The London School of Economics and Political Science

The Introduction of Digital Television in the UK:
A Study of its Early Audience

Paraskevi – Vivi Theodoropoulou

31 March 2012

A thesis submitted to the Department of Media and Communications of the London School of Economics for the degree of Doctor of Philosophy, London, December 2011

Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

The copyright of this thesis rests with the author. Quotation from it is permitted, provided that full acknowledgement is made. This thesis may not be reproduced without my prior written consent.

I warrant that this authorisation does not, to the best of my belief, infringe the rights of any third party.

I declare that my thesis consists of 95,827 words.

.

Abstract

This thesis examines the diffusion and adoption of digital television (DTV) in the UK by its first generation audience. It reveals how the spread of this innovation took place, and what were its early users and uses. The main objective is to investigate the processes through which a new medium and its new audience are shaped. The study focuses on Sky digital and its subscribers, covering the first four years of the life of DTV from its launch in October 1998.

My analysis draws on empirical data derived from a UK-wide postal survey of Sky digital subscribers, a series of in-depth interviews with Sky digital users, and an analysis of advertising and marketing materials. By revealing a slice of time in British media and audience history, I argue that a number of forces influence the shaping and meaning construction of a new medium. I exemplify these by analysing early DTV in terms of the circuit of culture, showing how these forces contributed to its social and cultural shaping.

DTV is a hybrid medium encompassing both old and new services. In discussing how it was promoted, taken up, used and made meaningful in the lives of early users, I address wider issues of how people understand and accept *novelties* and whether/why they are *receptive* to *change,* or *resistant* to it, staying attached to old habits. In demonstrating that early users focused on the offer of more channels/bigger choice/better picture and did not rush to embrace the new interactive internet-like features of DTV, I discuss how despite the *hype* presenting DTV as transformative, and despite fast take-up, *access* to it *did not* necessarily *equate to use* of all its services. For early users, DTV was a relatively conservative enhancement of traditional TV. I argue that the introduction of a new medium entails *continuity* not only in technological development, but also in consumption processes, resulting in the co-existence of 'old' and 'new'.

Several theoretical perspectives and methodologies are integrated in the emergent *history* of this now old medium when it was new. The thesis recounts DTV's biography as manifested in the moments of production and design, representation and, particularly, consumption. The thesis is informed by and adds to theories of diffusion of innovations and of domestication. Its core theoretical contribution is that, in empirically addressing the relationship between new media diffusion and social change by drawing on domestication theory, it advances the theory of diffusion of innovations, expanding its theoretical and methodological scope by examining social and cultural processes within the household and people's lives.

Contents

List of Tables

List of Abbreviations

ADSL	Asymmetric Digital Subscriber Line
BARB	Broadcasters' Audience Research Board
BBC	British Broadcasting Corporation (since 1927)/ British Broadcasting Company (before 1927)
BFI	British Film Institute
BiB	British Interactive Broadcasting holdings limited
BMRB	British Market Research Bureau
BSB	British Satellite Broadcasting
BSKYB	British Sky Broadcasting
BT	British Telecommunications
CD	Compact Disc
DAB	Digital Audio Broadcasting
DBS	Digital Broadcasting by Satellite
DSL	Digital Subscriber Line
DTT	Digital Terrestrial Television
DTH	Direct to Home
DTV	Digital Television
DVD	Digital Versatile Disc
DVR	Digital Video Recorder
EPG	Electronic Programme Guide
FG	First Generation
FGDTV	First Generation Digital Television
HDTV	High Definition Television
IBA	Independent Broadcasting Authority
ICT	Information Communication Technology
IDATE	Institut de l'Audiovisuel et des Telecommunications en Europe
IDTV	Interactive Digital Television
IT	Information Technology
ITAP	Information Technology Advisory Panel
ITA	Independent Television Authority
ITC	Independent Television Commission
ITV	Independent Television
OFCOM	Office of Communications
OFTEL	Office of Telecommunications
PPV	Pay per View
PSB	Public Service Broadcasting
PVR	Personal Video Recorder
SES	Socioeconomic Status
SNA	Sky News Active
SSA	Sky Sports Active
SSE	Sky Sports Extra
STB	Digital Set top box or Digi-box
UHF	Ultra High Frequency
VCR	Video Cassette Recorder
VHF	Very High Frequency
VoD	Video on Demand
WIDTV	Widescreen Integrated Digital Television

Acknowledgements

This has been a long journey. Like Odysseus, I met a fair share of stormy weather in this journey towards my Ithaca… Storms unexpected and recurring; they prolonged my journey, made it difficult and often seeming impossible to complete. Yet, like him, I also had with me gods, and good spirits; my companions, and friends that stuck by me and helped me eventually get there… A few of them are listed below.

My dad, Giannikos Theodoropoulos, who I lost in the middle of this journey, gave me all the values that make me who I am today and the love, determination and commitment to one's cause. This work, along with the fact that I'm strong on my feet today, I hope is evidence of the good job he has done. It is dedicated to him.

Professor Sonia Livingstone, my supervisor, has been simply amazing. I was so fortunate to receive her intellectual guidance and valuable academic support during my studies! Her loyalty and trust in me, her patience and encouragement, not giving up but always being there supportive and inspiring in most difficult circumstances, played a key role in the completion of this project. Thank you Sonia for being such an inspiring, committed and caring supervisor. The late Professor Roger Silverstone, my co-supervisor in the early days of this project, provided me with a solid academic foundation and the drive and vision I needed in progressing with my PhD. He would have been so proud to see this thesis finished. Roger will always be a source of inspiration for me. I will always cherish our discussions, his advice and supportive words.

This PhD received financial support from a number of institutions. They all made its realisation much easier and immensely contributed to its completion. Thank you to the State Scholarship Foundation of Greece for funding the first stages of this research. And thank you to the Alexander S. Onassis Public Benefit Foundation for the scholarship offered to me at the later stages. Especially to Ms G. Pavlopoulou of the Onassis Foundation a big thank you for your impeccable professionalism and for your encouraging words. Thanks also go to the Department of Media and Communications and the department of Sociology at the London School of Economics for their financial assistance.

I am very grateful to my examiners Hugh Mackay and Leslie Haddon for their constructive feedback and their thorough, critical and reassuring assessment of this thesis.

My friends Myria, Giota and Cornel stood by me and helped me throughout this project. Their loyalty and friendship is priceless. Myria Georgiou was family to me in both good and bad times, always there to offer her help. Words cannot describe how grateful I am for her support. Myria and family, thank you! A very big thank you to Giota Alevizou who was sister to me and graciously gave me more than I needed also. Cornel Sandvoss, equally, helped with every-day and academic difficulties. I so much appreciate your help. My thanks also to Elena Economou for her support and friendship all these years.

Chapter 1: Introduction

Introduction

This thesis studies the introduction of Digital Television (DTV) in the UK, and its early audience. It examines the early shaping of, and meaning DTV acquired when it was new, and was newly launched in the UK at the end of the 1990s. A range of factors - social, technological, political, commercial, cultural, historical - are seen as contributing to the meaning construction of early DTV, and its social shaping. Some of these are analysed in the chapters in this thesis. Chapter 1 sets the context for the research and reviews the digital landscape at the time of the introduction of DTV, given the prospective switch-off of analogue television and Europe wide policies for a total transition to digital broadcasting. I examine the context surrounding the advent of DTV in the UK, the main market players and the DTV offering, and the pre-launch media promotional discourse.

DTV was introduced in the UK in 1998 based on advances in technology in the 1990s that made digitalization of television signals possible and led to digital broadcasting. DTV promised to change traditional television and television viewing. Digitalization allows several channels to occupy the frequency/(electromagnetic) spectrum space formerly occupied by a single analogue channel, and early DTV delivered hundreds of channels offering unprecedented choice of televised content. It transformed traditional television to a multichannel service offering improved sound and visual quality, and a number of interactive services. In this way, television begun to move from a linear to a more participatory or two-way mode of broadcasting and to take on some of the functions offered by the internet. Interactivity on television was promoted by the television and electronics industries and by government. It was believed that in addition to economic growth and financial gains, it would bridge digital divides and enable the equivalent of the internet on television, allowing universal internet access via the popular medium of television. Early DTV also provided pay per view (PPV) programming and access to radio programmes. Leading DTV providers were delivering (near) Video on Demand (VoD) facilities enabling users to

record/retrieve television programmes transmitted at anytime, on any channel and to watch them at a time convenient to them.

In the early days of digital services rollout, the UK was considered the most developed market in the world. Penetration was high, and it was the first country to deliver digital services on all three platforms of satellite, terrestrial and cable. In 1998, it was the first country to have a satellite *and* a terrestrial broadcasting system, with BSkyB launching the digital satellite operator, Sky digital, in October 1998, and ONdigital launching the world's first digital terrestrial service one month later (Cooper and Springett, 2008, p. 224). The cable operators, Telewest and NTL,[1] launched their digital services in 1999, making DTV available, on a subscription basis, on all three platforms.[2] By the end of 2001, the UK was recording the fastest DTV penetration in the world with a take-up of 37%.[3]

Terrestrial DTV

A significant development in the DTV market in the UK was that in 2001 ONdigital was rebranded ITV digital, but went into administration after extensive financial loss. Following this, the 'Freeview service was launched in 2002 to rescue the [terrestrial] platform as an exclusively free-to-air service' (ibid., p. 224). This is a subscription free service and, although technologically inferior compared to satellite, and offering fewer channels and limited interactivity, since 2008 has exceeded Sky digital in subscriptions becoming the most popular service. Freeview has facilitated government plans to shut down analogue television transmissions. For this shutdown, a phased region by region switch-off timetable was developed by the government with input from Ofcom (Office of Communications) and the broadcasters. The shutdown of analogue broadcasting signals started in 2007 and is expected to be completed in 2012 (Starks, 2007; Digital Britain report, 2009).

The shutdown of analogue transmissions and entry of the UK to a *fully digital era* means the end of analogue *terrestrial* transmissions and requires the participation of cable and satellite DTV also to enable the creation of a digital UK in broadcasting. The focus of the research in this thesis is satellite DTV.

---

[1] NTL took over Cable and Wireless which was in operation up to July 1999.
[2] More recent developments in the digital market are discussed in succeeding chapters of this thesis.
[3] ITC, (2002). *Progress Toward Digital Switchover – An ITC Consultation*. October 2002, p. 13.

Satellite DTV

The research for this thesis focuses on the diffusion and adoption of satellite digital television and the pay television service, Sky digital, in particular. Sky was the first company to launch DTV services in the UK and capitalised on converting existing subscribers of its existing analogue multichannel television service (Sky analogue) to its new digital platform. Sky digital offered improved visual quality, a vast choice of programming, PPV and (near) video on demand programming, and access to interactive services such as home-shopping, home-banking, emails, betting, interactive games and other internet-like services. At the time, Sky delivered the technically most advanced service, the most television channels, and was a pioneer of interactive television in the UK. Since its launch, Sky digital has emphasized channel choice and the variety of content in its packages.[4] Sky built on its branding as an entertainment programming provider, established after the launch of Sky analogue, and launched Sky digital which initially offered more than 140 channels. By the end of 2004 it was offering more than 480 channels.[5] These were general interest channels, offering mixed programming, or singe-genre thematic channels focusing on sports, news, documentaries and music, for example. Apart from increasing the number of channels and programming choice offered to viewers, 'from the outset [Sky digital] employed interactive services as a differentiator' (Cooper and Springett, 2008, p. 227).

Early Sky digital interactive services fall into two categories: 'online' and 'enhanced'. Both presented an environment that looks like an enhanced teletext service or an early web interface. 'Online' *services* were provided by Open....,[6] the umbrella service that featured TV-banking, shopping, emailing, games, and information services such as travel, weather, etc. 'Open....' services functioned independently of the television context and the television schedule in the sense that users had to interrupt their television viewing in order to engage with them. To access these services users exited the television environment and entered another 'space', similar to a basic internet website or an enhanced teletext page, using the Sky remote control and its interactive buttons. This was a transactional service which, as the chapters in this thesis will show, was not popular with users. 'Open....' was launched in October 1999, and was offered

---

[4] A more detailed presentation of Sky digital's television and interactive services offer is provided in appendix 1.
[5] BSkyB, (2005). *Sky Fact Book*.
[6] Hereafter: 'Open....' for clarity reasons.

free to all Sky subscribers. To use the service, the digibox had to be connected to the telephone line. In May 2001 'Open….' was replaced by Sky Active, which incorporated all the interactive features of Sky digital and those from 'Open....' such as betting and information services.

In the early days, these online 'internet-like' services accessed on television were a novel feature, but were rather slow to download and use, and the technology, graphic design and choice could be described as a primitive and limited version of the internet. This perhaps was because they were designed to offer 'internet-like' not actual internet services or internet access. The 'walled garden', limited range of services that 'Open….' offered was technologically inferior to the internet, but BSkyB and British Interactive Broadcasting (BiB, the owner of 'Open….') considered it adequate as a television interface. It should be noted that at the time BiB was financially supporting the Free Digital Initiative and the digibox subsidy offered by Sky digital, to a significant extent. It expected to recoup its investment via revenue from these interactive television services.

'Enhanced' *interactive services* are those services available within television programmes, incorporated into the television content, whose use does not interrupt content flow or the viewing practice. Viewers can continue to watch the programme on small 'window' inserts. This category of Sky digital services at the time of research included Sky Sports Active (SSA), offering instant replays, match statistics, highlights and alternative camera angles in football games and other sporting events, and Sky News Active (SNA) offering background and updated information on news stories, weather, etc. SSA and SNA are permanent interactive services and feature all the time in Sky Sports Extra, Sky Sports and Sky News channels. Since my research, numerous multistream enhanced services incorporated in programmes have been developed, turning television into participation television, allowing viewers to vote and participate in quizzes, communicate with the programme producers, find background information on the programme and use camera angles of their choice. These services, depending on the nature of the television show, have an entertainment or informative character. Enhanced features of programmes, such as *Big Brother*, and BBC's *Wimbledon Tennis Tournament*, *Walking with Dinosaurs, Football World Cup* and *Test the Nation*

delivered via Sky, were amongst the most popular in the first years of enhanced interactive DTV.[7]

Publicity and Media Discourse

The introduction of new technologies is accompanied by technological enthusiasm and/or moral panics, delivered through the media and interest groups. The media coverage on DTV, both before and after its launch in the UK, was extensive and continuous (Weber and Evans, 2002; Curran, 2009). Government and early policy initiatives on analogue spectrum switch-off, DTV providers and the electronics industry, Sky digital and the Murdoch press, were a few of the institutions behind the media's strong focus on DTV at the time of its introduction in the UK. This continuous media presence of DTV, along with DTV providers' targeted advertising and marketing, added to the widespread awareness and interest surrounding the new technology and also likely increased take-up rates. Of course, media discourse is not always unbiased or uniform and usually reflects the objectives of the interest groups promoting it – objectives which may change over time. In this thesis promotional discourse - whether from the media, the government, the industry or Sky digital - and media coverage are considered important exactly because they shaped the meaning of and values attached to DTV.

The different interest groups and the discourse surrounding DTV are discussed in the chapters in this thesis. Chapter 4 discusses government discourse and chapter 5 analyses in depth Sky digital marketing and advertising. Chapter 1 introduces the media and press coverage of DTV during its launch.

Weber and Evans (2002) in their comparative research on the meaning construction of DTV by the media in the UK, US and Australia, stress how successfully and intensively DTV was promoted by the UK press, in both its pre-launch and post-launch periods, in terms of raising awareness and increasing take-up. They make a direct link between the 'strategic' promotion and meaning construction of DTV by the UK press, and the diffusion and spread of DTV. In adopting a mainly technologically

---

[7] At the time of the quantitative empirical research the only enhanced services available were Sky Sports Active, PPV and radio. These, and the available online services provided by 'Open….' - shopping, banking, emails, electronic games - were included in my enquiry. Many of the interactive features, enhanced and online, that were introduced later, such as SNA and Walking with the Dinosaurs, were discussed in the in-depth interviews.

deterministic approach to reporting in the days *prior to launch*, this press coverage served to raise interest in the coming technology. DTV was presented as 'irresistible' and appealing, as 'inevitable' and a 'must-have'; it was presented uncritically as something good, something great, that would instantly change television and our lives in a positive way. Arguably these portrayals meant that DTV was not examined or explained adequately in the first stage. Excitement, curiosity and expectations were built. After its launch, as Weber and Evans (2002) show, reporting on DTV, apart from determinism and hyperbole, took a more social-constructivist approach, adopting a consumer focus and emphasizing the human element. Press articles after the launch of DTV tried to reduce the confusion created by an unknown new technology and inform consumers about its practicalities; they addressed consumers' concerns on cost, and the advantages and benefits of the technology; described differences among platforms; and tried to reduce confusion over digital switchover. For two years after the launch of DTV, there was continuous coverage, especially in the Murdoch press, and as Weber and Evans (2002, p. 446) emphasize '[d]uring this two-year period in which the media maintained focus on the British digital television system, the technology diffused dramatically'. These authors, on the basis of a content analysis of UK press articles, point out that the increase in social construction articles happened at the time of a great increase of DTV take-up and conclude that:

> [w]hile the research results support the media's continued coverage as a key factor in the successful diffusion of digital television in Britain, much of the foundation for this success was laid in the pre-launch stage, which provided crucial momentum for digital television to diffuse smoothly and rapidly. (Weber and Evans, 2002, p. 450)

As will be discussed later, DTV's early diffusion was rapid. Press promotion and advertising facilitated its impressive early take-up. Despite the qualitative differences in the rhetoric (initially deterministic, later constructivist) and the orientation of each interest group, it seems that ultimately they worked collaboratively. Technologically deterministic approaches originally inspired awe and gave DTV take-up momentum; whilst the social constructivist oriented publicity that followed resolved the puzzles and confusion created by the entry of this new technology in the market, making it more tangible and gradually demystified. In this way, the momentum of diffusion was maintained. How this publicity and discourse may have influenced Sky

digital subscribers, and shaped their expectations of DTV is addressed in chapters 6 and 7.

Thesis Chapter Plan

The chapters in this thesis tell the story of the early shaping of DTV in the UK. Chapter 2 discusses the theoretical traditions that inform my study and presents the theoretical and conceptual framework for the research. The spread and adoption of DTV is discussed from the perspective of diffusion of innovations (Rogers, 1962, 1995), which forms the basis of my study. To challenge its critics and weaknesses, namely determinism and linearity, I draw on additional theories rooted in the social shaping of technology and consumption theories to construct a more useful and complex theoretical framework to guide my enquiry. Given that adoption is conceptualized in this thesis as functioning in two stages, before and after the new technology is purchased, diffusion theory is limited to questions of 'access', and offers no adequate theoretical background for a study of questions of 'use'. Hence, I make a contribution to diffusion theory, but also expand and complicate it by drawing on the design and domestication framework (Silverstone and Haddon, 1996) which is more aligned to my focus on the household, users and uses of this new technology. However, this is not a domestication theory study. It is a diffusion type study that employs, and also reflects, design and domestication insights, but also methodologies, mainly to contextualize and qualify the diffusion of innovations approach by entering the household and talking to users. The circuit of culture (du Gay et al., 1997; Johnson 1986/87) is discussed next. This anchors theoretically the move from linear to cyclical approaches to communication, and provides a framework for the examination of the 'meaning' created around DTV in its early years. It adds structure to my analysis of the shaping of DTV namely in the moments of consumption and representation, but also identity and production. Chapter 2 ends by introducing the aims of, and research questions for, this research.

Chapter 3 discusses the multi-method design of my research. This consists of a quantitative survey of Sky digital subscribers, follow up in-depth interviews with Sky digital users, and an analysis of early Sky marketing and advertising campaigns. Chapter 4 provides the context of DTV's emergence. It reviews the history/evolution of UK broadcasting from the analogue to the digital era and links it to how keen audiences

were to adopt previous broadcasting technologies, and what the discourses around 'newness' and innovation at the time were. In so doing, it highlights the links between past and future, and emphasizes the evolutionary nature of new technologies, of television, and of Sky. It suggests that this evolution takes place in both technical and consumption terms. The chapter concludes the discussion with the arrival of DTV and the government rhetoric surrounding it.

Chapter 5 explores the meaning DTV acquired through 'representation'; that is through early marketing and design. It provides an analysis of early Sky digital advertising campaigns and the discourse on Sky digital created by Sky marketing, especially TV advertising, and corporate documents. By analysing how DTV was represented to the public, it reveals how a new technology acquires a meaning before it enters the household and is put into use. Moving from the symbolic shaping of DTV, chapter 6 examines its spread among the UK population. It reflects the pathway in the circuit of culture that links production and consumption, or the *before* purchase level of adoption that brings the technology to the home. Chapter 6 investigates questions of 'access' and 'who', 'why' and 'how' questions in particular. It maps characteristics and draws a profile of the early digital audience using data derived from the survey; reveals the reasons why people acquired DTV; and analyses the acquisition process or purchase decision-making. In linking the diffusion of innovations with the design and domestication approaches, it shows how, during this adoption-decision stage, new meanings are attached to the technology, even before use. I argue that it is at this point that consumption and domestication begin.

Chapter 7 focuses on the moment of consumption and highlights the shaping of DTV through use. It examines how first generation users responded to this innovation and offers an account of the uses it was put to in terms of channel and content preferences and use of interactive services. The relationship between old and new use patterns and habits is discussed, and the relevance of past experience for the development of new ones and the acceptance of the new technologies is highlighted. Interactive services, in particular, are examined by a use typology proposed to further explore users' responses to the innovation, whether and how past practice shapes new practices and users' attitudes to the internet and convergence. I argue that this was an audience generation 'in transition', in between the analogue and digital worlds, because users were simultaneously experimental and traditional. They adopted rapidly but consumed rather conservatively. The reasons for this response are discussed and

attributed, among other things, to the early technical limitations of DTV as an innovation, to the power of television as a screen entertainment medium, and to the evolutionary nature and slow rate of 'change' of cultural habits and forms. The final chapter, chapter 8, reviews the main findings of the thesis and draws some lessons from the first generation adoption of a new medium. The historical element is emphasized, and the contribution of this doctoral research to the theories of diffusion and adoption of new media technologies is discussed.

Chapter 2: Theoretical Framework

Introduction

My thesis studies the introduction of digital television (DTV) in the UK and its diffusion and adoption by first generation DTV (FGDTV) adopters. Focusing on the satellite platform Sky digital and its subscribers, it offers a case study of an innovation and early audience responses. In so doing it provides a historical account, because it records the first steps in the life cycle of a new medium that has now been taken up by a majority of DTV viewers in the UK.

This chapter describes the theoretical steps involved in constructing the framework for this endeavour. This theoretical framework of the thesis is based on the leading paradigm of the 'diffusion of innovations' (Rogers, 1962, 1995), which, over the years, has been widely used, and in a variety of disciplines, to describe the circulation of a variety of innovations. At the outset I approach the introduction of DTV through this clear-cut and straightforward model to portray the process of spread and take-up in its early days. It provides the tools to estimate and the dictionary of terms to talk about penetration rates, adoption patterns and adopter categories in a way that depicts and assesses DTV's impact as a novel good, and maps what its emergence creates. However, as an acknowledgement of the shortcomings of such an approach, I construct a more complex and meaningful framework that encompasses more compound theoretical models such as design and domestication (Silverstone and Haddon, 1996) and the circuit of culture (du Gay et al., 1997; Johnson, 1986/87). The former allows me to move from questions of *access* to questions of *use*; the latter provides an overriding structure that encompasses and brings together the questions of concern in this project.

In the succeeding sections of this chapter I discuss the three approaches of diffusion of innovations, design and domestication and circuit of culture. Their key principles are presented, their strengths and weaknesses highlighted and their relevance to the aims of my research explained. I present my research questions and approach against this background.

Diffusion of Innovations

DTV is an innovation in broadcasting. It is a novel good introduced in the UK in the late 1990s, for eventual take-up by the whole population to enable switch-off of analogue broadcasting signals. The most used theory examining the spread of innovations from the moment of their introduction to the point when they are taken up by the members of a social group or population is Everett Rogers's (1962, 1995, 2003) diffusion of innovations theory. The Diffusion or Communication of Innovations theory was expounded mainly by E. M. Rogers, F. Shoemaker and L. A. Brown and began life in the 1960s as a set of studies within anthropology, rural sociology, and medical sociology, but soon spread to other domains of enquiry and a multitude of innovative products.[8]

Although it was criticised for several years, the status of diffusion research 'has improved considerably in the eyes of academic scholars' (Rogers, 2003, p. 103) and, through an impressive amount of diffusion research projects, has achieved a prominent position in the academic world. It seeks to answer *why* and *how* the circulation of new ideas, products or practices takes place; and has been established as a dominant theory in many disciplines from public relations, advertising, marketing and economics, to social sciences including social psychology, communication, sociology and anthropology. Rogers and Larsen began studying the diffusion of information and communication technologies (ICTs) in 1984 through an examination of the diffusion of home computers in Silicon Valley (Green, 2002, p. 27). Since then their theory became more popular in communication scholarship and more recently in new media studies acquiring a centrality, as noted by Boczkowski (2004, p. 256) evident in the multitude of diffusion studies on a wide variety of ICTs.[9] Diffusion theory is applied to tackle the main concern in this thesis about how the new technology of DTV entered society and what were consumers' responses to it.

---

[8] The model of diffusion of innovations derives from a reappraisal of the many studies in these domains and the drawing of common themes and patterns that appear in them.
[9] Indicative is the work of Garrison (2001) on the diffusion of online ICTs in newsrooms, Dupagne (1999) on potential HDTV adopters, Mahler and Rogers (1999) on the adoption of telecommunication services by German banks, Atkin et al. (1998) on internet adoption, Lin and Jeffres (1998) on the adoption of multimedia cable technology and Neuendorf et al. (1998) on prediction adoption/use of audiotex information services and of fax.

Diffusion concepts

Diffusion theory separates the *diffusion process from* the *adoption process*. The *diffusion process* is the overall course of the spread of the novelty from its source of creation to its ultimate users. It is the stage emphasizing the ways in which a new product and the ideas associated with it are communicated to potential adopters through the intervention of intermediaries, the *change agents* (Rogers, 2003). Change agents, such as policy makers, marketers, advertisers, the media, broadcasters, retailers etc., are the main facilitators of diffusion, and determine and raise the novelty's *communicability.* The diffusion stage looks into strategies that will enhance of DTV's communicability and adoption. As Rogers (2003, p. 35) explains:

> Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system…[it] is a special type of communication concerned with the spread of messages that are perceived as new ideas…Diffusion has a special character because of the newness of the idea in the message content.

Diffusion theory underlines that regardless of whether these strategies achieve their final aim - adoption - they do influence people's *knowledge* of the new technology or innovation. They contribute to the circulation of the new idea in society and to the understanding of what the new technology is. It could be inferred that diffusion strategies help people make sense of the new, and become acquainted and familiar with it.

When potential adopters start to look for more information and show an interest in the new product this is the start of Rogers's 'adoption process' or 'innovation-decision process'. For diffusion theory, adoption is the 'mental process through which an individual passes from first knowledge of an innovation to a decision to adopt' (Rogers and Shoemaker, 1971, p. 25). Before purchase, *awareness* of the innovation is built and then *interest in* it develops. This is followed by the *evaluation* of information about the novelty and initial considerations about its value. Potential buyers conduct a *trial* of the new product (when possible) to reduce risk before proceeding to the actual *purchase/acquisition* (or rejection) of the innovation.[10] In a revision to his theory,

---

[10] This decision making/adoption model has received criticism in that the order of some of these stages might differ depending on the circumstance; evaluation might be a constant practice throughout adoption process and so might the possibility of rejection; purchase usually precedes trial than the opposite, and others (see Schiffman et al. 1997, p. 515).

Rogers (2003, pp. 20-22) refines his definition of adoption and its relationship to the process of decision-making. He claims that the innovation decision process comprises the stages of *knowledge development*, *persuasion*, *decision*, *implementation* and *confirmation* which lead to *adoption.*

The definition of adoption is somewhat blurred in diffusion theory. Is it a decision, a process, or the act of purchasing the innovation? Does it stop when the purchase decision is made, does it stop with the actual purchase or does it start with use? I conceptualize adoption as functioning at two levels: *before* and *after* the innovation enters the household. Diffusion of innovations seems to be limited to what happens at the first level. At the second level - after purchase - it does not provide an adequate theoretical framework for studying media consumption because it does not go past the front door to examine what happens after the innovation/product/technology enters the household. The assumption made about innovations in Rogers's notion of adoption is that the diffusion stage ends with adoption. However, it is in *adoption* and *use* that the life of an innovation starts *in the household*. Once technologies or innovations leave the marketplace, diffusion theory stops its enquiry. Yet, this transitional moment is of major significance for the consequences of innovation, their social and cultural shaping and, crucially, their further diffusion. This limitation is addressed in this thesis by turning to consumption theory and the wider area of sociology of consumption and domestication theory.

In this thesis, in relation to diffusion theory and the definition of terms I espouse Green's (2002, p. 28) summary of the process that '[the] different stages in which new products and innovations spread through consumer populations together make up the *diffusion process*, while the reasons and decision-steps that underpin a consumer's decision to take-up a new product are called the *adoption process'*.

Adopter categories

In looking at the process of the spread of novelties in society, diffusion theory emphasises the time factor. It assumes also that an innovation will be or is intended to be adopted by the whole population. The timing, promptness or relative delay in adoption is assumed to be significant and to indicate qualitative differences amongst consumers. In order to trace the diffusion of an innovation and to locate and test these differences amongst individuals, diffusion of innovations identifies adopter categories.

Rogers (2003, pp. 22, 280-81) distinguishes among five adopter categories: *innovators* (the first 2.5% of adopters), *early adopters* (the next 13.5%), *early majority* (the next 34%), *late majority* (the next 34%) and *laggards* (the last 16%).[11] The criterion for the classification is time or *innovativeness*: the degree to which consumers are relatively earlier in adopting new ideas/products than other members of their social group. This way, the theory also maps out the *level of penetration* or *rate of diffusion* of the new product in the population. Rogers's adopter categories indicate that an innovation is at the *early adoption* stage when it is taken up by 2.5%-16% of the population, reaches *early majority* when it is acquired by 16%-50% of the population and is at the *late majority* stage when 50%-85% of the population have taken it up. The rate of diffusion over time is usually depicted as an S shaped curve, which portrays initial slow take-up, followed by fast adoption and later levels off as the market reaches saturation point (ibid., p. 23; Hawkins et al., 1994, p. 414). At the time the present study was conducted it is estimated that DTV in the UK was entering the early majority stage. In particular, and as the calculations in chapter 3 show the FGDTV study covers innovators, early adopters and a small segment of the early majority (appendix 3, table 3.1.1). As explained in chapter 3, Sky digital users that had taken up DTV at the time that the sample for this research was drawn, until August 2000, are defined as the 'First Generation' DTV (FGDTV) audience because of their innovativeness – being principally innovators and early adopters.

Adopter characteristics

Certain adopter characteristics have been identified according to the adopter categories they fall into (Rogers, 2003, pp. 282-285). Overall, enthusiasm to adopt declines and reluctance increases across categories from innovators to laggards. *Innovators* are said to be risk takers, 'younger, educated, with a higher disposable income, socially mobile ('upscale') and socially involved' (Green, 2002, p. 31). For early adopters, the main category under study, the diffusion of innovations and marketing literature argue that *earlier adopters* of new products and technologies possess a distinctive set of characteristics quite similar to that of innovators. These relate predominately to adopters' socioeconomic status (Rogers, 1995, p. 185). A series

---

[11] Or laggards being the next 13.5% and non-adopters being the last 2.5%, according to the model in Hawkins et al. (1994, p. 417).

of 'personality' and 'communication behaviour' characteristics is also provided by Rogers (1995, pp. 187-189). He proposes that early adopters have more favourable attitudes towards risk (but take fewer risks than innovators), science, and education; have higher aspirations, higher levels of achievement motivation, higher exposure to the mass media and interpersonal communication channels and are less dogmatic than later adopters. They tend to be younger,[12] better educated, of higher social status, wealthier, more upwardly socially mobile, with relatively higher incomes than later adopters. They are socially active and integrated within social networks, active seekers of information about innovations and likely to be perceived as opinion leaders (Schiffman et al., 1997).

Early majority adopters are 'more likely to rely on interpersonal communication…but may be older than innovators and early adopters, less well educated and less socially active' (Green, 2002, p. 32). Similarly, *late majority* adopters 'are often older, with less status and social mobility…more inhibited by the risks of adoption...risks [that] are progressively greater to the laggards who adopt with reluctance…tend to be oriented in the past and have limited (or local) interactions' (ibid., p. 32). Diffusion theorists then suggest that it is the younger and better educated and the higher and middle classes that adopt first and introduce novelty in society; in other words that innovations spread from the elites to the masses.

This view seems to support Veblen's (1925) and Simmel's (1957, 1990), and Bourdieu's (1984) theories of consumption that elites consume novel products so as to maintain their status and differentiate themselves from the subordinate socioeconomic strata. On the other hand, members of the lower classes, with low cultural and economic capital (Bourdieu, 1984) imitate the preferences and consumption habits of the 'leisure class' so as to enhance and improve their social standing. It is through this on-going struggle between preservation and obliteration of social distinction that novel goods are introduced by the social elites and 'trickle down' (Simmel, 1957) the socioeconomic ladder. Both Simmel's and Veblen's theorizations of the circulation and consumption of novelties, albeit introducing the influential model of conspicuous consumption (Veblen, 1925) and suggesting that people do not just consume so as to cover needs, but also to exhibit wealth and distinction, have received a number of criticisms (Campbell, 1992) mainly because of the direction of emulation they support. Although the circulation of goods, trends and fashions from those with money and social status to those without, is

---

[12] Although research findings on the relationship between age and innovativeness are somewhat inconsistent (Rogers, 1995, p. 185).

a mainstream theoretical position, there is evidence that fashions and novel goods do not only 'trickle down' but also 'trickle up' and 'trickle across' the status ladder (Blumberg, 1974; du Gay et al., 1997; McCracken, 1988). Also, the 'trickle down' theory assumes a rigid social structure with clearly defined boundaries between classes, which is not always the case in some modern societies discernible by higher degrees of social mobility.

However, media history suggests that with respect to both 'old' and 'new' media technologies, research shows that early adopters generally fit Rogers's characteristics and, in most cases, their diffusion fits the 'trickle down' scenario. In the 1930s and 1950s respectively, the telephone and television were media acquired in the UK, first by the middle classes (Douglas and Isherwood, 1979; Fischer, 1992; Mackay, 1995) and data on the spread of computers and the internet in the US show that affluent young adults with good purchasing power were the first adopters (Lin, 1998 on computers; Atkin et al., 1998, and Cole, 2000 on the internet). An investigation of who are the earlier adopters and whether these patterns are confirmed for DTV is pursued in the chapters of this thesis.

From Conspicuous Consumption, to Diffusion of Innovations, to Distinction

Here, I highlight the linkages between these three theories which, despite their different backgrounds, I would suggest share a common theme. This is the *display of an identity*, through either consumption or diffusion or symbolism/design. Goods and innovations, as well as having functions, display who are their consumers, real or inscribed. Veblen in the 1920s showed how people consume goods on the basis of their cultural or symbolic significance, and how consumption is related to social stratification. In the 1950s Simmel developed this theory and proposed the 'trickle down' circulation of goods. The links to Rogers's model of diffusion of innovations and his stratification of adopters' categories, in my view, is quite evident. Rogers in some ways, operationalizes the ideas of Veblen and Simmel transforming them into administrative research tools. The characteristics of adopters, discussed above, were inscribed in Rogers's adopter categories through empirical research and real-life data. Rogers's transformation of his predecessors' consumption theories and offering of an applicable, administrative model for research into the circulation of novel goods seems to imply agreement with their basic principles. The innovation trickles from early

adopters, to the mass market and, eventually, to the laggards. Given that socioeconomic and other indicators of social identity tend to trickle down through adopter categories (from early adopters, to mass market, to late adopters), it can be inferred that Rogers offers a model compatible with those of Simmel and Veblen, but also akin to Bourdieu's in terms of the direction and spread of goods that they all propose.

Bourdieu in his work argues that all consumption is about distinction. People either consume to achieve individuality and distinguish themselves from others, or to imitate others and achieve social acceptance; in other words, so as to be *innovators* and *early adopters or* to be *followers*. Again, the links between the claims made by Bourdieu and Rogers seem rather obvious. There is also another parallel with Bourdieu: the need for social distinction, which seems comparable to the 'need for innovativeness' (Lin, 1998). This latter is the characteristic that pushes people to become innovators and early adopters, rather than laggards (Rogers, 2003); to be first, to achieve distinction. Novelty seeking and the need for innovativeness, in this sense, is a means of achieving social distinction (see also Lin, 2003, pp. 350, 352, 356).

Despite these broad similarities between diffusion theory and the above seminal theories of consumption, much of the work on the spread and acceptance of media technologies follows the diffusion of innovations tradition. My thesis contributes to this body of work. However, Bourdieu's contribution indirectly re-appears in my work, because of his influence on the theory of domestication which I turn to so as to examine the entry of DTV into the household and the meanings it acquires there through consumption.

Strengths of Diffusion of Innovations

Despite the weaknesses (which will be discussed later), diffusion theory also has some particular strengths. It can be helpful to many different enquiries because it deals with the theme of innovation and change, which has attracted attention from many theoretical domains, and because it provides a conceptual framework that can be applied in a variety of disciplines. It thus cuts across several scientific fields and 'provides a common conceptual ground that bridges…divergent disciplines and methodologies' (Rogers, 2003, p. 104).

With respect to media technologies, diffusion theory allows us to form a historical account of the introduction of a new technology across the years. As Rogers

(ibid, p. 104) claims '[o]ne can understand social change processes more accurately if the spread of a new idea is followed over time as it courses through the structure of a social system'. Diffusion theory also provides the tools to outline this spread and, through comparison, observation and association, achieve a better understanding of the processes of social change. It allows us to compare and contrast the courses of diffusion of different media *across history* and to contextualize current data historically. A diffusion approach also allows comparison among the courses of different media, which can reveal their similarities or differences and thus 'counter "media-centrism" in its tendency to construe each medium as unique' (Livingstone, 2002, p. 34). Diffusion theory provides the tools to compare and contrast the courses of different media *across cultu*res. In an age when the western world is being bombarded by new technologies and is surrounded by media, diffusion studies play an important role in helping to map the status of media saturation so that we can identify possible changes, effects, disparities and inequalities.

Approach and conceptualization

In the context of this thesis, diffusion theory provides a framework within which to examine the introduction of the new medium of DTV to the market and look at some of the mechanisms that helped raise its communicability. First, it helps to set the scene for DTV's early dissemination so that we can estimate penetration levels and assess pace and rate of adoption, form diffusion curves and establish a starting point against which the further development and take-up of this new medium can be evaluated and contextualized. Diffusion theory also provides a context against which to examine the process of acquisition, identify the reasons for take-up, and investigate the decision-making process that led to it, so that we are better positioned to understand part of the story of how and why this new technology of DTV entered our social structures and homes. Diffusion theory is also important given the historical aspect of my research. This thesis focuses on the first phase of DTV diffusion at a time before the transition to and plan for a Digital Britain emerged and began to be implemented. The diffusion model allows me then to illuminate the early stage of DTV life at a time when both the market and adopters were struggling to impose their own *meanings* on this new medium, with implications for policy and for the evolution of the plan for a transition to digital broadcasting across the country.

Alongside key features of diffusion theory used to support my account, I conceptualize the innovation process and circulation of goods as cyclical rather than as the linear process that diffusion theory would seem to suggest. I would suggest that novel goods and media technologies are designed with specific users in mind; diffusion mechanisms such as marketing and advertising are employed to 'catch the consumer' (Silverstone and Haddon, 1996) and in so doing ascribe the product with a meaning. Finally consumers use their own socio-cultural resources to decode the inscribed meaning in the product and enhance it, through use and experience, with their own meaning and understanding. The relevance of the circuit of culture theory is evident at this point. This will be discussed later in the chapter.

Overall, diffusion theory provides the tools to investigate and answer questions about who are the FGDTV adopters and who wanted to take DTV up and why. But such an enquiry and its interpretation should not be de-contextualized from the wider spaces and forces that shape this process: *the market* and *the household*. The answers to these questions will provide directions for the further exploration of how DTV was later put to use and why. Livingstone (2002, p. 34) argues that 'an account of access complements that of use: for individuals, access precedes and hence, in both direct and indirect ways, constrains the possibilities of use'. The adoption process is thus very important because it influences use and appropriation. I suggest, therefore, that questions related to use should not be de-contextualized from those of diffusion and availability of new media; and the insights from accounts of diffusion and adoption are enhanced by an examination that includes questions about use. I concur with Livingstone (2002) that access and use are interrelated and should not be examined in isolation. For this reason I examine both these areas and domains in my thesis and in the following sections of this review.

Limitations of Diffusion of Innovations

Despite the strengths of diffusion theory it has attracted some criticisms. It has been argued that, a marketing perspective on innovation strips the process of 'change' of its social and cultural character (Green, 2002, p. 35). Diffusion of innovations seems to suggest a linear model of adoption, starting from the source of creation and the innovation, which is communicated through various agents to consumers, who take it up or reject it. It leaves many unasked questions and many aspects unaccounted for and has

been criticized for its failure to capture the social significance of the diffusion process and for considering the technologies as given (Green, 2002; Rogers, 2003, pp. 103-104).

Another critique of the diffusion model is its pro-innovation bias; the fact that it approaches innovation as good per se (Rogers, 2003, pp. 111-117). The assumption that innovations should be diffused to all, and quickly, is deterministic, somewhat simplistic, and reveals the absence of a critical position towards the complexities of the diffusion process and issues of power.[13] Why is technology adoption necessarily good and why should everybody adopt? More importantly, why are non-adopters considered to be disadvantaged or deficient? As Parks (2008, p. 2) suggests, the reasons for non-adoption might simply be *reluctance* to replace a still functional technology or, as Dawson (2010, p. 98) describes, due to *conservativism* or even a conscious *resistive stance* against the technological frenzy of our times. Wyatt (2003) along the same lines, in her discussion of internet adoption argues that often the possibility of non-adopters *consciously* deciding *not to* adopt is just ignored by policy makers and advocacy groups. Of course, as the years of diffusion research show, non-adoption can be a result of social inequalities and individual lack of resources, but this is not to say that all non-adopters should be regarded as helpless individuals who lack agency. Wyatt (2003, p. 79) argues that 'there is such thing as informed, voluntary rejection'. In the case of DTV, for example, non-adopters might simply be those 'who have resisted, put off, or not yet gotten around to replacing their analogue equipment' (Dawson, 2010, p. 98). In any case, in both diffusion theory and government policy on new media adoption, often non-adoption and 'non-use [are] seen as a deficiency to be remedied' (Mackay, 2007, p. 44). In his research on DTV use in Wales, Mackay (ibid.) argues that 'there is little acknowledgement...of the voluntary rejection of digital television, though this research shows that many non-users are former users', and apart from the DTV 'have-nots' there are 'want-nots' who consciously *resist* or *reject* adoption. Thus, we need to maintain a critical stance towards the diffusion model and government policies implementing it, and to what their *dictionary* of terms and discourse implies for adopters/non-adopters. We should keep in mind that there is a difference between *non-adopters by circumstance* and *non-adopters by choice;* or *adopters by default* who have no other alternative but to adopt.

---

[13] It also neglects the fact that the result of this process, adoption, often leads to a widening of socioeconomic gaps and inequalities (Rogers, 2003, p. 135).

However, a *positivist approach* to novelty and change does not mean that the diffusion model is of no analytical value. Rogers seems to be isolating certain factors and processes in the diffusion process rather than stripping them of their social context. In fact, the 'two step flow *of diffusion*' he proposes (Rogers, 2003, p. 304), based on Katz and Lazarsfeld's (1955) seminal work on *personal influence* and the *two step flow of communication*, has a somewhat social attribute and partly amends the perceived linearity by suggesting that some links between various social actors/agents might be more important in the adoption of technology than their straightforward connection with the source of creation and official change agents. For example, early adopters, the first to take up the novelty, can positively or negatively influence its further diffusion. People close to them tap into their expertise, and early adopters' discussion of their experience of use provides information that can encourage or discourage other people from adopting. These early adopters become opinion leaders whose experience and actions can influence other potential adopters. Yet this simple interaction is not enough in a world of multiple connections and influences, in a world of mutual and continuing shaping between society and technology, between the variable actors implicated in the circuit of innovation. I draw on key features of the design and domestication framework and the circuit of culture framework to overcome the limits of notions of a two step flow of diffusion and identify the variety of interactions involved in the dissemination of technology.

Overall, critics of diffusion theory argue that it suffers from technological determinism by not questioning the origins of the technology and not pursuing an exploration of its wider social effects. For its critics, diffusion of innovations is at odds with various sociological theories proposed to explain the relationship between technological evolution and society, such as social construction (SCOT) and the social shaping of technology theories[14] (Pinch and Bijker, 1984; MacKenzie and Wajcman, 1985, 1999). It '… can be read as adopting a technologically deterministic assumption that social change results from technological innovation, an assumption which many

---

[14] For example work that broadly falls under the paradigms of social shaping and social construction of technology, is the work of Pinch and Bijker, 1984 and 1987 on the development of the bicycle, Mackenzie, 1987 and 1990 on strategic missile technology development, Ceruzzi, 1998 on inventing the personal computer, Callon, 1986 on the electric vehicle development, Kranakis, 1996 and 1999 on the construction of a suspended bridge, Cockburn, 1983 on printing machinery, Barnes, 2000 on the evolution in development of personal computer innovation and others. These have mainly emphasised invention, design and the development of technology in laboratories and how innovation takes place in industry.

have challenged' (Livingstone 2002, p. 34). But while Rogers takes technologies as given and does not discuss their origins, effects or changes on societal structures, this does not mean he rejects their social, cultural, technical and scientific shaping. The change he stresses is that caused by adoption, and it is limited to moving from the state of 'not having' to that of 'having' a product or technology. This is where he chooses to stop his enquiry.

As already noted, adoption, for this study, functions at two levels, *before* and *after* actual purchase of the innovation. The diffusion model does not look at what happens after purchase, the period where its effects or changes are more likely. It examines only how awareness of and interest in the new product develops and how they lead the individual to adoption/purchase, and why. This decision-making process, however, as I suggest in the next section, can later, after purchase, affect use. The diffusion model would seem to be more open to criticisms of its being simple, limited or inconclusive and leaving some gaps and unaccounted for issues.

In my thesis I try to counter the weaknesses of diffusion theory by exploiting consumption studies to investigate what happens after a positive decision to adopt is taken. Although diffusion theory addresses questions related to access, it leaves questions of use untouched. In the same way that access does not guarantee use in any straightforward fashion, knowledge of access does not guarantee knowledge of use. Diffusion curves are only part of the story of the adoption of new technologies and, although illuminating about the spread of a new technology over time, and of the pace of its take-up in relation to other media, say little about the actual uses to which it is put over time, or the processes by which it becomes appropriated, objectified and incorporated into the user's everyday life. I explore such aspects by adopting a consumer perspective derived from sociological, social shaping, and anthropological research which is related to what happens after adoption.

From Diffusion to Domestication

Silverstone and Haddon's (1996) 'design and domestication of communication technologies' model reflects the principles of social shaping theory in the context of media technologies. A revised, updated and extended version of Silverstone et al.'s (1992) domestication theory, this model also includes the space of production or design of technological innovations. It emphasizes the multiple dynamics of the innovation process and underlines the role and characteristics of use, which previously had been overlooked in diffusionist traditions or limited to market research data. The model attempts to 'highlight the activities of consumers who, within their instinctive and perplexing forms of rational and non-rational behaviour, both complete and rekindle the innovation cycle'(Silverstone and Haddon, 1996, p. 45).

This framework, by focusing on the interrelationships between design and domestication, aims to 'identify the particular elements of the careers of information and communication technologies as they move through the spaces and times of innovation' (ibid.), from the market to the household, from development and launch to consumption, and then back again, in the continuous cyclic mode of technology development and use. It provides the tools to investigate issues of concern in the social shaping tradition, by proposing a model that encapsulates the process of a new medium's development, diffusion and consumption that allows us to grasp the rudiments of the process. Contrary to diffusion theory, however, it conceptualizes innovation as a cycle and privileges the role of the consumer, but without uncritically optimizing his/her power or claiming to 'resolve all problems of determinacy and indeterminacy in the innovation process' (ibid., p. 44). For Silverstone and Haddon (1996), production and consumption, innovation and diffusion, the market and the household 'are not related to each other in a singular or linear fashion, but are the product of a complex pattern of activities in which producers and consumer-users, as well as those who intervene in and facilitate the process of consumption, take part' (ibid.). Thus, even though part of the model, design, looks at the same area as diffusion studies it attempts to avoid the linearity and positivist approach of diffusion theory it was originally intended to counter. Most importantly, unlike diffusion theory, it goes beyond the front door and examines what happens in the household to the innovation technology after it is purchased. Silverstone and Haddon's design and domestication model has been influential in studies of new/novel media technologies for the added

reason that it emphasises the issues of *newness* and *taming* the newcomer medium, while also articulating the existence of a reciprocal relationship between the market and the household, and between the objects and subjects of consumption. For these reasons it is highly relevant to this thesis.

Design

In Silverstone and Haddon's terms design is the first stage in the innovation process before take-up by users. It describes the conception, creation, production and retailing of an innovation. During the design of an innovation or new technology the producers and the market impose definitions and attach meanings to it. Silverstone and Haddon (1996) describe three stages in design. In the process of creating the artefact an aesthetic and functional value is injected into the new medium, which, unavoidably, contains notions related to the definitions of its use. This is the phase that concerns the actual making of the technology, what the technology can do, what purposes it serves and how it looks. It is the stage that involves engineers and manufacturers, but also funders, entrepreneurs, scientists, regulators, government organizations and designers. In the constructing the user phase, imagined and real concepts of the potential user are designed to construct an 'implied' reader/user which the technology/artefact itself proposes and by doing so, outlines some of its functions and utilities. It concerns envisaging the users at whom the technology is aimed. Finally, in the catching the consumer phase, the market undertakes the task of imposing its own definition on the new medium. This involves promoting and publicizing the artefact by means of marketing and advertising through the media and retailers, to encourage consumers to purchase the new product. At the same time, catching the consumer refers also to capturing notions related to the real user and incorporating them to improve the design of the product via information about consumption and about real users, derived from market research.

Coming back to the constructing the user phase, a number of scholars from the sociology of technology tradition and from cultural studies have suggested that technologies encompass images, preconceptions and assumptions about the potential users and their behaviour and guide the real ones to specific uses. Silverstone and Haddon (1996) discuss their concept of constructing the user in relation to Woolgar's

(1991) *configuring* the user 'where 'configuring' includes defining the identity of putative users, and setting constraints upon their likely future actions' (Woolgar, 1991, p. 59). In other words the user is configured into the hardware, and software, of the technology by the manufacturers, designers and hardware producers.

Woolgar's empirical research was an ethnographic account of the design process of a microcomputer within a computer manufacturing company and not based on the consumption of the technology by real users at home. Instead, among other phases of the design process, he attended usability trials within the company through which producers observed the interaction between trial users and the technology and developed images, understandings and ideas of who the user is. Such ideas about the user, he explained, are injected, incorporated or configured into the technology. However, as also argued by Silverstone and Haddon (1996), it is Woolgar's limitation that he views users in just technical or functional terms, as isolated, and taken out of the context of their social and cultural world; the same applies to the technology-user relationship.

Akrich (1992) conceives technology as a 'script' created by designers and producers. She contends that when constructing a new technology designers make hypotheses about, reflect and embody in the technology assumptions about the social world; and continues: '[a] large part of the work of innovators is that of 'inscribing' this vision of (or prediction about) the world in the technical content of the new object. I will call the end product of this work a 'script' or a 'scenario' (Akrich, 1992, p. 207). [15] This script inscribes the roles (and often rules) for users; their actions and behaviour. '[L]ike a film script, technical objects define a framework of actions together with the actors and the space in which they are supposed to act', Akirch (1992, p. 208) explains. The uses of the technology are built into its design and reveal power relations between producers and consumers, with the former controlling how the technology can and will be used. The technology may then be 'de-scripted' when taken up and used in real life by the household users.[16] Overall, Akrich, in her conception of the design and construction of technologies, is in agreement with Woolgar in that technologies contain

---

[15] Akrich (1992) empirically looked at the design and use of photoelectric light kits in Africa. These were designed by western producers who envisioned users as people who would tamper with the electricity supply. Electric kits were thus designed to stop such attempts, and the inscribed 'docile' users had only few basic options with which to operate the kit, and even fewer to mess about with it.
[16] See also Akrich and Latour (1992) for further definitions and vocabulary on the concept of script.

notions of an inscribed user or that preconceptions of the user are configured into the technology text, according to Woolgar's terms.

Both Woolgar and Akrich 'textualise' technological artefacts. Woolgar (1991, 1996) with his 'technology as text' metaphor and Akrich (1992) with her notion of scripts or scenarios, propose that technologies reveal and reproduce the practices, beliefs, values and norms of those implicated in their manufacturing and design – but also in consumption. Woolgar (1991) proposed such a metaphor in order to stress the interpretative flexibility[17] of the technology and the variety of possible designs and uses. Cooper and Woolgar (2003, p. 3) elaborate on the notion:

> The analogy highlights the social contingency of the processes of both designing (writing) and using (consuming, interpreting, reading) technology….it draws attention to the complex social relations between producers and consumers, and points to the importance of conceptions of the user which are embodied by the technology texts. The technology text makes available a particular reading which can be drawn upon by adequately configured users.

Such metaphor then is useful for it enables researchers to consider the meaning of technologies as always negotiable across different environments.

Both the configured and inscribed reader concepts are taken up in my thesis and help me discuss how DTV technology constructed its early users and to reflect this implied reader/user/audience of DTV.[18] However, the limitations of the concepts and their associated theoretical frameworks are acknowledged, and steps to overcome these are taken with the use of the encoding/decoding model (Hall, 1980). Woolgar, for example, apart from not taking the wider social world/context in which both users and technologies operate into consideration and mainly treating users in functional and technical terms, has been criticised for taking the social shaping theory to extremes (see, for example, Kling, 1992), almost undressing technologies from their technical functions and suggesting that the meaning of a technology is not technological but inherently social. 'Constructing the machine as a text encourages us to see that the nature of an artefact is its reading', Grint and Woolgar suggest (1997, p. 72). This might

---

[17] The social construction of technology (SCOT) model suggests that the concept 'interpretative flexibility' indicates that a technology is culturally constructed and interpreted by the relevant social groups, all those people who are directly or indirectly involved with the new technology: the innovators, the designers, the developers, the users, the non-users. Even though, one might question whether interpretative flexibility is a value inherent in the technology or one that the relevant social groups possess and use, it suggests that consumers or designers associate different meanings with certain technologies and in this sense technologies can mean different things to different people.

[18] 'Implied' in the sense of 'that for which an author writes' (Sparks and Campbell, 1987; McQuail, 1997).

be true to some extent, but one should not forget that technologies do have a technical core, which, as Mackay (1997) suggests, does allow some 'determination capacity' to the technology.

Akrich, on the other hand, as a representative of actor-network theory[19] and in her critique of SCOT theory's concept of interpretative flexibility, contends that technologies are not always open to all sorts of interpretations, their openness is not forever lasting and does not provide infinite meanings. Such property, of a bounded interpretative flexibility, derives not only from consumers' reception and use but crucially also from the very nature of technology itself. Her 'script' notion thus acknowledges the power of the technology to drive meaning yet, when taken to extremes, could be considered somewhat restrictive for the user. She suggests that when the real user does not conform to the role assigned to him by the script, the technology and its design are an illusion or a 'chimera'; a failure by extension, one might propose. This might in some cases be true, but in a way constrains and *restricts* both the role of the real user and his capability to read the text/script in not pre-determined ways. Such limitation might be overcome with the use of Hall's encoding/decoding model, discussed later, which even though suggests a 'preferred' reading allows room for alternative decodings/readings to take place.[20]

Arguably, both Woolgar and Akrich acknowledge the power and role of both production and consumption in constructing the technology text. Yet they both emphasise production and design, and do not look at what happens or what changes (in power relations also) when the text is read, appropriated or re-negotiated by its real users; something that is at the core of this thesis and of the cultural studies approach discussed next.

Treating artefacts or technologies as texts provides a case of theoretical overlap between sociology of technology (Woolgar, 1991, 1996; Cooper and Woolgar, 1993; Grint and Woolgar, 1997) and sociology of consumption and cultural studies (Hall,

---

[19] Actor network theory, developed by B. Latour, M. Callon, M. Akrich and J. Law, suggests that society and technology are mutually constituted therefore we should not be asking either of the questions 'how technology shapes society' or 'how society shapes technology' separately. We cannot talk about social relations as if they were independent of technology or vice versa. For these theorists, people, either designers or consumers, institutions and the non-human component of technology are all actors that exert force in shaping technological development.

[20] Hall (1980) argues that texts are polysemic and invite a variety of readings. He identifies a 'preferred' reading which is the one that the text directs the reader towards but also alternative ones, like the 'negotiated' or 'oppositional' readings.

1980; Mackay and Gillespie, 1992; Mackay, 1997). For cultural studies theorists, drawing on Hall's (1980) encoding/decoding of texts, technologies also can be treated as texts inscribed with preferred meaning/readings by producers, designers and advertisers.

In particular, Mackay and Gillespie (1992) and Mackay (1997) suggest that the sociology of technology would benefit from a parallel to Hall's encoding/decoding model, with various preferred or dominant meanings being injected in technologies in an analogous was as in texts. Mackay and Gillespie (2002, p. 701) specify:

> Design and development processes may encode preferred forms of deployment in a technology (via its technical possibilities), which are reinforced through marketing. It is in this semiological sense that one might propose that a technology is a form of text… Technologies facilitate, they do not determine; and they may be used in a variety of ways. In short, there is a crucial role for the decoder of the text.

Of course it is noted that the power of the encoder and the reader are by no means equal, and there is also a degree of 'material constraint' posed by the technology. But such model is useful and in line with my research because it keeps the balance between technological determinism and hard theories of social construction and acknowledges both the power of the text/technology - and thus the actors that work on its design and diffusion - to propose meaning and direct technology use into specific readings, and the power of the reader/consumer/user to interpret it in ways that might escape designers estimations and intentions. Also, and importantly for my research, the authors argue that there is *functional* but also *symbolic* encoding of the technology - even though it might not always be possible to discern between the two. This suggests that different phases of design might deal with different types of encoding (the engineering stage leaning towards the functional encoding and the marketing towards the symbolic encoding, for example). '[T]echnologies are functionally encoded to facilitate (political) ends – by way of the form of deployment which they encourage. Further they are symbolically encoded to the same end – through the practices of design and marketing' Mackay and Gillespie note (1992, p. 709). The symbolic encoding of DTV via marketing and advertising is considered important for its shaping and is discussed in chapter 5.

In the following extract Mackay (1997, p. 269) eloquently illustrates the process, benefits and principles of such an approach discussed above, which my thesis also espouses.

> Technologies, like other texts are encoded – in a physical sense in their design, and symbolically in their styling and marketing – and are decoded – that is, read by their consumers. At both ends, symbolic 'work' is being done; and this is where cultural studies extends sociologists' 'social shaping of technology' approaches to technology. Our notion of the 'cultural circuit; forces us to consider symmetrically the realms of consumption and production, and to take account of the complex (not uni-linear or one-way) linkages between the two. And a cultural studies approach alerts us to the symbolic (as opposed to simply functional) significance of technologies. Finally, the encoding/decoding model…has the merit of allowing some capacity of determination to the technology.

To return and conclude the discussion of Silverstone and Haddon's (1996) design stage, is should be mentioned that the three dimensions of design are not independent, nor are they necessarily linked in a linear fashion. Constructing the user can be seen as being part of the creating the artefact and catching the consumer phases of design. Also, design is not something that is fixed and static; it develops and changes as the actors, the technology and the social conditions that determine it change and, crucially, as the product is later taken up, used and domesticated.

The design process and particularly the 'catching the consumer' phase evidently have some traits in common with the diffusion process in diffusion theory and, in particular, with the processes which communicate and publicize the new medium in society. In this thesis, I draw on this phase of the design, adopting its social shaping principles, but leaning also on diffusion theory for a macro perspective of the wider circulation of DTV in society, in order to reflect on and examine how, in a specific time and place, DTV's image was manufactured and sold to audiences. In this sense, in this thesis, 'design' refers more to how DTV was marketed. Since the 'design and domestication framework' lacks a sufficient empirical examination of the design and its three phases, I here rely on an analysis of advertising and early communication of Sky digital to talk about the production/market shaping of DTV and make inferences about the inscribed user.

One aspect that distinguishes the design from diffusion theory is that all its three phases suggest and emphasize that, at the point before purchase and use, a technology is

not empty of meaning. On the contrary, it is inscribed with a variety of messages, statements and values. It is not simply the product of a sudden flash of inspiration, neither is it 'given', as the determinism entailed in the diffusion paradigm would have us believe. In this sense, the design stage of the design and domestication paradigm, despite some similarities to diffusion studies, offers a critical, more insightful and improved account of the creation and circulation of novel goods. At the same time design offers the conceptual tools that allow an analysis of how technologies are inscribed with meaning at the point of production, marketing and retail.

Conceptualization

This aspect of the design framework in pinpointing the inscriptions and meanings a technology acquires before entering the household helps us conceive of the adoption process in a way that links diffusion of innovations theory to the design and domestication model. In particular, I argue that the adoption stage, as conceptualized in this thesis, is a dual process that signals the commencement of consumption and domestication process. Adoption is a process that involves both Rogers's innovation or purchase decision or 'adoption' process, *and* Silverstone's appropriation. Adoption, conceptualized as a complex process that involves various not always discrete stages that precede, but also include purchase (awareness and interest, desire, negotiations, research, brand selection etc.) of a new technology, conceptualized as a good that carries meanings and messages, is the process whereby consumers accept and embrace market definitions of the technology but also begin to ascribe to it their own definitions. It is a process of simultaneous decoding and encoding. The technology is shaped in particular ways, through production and in the market, before it is purchased, and through this process of wanting, negotiation and decision-making. This investment of cultural competencies, social relationships and economic resources in the new technology prior to its use, can have an impact on actual use and might direct domestication into certain specific patterns rather than others. In this sense, I would suggest that domestication starts in adoption.

In this thesis I discuss the process of DTV adoption by its early users, by examining their reasons for acquiring DTV, their sources of awareness and influence, negotiations with household members, and acquisition strategies. Because DTV was a newly launched technology, public discourse, media coverage and advertising played a major part in raising awareness and shaping consumers' perceptions. I thus also look at

whether first generation adopters of DTV endorsed the market rhetoric and whether the meanings subscribers' imposed on DTV at the point of purchase and in their discourses to justify their decisions, were similar to those proposed by the diffusion processes of design and advertising.

At the next level, what is equally if not more interesting is what happens to the new technology when it leaves the public space of the market and enters the private space of the household. The entry of every new technology to the household brings change. As Lie and Sorensen (1996) argue, when the 'catalyst of change', the new technology, is brought into our homes it destabilizes and unsettles our everyday lives. In order to re-establish the equilibrium we begin the domestication of the technology which, through its use, allows us gradually to stop perceiving it as 'strange' and incorporate it into our everyday routines or establish new routine around it.

Domestication

For Silverstone and Haddon (1996), the process of domestication of a new medium confirms or provides new, alternative or complementary definitions of what it means to users, to those proposed by its design and diffusion. This process is linked to design, and is theorized in a way that avoids technological determinism, in which there is ''mutual shaping' or mutual dependence between technology and social change, whereby technology influences the everyday life and everyday use transforms the technology' (Pierson et al., 2008, p. 109). The domestication concept was developed in 1992 and has been refined and revised into the form attached to the design and domestication model which attempts to integrate domestication theory with the social shaping of technology literature (Haddon, 2007, p. 27). In all its versions, it was intended to assess the role of media technologies (especially television) in people's everyday lives and to provide a framework within which to examine the uses, the experiences with and meanings of technologies to users (Haddon, 2006b).

Domestication originates from a number of traditions such as media and audience research in the 1980s[21] (and the intent to move beyond particular approaches),[22] anthropology, science and technology studies and within this socio-constructivist approaches, and also and crucially, consumption studies (Silverstone, 2006). Consumption studies emerged as a theoretical strand during the 1980s and looked at the reasons why and processes through which people chose to possess certain goods and artefacts, how they organise and used them and what they meant to them (see especially Bourdieu, 1984; Douglas and Isherwood, 1979; Miller, 1987; Baudrillard, 1988; McCracken, 1988; among others). What domestication theory did 'was to take these ideas and develop them into a framework for thinking about how we experience "media" technologies' (Haddon, 2007, p. 26) thus highlighting the role of media and ICTs and making them the epicentre of domestic consumption.[23]

---

[21] E.g. the work of Hobson (1980) on the meaning of television in housewives' lives, Morley (1986) on family viewing and its gendered element, Lull (1988) on family viewing, along with the gradual increase in household technologies challenging the dominant position of television signalled during that period, led to empirical research on people's experience with satellite television (Moores, 1996), the VCR (Gray, 1987), telephone and computers (Haddon, 1988) and other media (see: Haddon, 2007, pp. 25-26).

[22] Such as Screen theory with its emphasis on the text, and Reception studies with its emphasis on the text-reader relationship. These were seen as problematic in a number of ways, mainly for 'not accounting for the complexity of culture and the social' (cf. Silverstone, 1991, pp. 205-206 cited in Hartmann 2006, p. 83)

[23] For another account of the origins of the concept see: Hartmann (2006), Silverstone (2006), and Haddon (2006b; 2007).

A distinctive feature of the domestication concept and theory is that, in order to look for uses and for what media technologies mean to people, it contextualizes media experience. As Pierson et al. (2008, p. 109) explain, domestication 'starts from the context in which ICTs are experienced. It refers to the integration of technology in the daily patterns, structures and values of users'. The household/home provides such a context[24] and serves as a dual system where both social and economic relations take place. This domestic context, the household, is conceptualized as a 'moral economy' (Thompson, 1971), the place which, at the same time as being the site where basic relations of trust and security are at work, is also 'an economic entity, which plays a role in producing and reproducing goods and services…thus operating within and constituting a transactional system' (Berker et al., 2006, p. 4).

Domestication theory focuses attention on the fact that media technologies that enter the moral space of the household are 'doubly articulated' (Silverstone et al., 1992). They are conceptualized and analysed as objects or technologies or hardware, while at the same time they are bearers of texts, content or software. They are simultaneously material artefacts and carriers of symbolic meaning. They bring the public world into our private space and mediate between the two. Livingstone summarizes the concept and Silverstone's suggestion that

> we should not, in focusing on the processes of daily consumption miss the vital point that some of these objects…are distinctively different…[they] are both part of the world of sofas and lamps, objects of consumption designed for the domestic market, located in the time-space relations of the present, carrying their markers of gender and class, and they are also fundamentally different…they are portals to other worlds that open up the realms of the imaginary, connecting the domestic living room…to the rest of the globe. (Livingstone, 2007, p. 17)

Livingstone continues that through this concept 'Silverstone (1994) contrasts the analysis of the media qua material objects located in particular spatio-temporal settings with…media qua texts or symbolic messages located within the flows of particular socio-cultural discourses, precisely in order to demand that we integrate the two'(ibid.). But this integration arguably is difficult to manage intellectually and to address empirically (Livingstone, 2003, 2007), as much of the work on domestication discussed

---

[24] The theory has been criticized for originally focusing solely on the domestic context and also for whether this should be conceptualized as the household or home or family context (Bakardjieva, 2005). Lie and Sorensen (1996) offer an alternative by looking at the domestication of the car in Norwegian society and argue that the theory can also look outside the home for context. The recent increase in mobile technologies allows the domestication framework to extend beyond the household, although the household remains at the centre of media consumption.

in the following section confirms. Silverstone in his later work also pointed to the difficulties and unresolved issues relating to this concept (Silverstone, 2006, pp. 239-240). But the concept was of its time; it was a response/reaction to the textual determination of media studies at that time and to technological determination of diffusion theories, which urged research to look for a more balanced and composed, yet complex, accounts of the entry of media technologies into our lives. It is a concept that preserves the unique status of the object of media studies in relation to other technologies or artefacts. Since then, it has been the motivation for research to sustain it and analyse media content and media use in context.

It should be noted that this concept makes automatic assumptions and statements about the users of media technologies. In other words, since media technologies are doubly articulated, this applies also to their consumers. They have the dual status of being consumers or users of technological goods and interpreters of content. They are consumers and, simultaneously, can be conceptualized as viewers, audiences or readers of content (Livingstone, 2007, p. 18). The double articulation of the consumer has implications for research and for the (future) conceptualization of users of new media technologies. It provides a useful tool for thinking and enquiring about the position and status of consumers of media technologies in a fast changing new media era.

Stages of Domestication

Domestication of a new medium comprises four stages: appropriation, objectification, incorporation, and conversion (Silverstone et al., 1992). These were later slightly revised to what Silverstone called a 'more accurate framing' (2006, p. 233) of commodification, objectification and incorporation (the latter two being stages of appropriation) and conversion (Silverstone and Haddon, 1996; Silverstone, 2006). These processes influence the numerous ways consumers imagine, conceive, use and define the new medium.

Silverstone et al. (1992) explain that a new medium becomes appropriated when it is sold and then owned and possessed by an individual or household. It is the point when the product crosses the boundary between public and private and starts its *new 'life'* as a domestic object. The later term of commodification provides the bridge that allows the technology to enter the household, and links design with domestication (Silverstone and Haddon, 1996); it is the process that refers to the moment/time when

novelties or technologies appear in the market –arguably not from nowhere or empty of meanings. *Commodification* 'refers to that component of the process of domestication, which in design, market research, the knowledge of pre-existing consumer behaviour and the formation of public policy, prepares the ground for the initial appropriation of a new technology' (Silverstone, 2006, pp. 233-234). In this sense it can be seen as the result of the design process and of the forces at work in all three of its phases. *Objectification* refers to display practices related to the new medium which provide 'an objectification of the values, the aesthetic and...cognitive universe, of those who feel comfortable or identify with them' (Silverstone et al., 1992, pp. 22-23). *Incorporation* is related to practices that put the medium into active use, while *conversion* again suggests a link with the public space because it is utilized when consumers use the 'currency' of their experience with the medium, to communicate with the outside world.

Similar to the three stages of design, these stages of domestication need not be seen as linear or distinct. As Moores (1993, p. 100) claims, 'in situated empirical instances, these four categories might well collapse into each other'. Overall, all processes describe how the adoption and

> entry of ICTs into the home is managed, how these…are physically (and symbolically) located within the home, how they are fitted into our routines and hence time structures and how we display them to others, and by so doing give out messages about ourselves. (Haddon, 2007, p. 26)

In short, they reflect the ownership, use and display practices of a new communication technology that take place in the household.

Empirical review

Over the years, domestication, both as a concept and a theory, has been enriched theoretically by the contributions of empirical studies of domestic media consumption, domestication studies. These studies, as noted by Haddon (ibid, p. 27) 'emphasized the social relationships surrounding ICTs, often looking at interactions between household members, their negotiation of the rules about ICT use, as well as tensions or even conflicts over that use'. Starting in the late 1980s, Silverstone, Morley, Dahlberg, Hirsch and Livingstone, produced the first report on the concept of domestication looking at the consumption of ICTs in the household (Silverstone et al., 1989). This led to the first wave of domestication studies, which focused on the domestic consumption

of ICTs (Hirsch, 1992) and the role of gender relations in media technology consumption (Livingstone, 1992). In the early 1990s, Silverstone and Haddon, attempted to apply the domestication concept through case studies of empirical research on different social groups: tele-working households (Haddon and Silverstone, 1994), lone parents (Haddon and Silverstone, 1995) and the young elderly (Haddon and Silverstone, 1996). All this work, despite difficulties with empirical applications of the double articulation notion (Hartmann, 2006, pp. 89-91), outlined the array of patterns of media adoption by these social groups, and the variable dynamics of the incorporation of technologies in everyday lives which were being challenged by their condition as home workers, or lone parents, or transition to retirement.

In time, the concept gained momentum and international acknowledgement. More research was conducted with works such that of Bakardjieva and Smith (2001) and Lally (2002) on the domestic embeddedness and use of internet and home computer respectively. Lie and Sorensen (1996) expanded the context of domestication studies beyond the household and stressed the theoretical links between domestication and social studies of science and technology - at roughly the same time that the design and domestication framework was proposed - investigating the use and domestication of the motorcar and later of mobile phones in Norwegian society (Lie and Sorensen 1996; Sorensen, 2006).

A new set of domestication research continued to evaluate, revise and enrich the concept with studies such as those conducted by the EMTEL network directed by Silverstone, reported in Berker, Hartmann, Punie and Ward (2006). Hartmann offered viewpoints that were significant for how the concept can survive in the changing media environment and contributed her alternative of the 'triple articulation' notion to include the 'context' alongside Silverstone's object and content dimensions. Pierson (2006) also added to the concept, both theoretically and methodologically, by looking into the appropriation and use of ICTs in small businesses and what constitutes 'professional domestication', thus expanding the 'context' to the area of work, and combining qualitative with quantitative methodologies in his research.

Critique and discussion

Domestication studies offer valuable insights into the complexities of household consumption and the use of media technologies and their integration in domestic patterns and routines. Over the years, work on domestication has provided constructive critique and pointed to ways forward for the concept (Haddon, 2006b; 2007) by acknowledging the fast changing technological environment, the changing mobilities and disappearing boundaries of our days (Silverstone, 2006). More recently, the context has been expanded to go beyond the home or household; the theory has enriched and updated its methodologies; and also the focus has spread beyond the western world.

However, the focus on the double quality of ICTs is not very well balanced; either empirically or theoretically. The focus seems to be ICTs more as objects (technology) than as texts (programmes). In fact, it could be said that domestication tradition as a whole, in its effort to avoid the textual determination of screen theory, and widen the focus of media studies to include media use in context, has moved too far away from the text (programmes/content.).[25] By contextualizing media use, it put too much emphasis on context, domestic arrangements, and the living room. It focused mostly on what takes place around the media rather than on media screens and, by implication, theorised media technology adopters mostly as consumers and not as audiences/viewers/readers. This disproportionate attention is to a certain extent unavoidable given the complexity of the task, and the additional practical difficulty of applying the double articulation notion. However, perhaps the cost of this imbalance at times is outweighed by its benefits. As Livingstone (2007, p. 19) explains, 'the consumption of content takes place in meaningful ways in particular contexts of space and time, so it is through the interplay of context and content that meaning is created or that media consumption is made meaningful'. Despite these observations, my study is not a typical domestication project; it is more a diffusion type study that draws on domestication insights. I focus more on DTV as a domestic technology and less on the appropriation of content or of specific programmes, but I do look at the uses DTV as a multi-medium is put to in the household by consumers. This way domestic context

---

[25] Of course, it should be noted that apart from the text as content or programme, which domestication studies do not look at in depth, there is also the textual nature of technology, already discussed, which, both domestication studies and my research address by looking at the symbolism of technologies and also the meaning technologies -or DTV in this case- acquire for users in the household, how different household members negotiate such meaning, how does it change everyday practices at home etc.

considerations are also taken into account since these, as Livingstone's aforementioned quote suggests, unavoidably shape use and consumption. The spatial, temporal and social context of TV viewing in particular, discussed in chapters 6 and 7, proved important in shaping DTV use or non-use. [26]

As suggested domestication theory can be criticised for focusing persistently on what takes place inside the household and ending up as another consumption theory that is not highlighting the distinctive role and status of novelties and media innovations. Yet, I contend, its later enrichment with the 'design' facet of the innovation cycle, to form the design and domestication framework that my research is drawing from, addresses the process more holistically and allows us to look outside the household to the market and the place the innovation came from. As opposed to diffusion theory that takes the reverse, mainstream path of looking at where the innovation is going and the innovation's route from the production place towards the market towards the household, the design and domestication paradigm at the same time as going past the front door, adopts a social shaping approach to technology. This way it addresses the weakness of diffusion theory which is considered linear and limited to questions of access, while at the same time it expands the empirical domain of theories of social construction, which have mostly focused on what happens at the engineering or creation or production stage of innovations,[27] to the domain of use and consumption. In so doing, the design and domestication paradigm also offers an overlap between consumption theory and the sociology of technology and in particular the social shaping tradition (Blyth, 2001).

Conceptualization

In my thesis, I propose that the design and domestication process presents continuity within the life of a medium, but also across media. I argue that design and domestication is an on-going circular process, which runs through the life cycle of a

---

[26] For example, and as the interviews suggested, perceptions of TV viewing as a social and not solitary activity played a role in the use of interactive services which was considered a selfish activity; in this context also, the public setting of TV viewing raised privacy considerations in using DTV for personal purposes such as emailing etc.

[27] As Lie and Sorensen (1996) attest, amongst studies of social shaping there has been little concern for how technology becomes part of everyday life. On top of that, the few social shaping studies that actually look into the 'consumer' and how the consumption of a new technology shapes the artefact, do not examine how the consumer came to possess the item under study. They do not look into how the process of adoption takes place and ignore the process by which the new technology is diffused from its source of creation to the intended users. This is a gap that my approach attempts to fill.

medium and cumulates the experience of consumption and marketing through each of its life phases. This view is compatible with the approach in Pierson et al. (2008) who, like de Marez (2006), interpret 'the design of technological innovations as a continuous and interdependent process of influence between technology push and user pull initiatives' (De Marez, 2006, p. 259, cited in Pierson et al., 2008, p. 107). For a longer time span of technology use, Marvin's (1988) account of the history of the telephone is indicative of the complex interaction between design and perceived uses, and the actual uses and culture the telephone acquired through its life trajectory. Similarly, Forty's (1986) report on the trajectory of the radio suggests that design draws constantly on domestication and on the meanings consumers make of the technology, to make further improvements.

I argue also that design and domestication are not cut off from any past or context and do not concern only the relevant new technology and its launch. The design, diffusion and domestication of a new technology builds upon and uses feedback from previous design and domestication processes of previous technologies and, in this case, old new media. In this sense the relationship between old and new media implies *continuity* not only in terms of technological invention and innovation, but in terms also of actual use and consumption.

In other words, not only do innovation and technical knowledge develop in 'path dependent' ways (Rosenberg, 1994, pp. 9-10), but consumption patterns and the gratification users expect from media usage are based largely on past experience (Palmgreen and Rayburn, 1985); or as Rasmussen (1999, p. 161) puts it 'old new media practice structures new media practice'. Through this framework I seek to uncover how consumers perceived of the novelty of DTV, whether they considered it a new or an improved medium and how previous experience with television and other media, such as the internet, influences the way DTV is approached and used.

Domestication and Diffusion: Two sides of the same coin?

Having discussed the theories of diffusion of innovations and design and domestication of technologies and highlighted their strengths and their weaknesses I now propose that, despite their differences, these approaches are not as incompatible as often thought (Boczkowski, 2004, p. 255), but can be reconciled in a positive way. This thesis attempts this by viewing these perspectives of technology adoption as

complementary rather than opposed to each other. This is a new way of thinking about these two traditions within media studies, and one that is beginning to gather momentum.

Pierson et al. (2008, p. 107) in their research, also assert that '[w]ith diffusionism as the more quantitative research tradition with the focus on acceptance and adoption-decision, and domestication as the more qualitative research tradition with the focus on the use and appropriation of technologies, both traditions could be complementary' (see also Punie, 2000). In their research on user assessment of future wireless applications in a living lab environment in the i-city of Belgium, both domestication and diffusionist approaches were followed and based on different sets of methods.[28] They yielded quite similar results relating mainly to peoples' high regard for time and preference for the time saving features of the technologies. Overall, concerning the coexistence of the domestication and diffusion approaches in their research, the authors concluded that 'combining both traditions in one project enabled a more complete picture of the usage patterns of mobile city applications to be put together' (Pierson et al., 2008, p. 118).

In a related but more general fashion, Boczkowski (2004) assesses the relation between the diffusion and social shaping approaches to technology, with a focus on social development and production. He reviews the history of the introduction of videotext newspapers in the US in the 1970s, and concludes that their *shaping* and *diffusion* 'were so intimately tied that it is impossible to make sense of one without the other' (Boczkowski, 2004, p. 256). His analysis of the introduction and adoption of Viewtron emphasizes that a mutual approach allows for the study of the interpenetration of technological construction and societal diffusion and brings out 'the ongoing character of this process and the importance of the historical context in which it unfolds' (Boczkowski, 2004, p. 263).

Arguably, domestication theory developed as a response to what was then considered the deterministic and linear model of diffusion of innovations, which until the mid-1980s had dominated the innovation research agenda, and as an attempt to move from administrative to more critical approaches to technology innovation and adoption. As Berker et al. (2006, p. 1) put it '[i]t represented a shift away from models which assumed the adoption of new innovations to be rational, linear, monocausal and

---

[28] Ethnographic methods, interviews and diaries for the domestication part of the research and survey research and focus groups for the diffusionist part.

technologically determined…Rather it…considered the complexity of everyday life and technology's place within its dynamics, ritual, rules, routines and pattern'. This step away from deterministic views of technology in domestication studies and their adoption of a social shaping approach to technology is espoused in this thesis. The thesis contends that adoption is not a mechanical, but rather a complex process. It thus considers domestication theory as a means for overcoming the limitations of diffusion theory and its restriction on what happens outside the household. In a way, domestication theory can be seen as developing diffusion theory further. However, diffusion theory's concern with the wider societal spread and its provision of a framework to estimate and assess the societal acceptance of innovations is also significant, especially for new media technologies.

Both perspectives approach innovation from different angles, but in somewhat parallel ways. Diffusion theory adopts a *market perspective* and offers a general framework for how technology diffusion takes place in the *public space* and how *access* to and *adoption* of technologies is achieved by individuals in a social system. Domestication starts with the individual and the appropriation of technologies in the *private space* of the *household* by also looking at the *ownership* and commodification *process* of new technologies through/within a *domestic framework/perspective*. Domestication, can resolve the shortcomings of diffusion by approaching appropriation of media technologies in qualitative terms, in the household; yet diffusion can complement or expand domestication by approaching access/adoption in quantifiable terms at a macro level, offering generalizations about technology diffusion in society, thus looking at the bigger picture. In this sense, and as Pierson et al. (2008, p. 118) also conclude,[29] the domestication framework and diffusionist research 'can indeed be two… sides of the same coin'.[30]

What I attempt to do in this thesis is to work with both theories because I look at DTV at a time when it was *new* to *the household and to society* and the *new media market*. Thus, the two theories combine to provide complementary accounts of its

---

[29] Pierson et al., (2008) paraphrase Boczkowski's note that '…the shaping and diffusion of media artefacts are so intimately tied that they should be seen as two sides of the same innovation coin' (Boczkowski, 2004, p. 255). The metaphor originated with Silverstone and Haddon (1996, p. 46) who proposed that 'Design and domestication are the two sides of the same coin. Domestication is anticipated in design and design is completed in domestication'.

[30] In that the results of both their diffusionist and domestication research on the user-oriented assessment of future mobile applications produced very similar findings, and both fed back into the further design of wireless applications 'based on what potential users say, do and experience in everyday life situations in the city…' (Pierson et al., 2008, p. 107).

diffusion in society and its adoption, appropriation and use in households. This is principally a diffusion type study drawing on domestication in order to advance diffusion theory. It can be read as a 'hybrid' study that extends diffusion into the household; as charting and mapping the markets whilst also capturing the lives of users, and their concerns and practices.

As already mentioned, domestication theory, in investigating what technologies mean to people in their everyday lives, invites and has been linked to qualitative approaches and methodologies, and has been limited to what happens inside the home. Its focus on the home is useful for this thesis because it enters the territory not occupied by diffusion of innovations. Concerning its focus on qualitative methods, this has been challenged and expanded to include quantitative practices (Punie, 1997; Haddon, 1998; Pierson, 2006; Pierson et al., 2008), somewhat compatible with the approach in my research. Silverstone noted that quantitative and qualitative methodologies were after all not incompatible in domestication studies, but could be complementary (Haddon, 2007, p. 29). Also, and given that this is a diffusion type study drawing on domestication, the coupling of qualitative with quantitative methodologies it follows is rather important.[31]

Digital Television in the Circuit of Culture

This thesis examines DTV's introduction in the UK; its diffusion process and audiences' responses to the innovation. The introduction of a new technology is a complex cultural process. Examining a new medium and its life as a social good *and* a domestic object is a complex endeavour. The circuit of culture model (Johnson, 1986/87; du Gay et al., 1997) provides a structure for this effort and contextualizes the many micro and macro processes that are simultaneously at play. The cultural circuit is compatible with the social shaping approach in the design and domestication framework and puts domestication within a bigger context. At the same time, it can accommodate a macro-perspective of the wider circulation of a new technology in society. It is thus employed here in a way that offers an overarching framework that embraces both the theories and practices of social and individual adoption; it caters for *both* the *spread and* the *appropriation* of DTV, which at the same time allows me to *delineate this complex*

---

[31] As Johnson et al. (2004, p. 42) put it 'a multiplicity of methods is necessary because no one method is intrinsically superior to the rest and each provides a more or less appropriate way of exploring some different aspect of cultural process'.

process of the introduction of an innovation, focusing on particular moments of it, to achieve the overall aim of this thesis my project: to offer an account of a time, a narrative of the diffusion and adoption of a new technology by its early audience.

Emergence and development of the concept

The idea of a circuit of culture is based on Marx's concept of the 'circuit of capital'. Marx's model positions two moments: (industrialized) production and (commodity) circulation. Dyer-Witheford (1999, p. 91) analyses how Marx's model works, explaining that

> in production, labor power and means of production are combined to create commodities. In circulation, commodities are bought and sold; capital must both sell the goods it has produced, realizing the surplus value extracted in production, and purchase the labor power and means of production necessary to restart the process over again.

Scholars in the cultural studies tradition have tried to revise this model and highlight the relationship between economy and culture. Thus, the circuit of culture emerges as an attempt

> to move away from the determinism and reductionism implicit in the Marxist "base and superstructure" model while retaining an explanatory link between material and cultural production and consumption…[it] grew out of the description of a social formation…as constituted by complex structures or regularities that are articulated or linked together. (Barker, 2004, p. 22)

Richard Johnson (1986/87), building on Hall's (1980) encoding/decoding model of production, circulation, use and reproduction of meaning, developed a model that depicted 'moments' in the cultural process: a circuit of production, circulation and consumption (Acosta-Alzuru et al., 2002, p. 142). This is composed of the moments of *lived culture, production, texts,* and *readings* and, while elevating the lived experience that previously was absent in 'economistic' analyses of social structure, provides room also for structural influences to be accounted for. Buckingham (2008, p. 222) takes us round this circuit explaining that the moment of production

> is that in which cultural objects or texts are brought into being; these texts take specific forms that can be analysed in their own right; the meanings of these texts are then actualised in the moment of reading; and readings subsequently

feed into…lived cultures, which then in turn impact back on the process of production.

This model was revised by du Gay, Hall, Mackay, Negus and Janes (1997) to form what is now commonly known at the 'circuit of culture' (appendix 2). The circuit of culture highlights the relationship between culture and meaning and sees meaning as constructed in cultural practices and not simply as given (Fraley, 2003, p. 6). In this sense, anything that is meaningful can be analysed through this model. As Johnson et al. (2004, p. 37) indicate'[t]he model fits face-to-face exchanges or forms such as television programmes, or useful and meaningful objects such as a personal hi-fi'. Thus, commodities and, in this case, media technologies, can be analysed in terms of the meaning they acquire and that is emerging from and embedded in the various moments of the cultural process; something I attempt in this thesis.

The circuit of culture depicts five moments in the cultural process: those of *representation*, *identity*, *production*, *consumption* and *regulation* (du Gay et al., 1997, p. 3). Meaning emerges out of each of these moments and out of the circuit as a whole. Barker (2004, p. 22) specifies that meaning is produced at each moment, so that 'the production of significance at each moment of the circuit is articulated to the next moment without determining what meanings will be taken up or produced at that level'. *Representation* is the moment when the meaning of a cultural good is produced through symbolism and language. *Identities* are constructed around an artefact and through its use, and are attached to both artefact and users. Thus, a cultural product acts as an identification mark for a particular person or group; identity creates meaning and meanings create identity. Identities and meanings are injected into products during the *production* process, but also during the *consumption* process. Goods 'are produced in ways that make them meaningful' (Acosta-Alzuru et al., 2002, p. 143), but are also meaningfully incorporated into our everyday life through consumption. Lastly, meaning is made out of attempts to *regulate* the production or consumption and use of the artefact, but also out of 'the impact a cultural product has upon the regulation of cultural life' (ibid., p. 144).

An analysis of culture and of the meaning of an artefact can start at any point in the circuit. This 'is based on the articulation of distinct processes whose interaction can and does lead to variable and contingent outcomes…By the term articulation we are referring to the process of connecting disparate elements together to form a temporary unit' (du Gay et al., 1997, p. 3). This enables many different possible circuits or

analyses of circuits because there are many different possible forms of representation, identification, consumption and regulation of a cultural product, and many different linkages between them. Also, each moment reappears and might become part of the following one. Identity becomes part of production, representations part of identity construction, and so on. The authors note that they 'have separated these parts of the circuit into distinct sections but in the real world they continually overlap and intertwine in complex and contingent ways' (ibid., p. 4). As an example and a case study they provide an analysis of the Sony Walkman, which means different things to different people, is used in different contexts for different purposes, and with differing effects (see also Chambers 1990). For du Gay et al. (1997) the Sony Walkman was a discrete technology and at the same time 'a site of intensive interaction where forms and practices associated with particular spheres folded into each other' (Taylor et al., 2002, p. 609).

Du Gay et al. (1997) uphold Johnson's (1986/87) framing of culture as a complex process composed of sets of moments, which are 'distinct, but not discrete', and agree that the study of a single moment in this process provides a partial understanding of how meanings related to specific cultural products are produced (Acosta-Alzuru et al., 2002, p. 142). Even though these moments of cultural practice are easily isolated for analysis and study, an individual analysis that Johnson argues they deserve, there is a risk in seeing them in isolation as none of them is of more significance than the others. Additionally, and as Buckingham (2008, p. 224) attests, '[a]nalytically, it may be necessary to isolate moments for analysis but these moments are always inevitably part of a broader social and cultural practice', something that the analyst should always keep in mind.

Clearly, the circuit of culture is an ambitious framework or structure through which meaning creation and exchange can be seen to take place, which does not imply that one moment determines the other, or that production defines consumption, or that production might be more important in terms of power and influence. On the contrary, as Mackay (1997, p. 1) notes, 'work in cultural studies has been at pains to draw out the interrelationships between the various moments, the processes of influence or feedback whereby the various components or stages of the circuit of culture are inextricably linked'. The circuit of culture schema looks into the processes of meaning production of an artefact in a holistic way, perhaps causing methodological difficulties. At the same time, however, it is flexible which allows the researcher also to focus on only one or

just a few moments or nodes in the circuit. It is this *flexibility* and malleability of the model that allows us to start at any moment and look at the specificities of each moment whilst not losing sight of its interconnections with the others, which comprises its strength. However, we should keep in mind also that these 'moments' are only heuristic devices and not organizational aspects of an otherwise non-separable 'whole way of life' (Barker, 2004, p. 23).

Cultural circuit revisions and empirical application

Over time, the circuit of culture has been employed in cultural studies and in media studies in various ways, by scholars from different backgrounds, to help analyse media or cultural phenomena or practices. Scholars have focused on a few moments in the circuit and their interrelationship, and also on the whole circuit and all its moments; some have used the model mostly as a conceptual schema for their analyses while others have carried out original empirical research; yet others have revised and challenged it, and proposed alternative models based on the circuit of culture.

In cultural studies, Fraley (2003), in his work on music fans, focuses on the relationship between the moments of *identity* and *consumption*. He shows that, for these fans, their consumption of music and the community that has developed around it, allows them 'to create and sustain their identity' (ibid, p. 20). Acosta-Alzuru and Kreshel (2002) look at the *representation*, *consumption* and *identity* moments. They look at how girls in the US create identity through their consumption of American Girl dolls.[32] They show that the American girl identity 'is a co-production of…texts that represent that identity and the consumers who incorporate it in their everyday lives' (ibid., p. 158). Despite seeming conventional, this conclusion is in agreement with the theoretical principles of the circuit of culture, which emphasize that none of its moments is privileged. In this sense, consumption is neither fully determined nor independent from production or representation, but these latter two define the range in which the former takes place (de Certeau, 1984).

The circuit of culture has been also taken up by media studies in various ways. David Buckingham (2008), in his study of the construction of the child audience, revises the circuit of culture and, whilst in many respects adheres to its principles,

---

[32] American Girl is the brand name of popular dolls 'created to bring history alive and provide girls with role models' (Acosta-Alzuru and Kreshel, 2002, p. 169). These are fictional characters representing specific periods in US history i.e. Pioneer, Victorian, WW2, Colonial.

proposes an alternative model of a 'simplified triangle' composed of the moments of *production*, *text* and *audience*. He applies this model in all its moments empirically. By means of interviews with broadcasters, regulators and actors in the production domain, through analysis of television schedules (also historically) and children's programmes and interviews with children he provides us with a comprehensive account of children's relationship with media. This relationship generates definitions of childhood which, crucially, complement those generated at the level of *institutions* and *texts*. His discussion concludes that '[t]he child audience....is thus constructed though an ongoing process of social negotiation' (Buckingham, 2008, p. 233).

What is interesting about Buckingham's approach is his use of the circuit of culture and his decision to leave out the moment of everyday life or 'lived culture'. In an attempt to distance himself from anthropological approaches and retain and highlight the focus on *media* research, he explains that this decision 'merely reflects a desire to delimit the boundaries of media research, as distinct from a more broad ranging and inclusive anthropology of everyday life (or 'culture')' (Buckingham, 2008, p. 224). Buckingham's approach is not necessarily short for trying to narrow the focus and pinpoint the particular moment when audiences come to be constituted as such. Whilst acknowledging that being an audience member is, always, part of a broader social experience or context, he contends that 'analysing the specific place of media in that context simply means that we have to draw a line at some point' (ibid., p. 223). Buckingham's use of the circuit, if anything, reflects the model's *flexibility* in terms of which angle one can take, from which moment the analysis can begin, or on which moment the emphasis will be. It also draws our attention to the model's plasticity, in terms of allowing the researcher to zoom in and/or out on particular moments; something that this thesis also adopts. Finally it emphasizes its potential to accommodate different disciplinary perspectives and theoretical presumptions.

The circuit of culture has also been discussed in relation to technological developments, especially the rise of the internet, within new media studies. Taylor et al. (2002) in their study of the music file exchange software, Napster, suggest that a medium such as the internet has an effect on the links and relationships between the traditional moments in the circuit. The Sony Walkman study, though rich and informative, they contend is a study of the electronic era and culture. Given that we are now in the 'cyber' culture of interactivity, convergence and hyper-textual communication, the circuit of culture needs further revision. What Taylor et al., (2002)

do in their study is to review the invention and development of Napster historically, taking it through the various moments of the circuit of culture. They assess its route through the moments of Representation, Identity, Production, Consumption and Regulation by comparing and contrasting them with the corresponding moments in the Sony Walkman (du Gay et al., 1997). Taylor et al. (2002, p. 610) explain that '[t]his consistency allows us to clarify similarities and differences between the cases that yield implications for the model'.

Their assessment and comparative appraisal shows that *representation* and strategies of meaning construction and *identity* are relatively similar in both cases (Napster and Sony Walkman) of technological development and circulation. *Production* presents significant differences, especially in distribution (which is decentralized in the Napster case) and in the set up or business model of the 'company' it proposes; an internet set-up company where the production, innovation, company and mode of delivery are intertwined to such a degree that makes distinctions difficult. The *consumption* stage also differs significantly between the two products, and in the case of Napster presents several extraordinary aspects. Users of Napster, compared to Walkman users, are simultaneously producers and consumers; while 'ripping' music from a CD they make it available online, and exchange it for other pieces of music. Also Napster users are using the software for free and, in this sense, are not, like Sony Walkman users, clients or customers of the company. Thus, it is in production and also in this moment of consumption, the authors conclude, that the cultural circuit model needs refinement. It needs to find ways 'to accommodate finer distinctions in modes of consumption…' (Taylor et al., 2002, p. 625), which, they maintain, are mainly brought to the surface due to the architecture and openness of a new medium, such as the internet, which needs further study.

Finally, Gerard Goggin (2006) in his book *Cell Phone Culture* offers what I consider the most comprehensive account of a cultural circuit. He employs the circuit in a dual manner, similar to the one adopted in my thesis. Like du Gay et al. (1997) and the Sony Walkman study, Goggin (2006, p. 2) contends that 'cultural description and analysis is….increasingly crucial to the production of sociological knowledge' and, based on the theoretical underpinnings of the framework, narrates the history of the cell phone and recounts its biography as manifest in production and development, representation and identity, and in consumption. In doing this, Goggin debates the place

of mobile phones in contemporary cultures, outlines their uses, what they mean to users, how they change and what they signify.

Goggin (2006) structures his analysis accordingly and bases it on the schema of the circuit. He discusses the early history of the production of the cell phone in the 1980s, and its evolution from an apparatus for business people to an appliance that almost everybody now possesses. Related to this moment, Goggin provides an overview of how the needs and desires of possible *users* feed into the design of the phone. He looks at the role of design and advertising in creating a mobile culture, through case studies of Nokia and Vodafone, and emphasizes the increasingly significant, and unexpected from design role of text messaging in creating the cell phone culture and its identity through consumption. He discusses how the cell phone was constructed in regulation through moral panics about health, literacy and grammar, and looks at new technological developments like camera phones, internet or TV-phones that lead to new sites of consumption, production and effectively new cultural circuits.

Goggin's approach to the circuit of culture makes explicit that in studying the biography of media technologies we need to understand not only the relationship between society and culture, but also the role technology plays in this affair. As I do, he suggests that social studies of technology can complement and extend its approach by discussing the meaning of technological artefacts. Most of all however, what I draw from Goggin is his reliance on what could be seen as a theoretical flexibility of the cultural circuit and its ability to connect different approaches.[33] He notes that 'it is worthwhile retaining the sense of multiple, connected perspectives in the 'circuit of culture' approach, as it reminds us of the inescapable articulations among spheres that jointly bring a cultural artefact to life' (2006, p. 14).

Conceptualization

In this thesis the circuit of culture is taken up to structure my attempt to narrate the story of DTV, its launch and introduction in the UK, and its take-up and use by FGDTV adopters. I argue that in relation to technological or media artefacts what the circuit of culture does effectively is to map their production, circulation and

---

[33] In relation to his study in particular, he explains that the circuit of culture 'needs to be opened up, and combined with some important other approaches to understand cell phone culture – namely, social studies of technologies, internet and new media studies, and non-Anglophone traditions of cultural and media studies' (Goggin, 2006, pp. 14-15).

consumption. In this sense, this framework is at the core of the objectives of this thesis and contributes to the cartography of key moments in the life of the new medium.

My thesis places the introduction of DTV in the UK *in* the circuit of culture and attempts to show how meaning around it, about it and from it was created through most its moments, thus framing its early history in a somewhat holistic way. As du Gay et al. (1997, p. 3) refer to in discussing the moments of the circuit '[t]aken together they complete a sort of circuit…through which any analysis of a cultural text or artefact must pass if it is to be adequately studied'. Arguably, and concerning the limitations of the circuit of culture as a model of empirical exploration, it could be said that its weaknesses are also its strengths. To focus on all its moments you lose depth, whilst to focus on only one you lose the whole picture. In my analysis, although I focus mainly on the moment of consumption, I also stress what happens in the representation and identity moments of the circuit with an emphasis on the marketing and advertising of Sky digital and the meaning derived from and encoded in the product during the production moment. Lastly, in analysing the early years of DTV and the practices of FGDTV audiences and its historical elements, my study touches on subsequent regulation and policy issues.

Although I move away from post-Marxist social theory in which the model is rooted, I retain key features of the model and its perception of culture, highlighting the evident links to social shaping and domestication approaches to technology and making these more explicit, in order to provide a wider framework and context for my conceptualization of domestication. As Green and Haddon (2009, p. 3) suggest '[t]his wide-ranging perspective…provides a backdrop for more specific frameworks that focus on different aspects of these processes' and cultural circuit moments. At the same time, the cultural circuit framework coupled with domestication, allows me to move from the much criticized linear approaches to communication and innovation, towards more cyclical ones.

Crucially, and similar to Goggin (2006), I conceptualize the circuit as offering a space where multiple disciplinary perspectives can connect to provide us with meaning, in the same way as cultural moments work together to give meaning and 'life' to things. In this way, my diffusion framework is incorporated in this wider model. The circuit is helpful for the approach in this thesis because its flexibility allows me to take different angles and zoom in and out to examine DTV's life, the life of a new medium, as both a social good and a domestic object; to look at its biography both *in the market and in the*

household. Like du Gay (1997), Buckingham (2008), Taylor et al. (2002), and Goggin (2006), I utilize the circuit of culture as a method or structure that allows me to discuss the early meaning of DTV in our culture and to investigate what people do with it and what it means to them. And as Goggin (2006) suggests, I open up the circuit of culture to multiple and connected perspectives of media studies, consumption and innovations diffusion theory to round off the discussion and offer a narrative of the early history of a new medium; an account of a time.

Conclusion and Research Questions

My approach and enquiry into the diffusion and adoption of DTV in the UK is set within the broad framework presented above. It should be clear how this theoretical discussion feeds into my approach to the examination of early DTV and its audience, and how the key concepts of diffusion, adoption, design, appropriation, domestication and cultural circuit are conceptualized. I argue that in order to grasp the meaning of DTV as a new or 'novel' (Campbell, 1992) medium we need to study both its entry in society or the market *and* its entry in the household; that is, to study it as a novel social good and as a new domestic object, and highlight both the social and personal aspect of DTV's early biography. Overall, my aim in this research is to capture the first years in the life of DTV from the moment of its launch in the market to its adoption and domestication by the FGDTV audience.

This is a clearly bounded piece of socio-historical research; an account of a time; 'the life of DTV, 1998 – 2002: from DTV and Sky digital launch to launch of Freeview and early plans of analogue switch-off'. The main focus is on the fast penetration, spread and use of the new medium by its FGDTV adopters. Thus, my main research objective is to portray the first years of DTV's diffusion facilitation and adoption process and also to look into how DTV is consumed and used. Leaning on the circuit of culture structure to guide my investigation, I also look into the representation and production of the image and meaning of DTV through the processes of design and marketing. Thus the moments of representation and mainly consumption are represented in my work.

DTV was launched in 1998 and after 12 years it has become the dominant mode of television technology with a penetration of 92%.[34] As the transition to digital broadcasting is taking place and the vision of a fully digital Britain is taking real shape this thesis looks at how it all started. In examining the diffusion and adoption of DTV by the FGDTV audience in the UK, it starts from the very beginning: its launch and the subscribers who took it up first. In so doing it reflects one crucial part of this process, its beginning, and provides the foundation for diffusion studies of DTV. Its significance is thus *historical* because it provides an account of the spread and uses of a now mass market medium, when it was new. The account of DTV in this thesis is interesting also in light of the policy measures and planning for implementing the switch-off of analogue television which it complements, and it highlights the early steps in this implementation which is now close to completion.

The first research question of my thesis aims to detect how DTV entered the market and how it was promoted to achieve reach among potential users. Looking at the spread and pace of diffusion of DTV, at early adoption rates and at the representation moment and meaning injected into it during early marketing and advertising reveals areas where the diffusion of innovations converges with the design processes of the design and domestication infrastructure. I analyse the discourse on Sky digital created by Sky marketing and early adverts. The two approaches of diffusion and design are used here in combination to reveal how the 'consumer was caught' and to provide an account of the meanings, perceptions and understandings of DTV that circulated in the market place at the outset.

My second research question focuses on the people who first decided to adopt DTV: for what reasons, and via which processes did they assess the innovation and decide to take it up and, why are they receptive to change. These questions are significant for two reasons. The audience under study is mostly early adopters. Early adopters are a group that acts as a channel through which novelty enters society. Their experiences are important not only for market research because they provide feedback on potential demand for DTV and the features that should be designed into it, but also for other members of society who seek information about the new technology. I suggest they are a distinct group in the innovation or cultural circuit whose practices significantly influence the flow of moments in the circuit. Second, it is interesting to

---

[34] Ofcom, 2010a. *The Communications Market 2010*, August 2010, p. 17.

look at FGDTV adopters retrospectively, and as DTV has reached a mass market and the analogue switch-off process progresses. The reason for this is that this early audience was qualitatively different from those that followed. For my informants, 'the first generation DTV audience', the transition to DTV, in some respects, was more of a choice, notwithstanding heavy Sky marketing techniques, than it was and is for future DTV audiences who are being 'forced' by the switchover policy 'to go digital'. In this sense, earlier DTV adopters can be conceptualized as more sovereign and 'free-er' to adopt than later adopters; this can be explored in future research.

In any case, an investigation of who are these adopters and why they took up DTV is significant because this special group signals the beginning and thus influences the continuation of DTV's life and culture. An exploration of this special group is enabled by my survey which ensures a breadth of data and information and allows me to sketch a representative profile of the early Sky subscriber. This profile is assessed in relation to those of other technologies and allows inferences to be drawn about the diffusion process of DTV. Factors, such as desire for the 'new', marketing and advertising, family dynamics, the household techno-culture, and others, are considered to reveal the decision-making and early purchase process and its reasons. The relationship between design and diffusion approaches is evident here since it is at this point that (Rogers's) adoption meets (Silverstone's) appropriation and commodification. The link between the market and the household is manifested in this enquiry since it is the *commodification* or adoption stage of the consumption moment, before DTV is put to use, which brings the innovation in the household that is examined.

After providing an account of who first took up DTV and why, I address the third research question of how DTV is used and incorporated in households. Through the survey research and a mapping of the FGDTV audience according to its social and media characteristics, this thesis discusses audience behaviour and offers an account of the uses to which DTV is being put, whether its new features and services are being taken up or whether it is its multichannel element that is more appreciated. By looking at how these users engaged with this new medium and made use of DTV's facilities I explore issues of *newness*, *continuity* and *change*, and audience activity and shaping of DTV in its early years. I analyse the moment of consumption in relation to the media discourse that heralded DTV's entry to the household and make links to the meanings proposed by the representation moment through early advertising. I assess specifically whether the media publicity and advertising discourse that promoted 'ideal' forms of

consumption and 'proper' types of users, and audience excitement revealed in the fast take-up of DTV, are compatible with the actual uses it was put to and the consumption patterns it generated as a new medium and if not why.

My thesis reveals the contribution made by consumers to the meaning and definition of DTV. This aim is further pursued qualitatively through in-depth interviews that allow me to go deeper and in detail into the survey responses, to exemplify and amplify the quantitative findings. Finally, in relation to use and audience behaviour, by analysing the uses of this new interactive medium, this thesis explores issues of interactivity, changing modes of engagement and changing audiences in general, in an era of convergence.

Through my exploration of these research questions, I record the first steps in the life cycle of a medium that is now in its late majority. I try to uncover what DTV was and map out its audience; how it was shaped by its design, how it was defined by those actors that facilitated its early diffusion (such as marketers and advertisers), and how it was defined and shaped by its early audience through use. By taking DTV mainly through the moments of consumption and representation I attempt to provide a comprehensive picture of the forces that were at play in the DTV circuit and show how they contributed to its social and cultural shaping in its early years. DTV is examined as an innovation, as a technology and as a medium. At the same time, under the corresponding theories of diffusion and domestication, it is examined in the macrocosm of the market and in the microcosm of the household, conceptualized as both a commodity and a personal item. It is significant for the theory to approach such an enquiry through the framework presented in this chapter, a framework that links diffusion of innovations with the design and domestication perspective, which, to an extent, addresses domestication issues in order to extend the diffusion approach in the household, and calls for a convergence in the theoretical approaches used to study multifaceted phenomena or practices such as the introduction of a new medium in a comprehensive manner. This complexity, I would argue, is best studied through a multiple method design, such as the one employed here, and which is discussed in chapter 3.

Chapter 3: Methodology

Introduction

In the late 1990s DTV was a frequent topic for discussion; it seemed a promising forthcoming technology, an interesting research topic, and a platform for policy, regulation and all sorts of government plans. After its launch adoption rates were impressive, and the first service launched, Sky digital, demonstrated one of the fastest technology diffusions in Europe.[35] The UK was the leader in DTV in many respects. It was one of the first countries to launch DTV, the technology was well developed in comparison to other countries' services, and access to all platforms - satellite, terrestrial, cable - was soon available.

Graph 3.1 presents the diffusion rates of DTV in the UK, detailed also by provider, from its launch with the introduction of Sky digital on 1[st]October 1998 to 2002 when Freeview service became available.[36] It shows the rapid adoption in these early days of DTV. My research took place within this timeframe and while the curve was steep. In particular my quantitative research was conducted between late 2000 and early 2001 when adoption rates in the UK were close to 7 million households;[37] the sample was drawn in August 2000 when DTV penetration was around 5.25 million households[38] and Sky digital accounted for 3.8 million.[39] Despite fast changes in adoption rates, the time when the sample was drawn generally represents the moment on the diffusion curve on which this thesis focuses. This is the time by which all informants were subscribers and the moment based on which they are classified as FGDTV audience. Even though at that time DTV had entered the early majority (14.2%)[40], the DTV adopters studied are defined as the 'first generation' DTV audience (FGDTV) based on innovativeness (Rogers 1995), being a mix of adopter categories but

---

[35] BSkyB, (10 May 2000). Announced *Results for the nine months ended 31 March 2000*.
[36] Graph 3.2 in appendix 3 presents overall DTV take-up in the UK from 1998 to 2009, and graph 3.3 from 2001 to 2011.
[37] DTV Group. 20.12.00 *Another digital milestone!*
[38] Oftel, 2000b. *Consumers' Use Of Digital TV - Summary of Oftel Residential Survey, Q2*. August, 2000.
[39] BSkyB, (26 July 2000). Announced *Results for the year ended 30 June 2000*.
[40] Table 3.1.1 in appendix 3 presents the calculations and rationale on which this figure is based.

in their majority being innovators and early adopters; and because the medium itself was at an early stage of development.[41]

DTV take-up (1998 - 2002)

<div align="right">
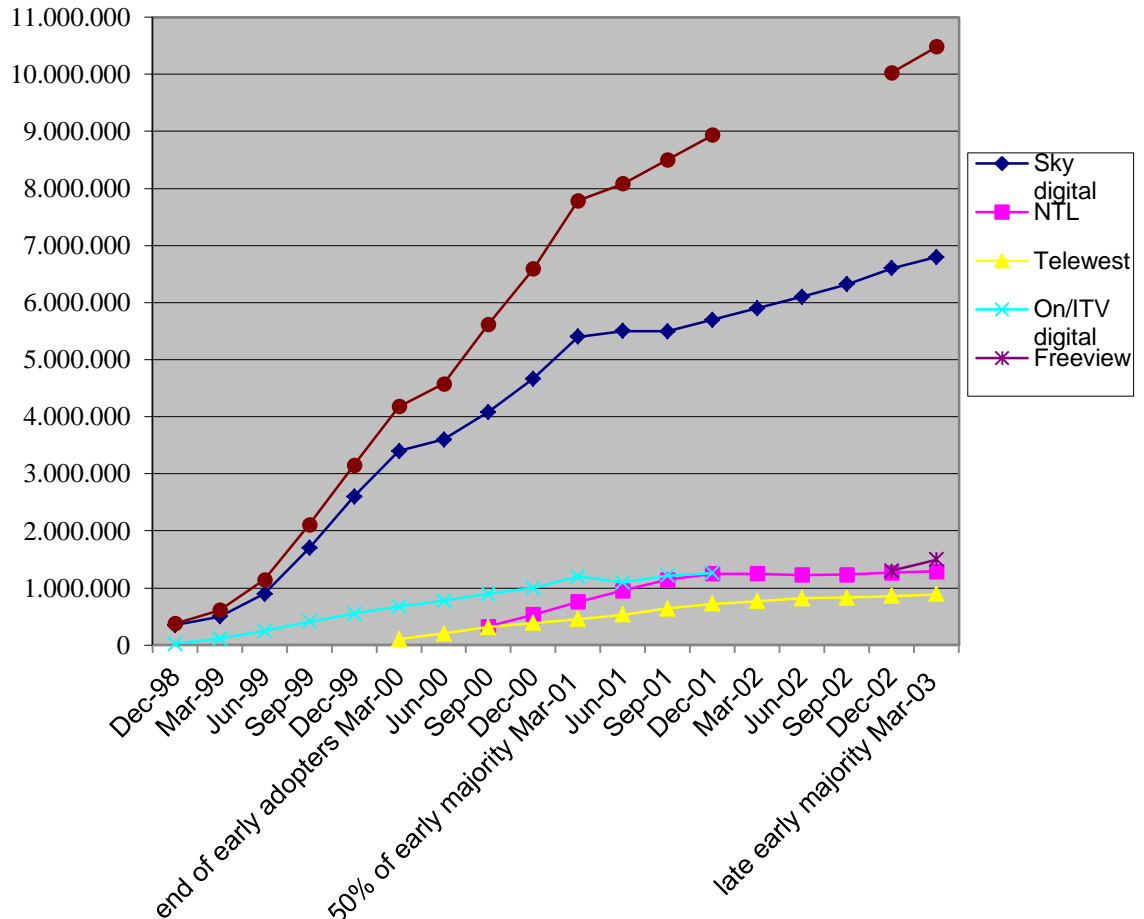
Graph 3.1[42]

</div>

---

[41] In January 2001 when the survey was conducted, Sky digital was a multichannel interactive service but provided few opportunities for enhanced interactive use. This has changed since with increased offers of enhanced, in-programme interactive features. Thus, Sky digital's offering at the time can also be considered first generation DTV.

[42] The March-September 2002 gap is due to lack of official industry data caused by ITV digital's period of administration and subsequent closure. After ITV digital's collapse and before Freeview was launched, the future of the terrestrial platform and its subscribers was uncertain. Some abandoned their set top boxes and migrated to other operators; however, the majority kept them in anticipation of takeover by a new provider. These eventually were incorporated into Freeview. It is estimated these were around 900.000 (source: Bretas, 2002). The statistics applying to this period of upheaval are either missing or inexact. As shown in the graph, March 2000 signals the end of early adopter stage with 16% of UK households having acquired DTV. Between March and June 2001 DTV adoption had reached 50% of early majority, with approximately 34% of UK households accessing DTV.

Within this context of fast take-up, the empirical framework for addressing my research questions and aim to recount the biography of DTV in the production and design, representation and identity moments and, particularly, in consumption was formulated. Chapter 3 presents the methodological framework that guides the empirical investigation. I discuss some theoretical considerations on triangulation and use of a mixed method approach to research, and highlight the ways that my research fits this model. I discuss the benefits of multiple methods design and the types of informants and research excluded from this study. I describe my research design and show how it is operationalized. I outline the research questions and justify the choice of methods used. Finally, I discuss issues of organization and access, sampling, criteria for selecting interviewees, questionnaire and topic guide design, implementation, data collection and analysis.

Mixed theories - Mixed methods

The timing of the research and its conceptualization of DTV are crucial for understanding the approach taken both theoretically and empirically. I study DTV at the time when it was launched and was *new* both *to the market* and *household*. Its route, definition and meaning were beginning to form in both sites (market and household) through both processes (diffusion and appropriation) at the same time, the time of investigation. Thus the theories of diffusion of innovations and domestication are appropriate for this enquiry. In this study diffusion of innovations provides accounts of DTV as a *commodity* and of its spread in *society*; by drawing on domestication theory it also provides insights into DTV as a *domestic object* and its adoption, appropriation and use by *households*. In line with these theories, I study DTV as a market good and a domestic object using quantitative and qualitative methodologies.

Chapter 2 explained that this work is not exclusive to one research tradition; it extends diffusion theory by incorporating also theories of use and domestication. I build a theory and methodological framework around my object of study. The convergence and complementarity between the theoretical approaches I propose, call for the use of mixed methods. Based on my theoretical framework, I examine the introduction of DTV following a multiple method design.

This multiple method design is based on a combination of quantitative and qualitative methods. Although not aimed at resolving the epistemological debates surrounding the polarization between the positivist and interpretive schools of thought (Hammersley and Atkinson, 1995, 2007; Campbell and Holland, 2005), I approach this investigation empirically in the belief that quantitative and qualitative research approaches instead of being in competition, can be complementary. Jick (1983, p. 135) notes that given that they correspond to the project's theoretical framing and aims, 'qualitative and quantitative methods should be viewed as complementary rather than as rival camps'.

My empirical design is in agreement with Pierson et al. (2008) who suggest that, as discussed in chapter 2, diffusion as principally quantitative research oriented towards access and adoption-decision, and domestication as qualitative research oriented towards use and appropriation can work together in a complementary way. I would suggest that their respective methodological approaches can also work in a complementary way. The parallels between theory and methods in the context of my research are discussed further later in this chapter. Below, I focus on what, traditionally, has been conceived as the incompatibility of quantitative and qualitative research, consider what underlies this position and the benefits of combining these types of research.

Mixing Quantitative and Qualitative Methods

Epistemology differences

In social science, certain fundamental assumptions about the world, structure the aforementioned schools of thought or research paradigms, which, in turn, frame the research approach adopted and the methods used. These views about how social reality should be studied shape epistemological positions that may be considered 'fundamentally incompatible' (Bryman, 1988, p.153) and on which qualitative and quantitative research is based. Positivism or empiricism assumes an objective reality that exists independently of the researcher (Hammersley and Atkinson, 1995; Buckingham and Saunders, 2004, pp.16-27), which can be captured by social research based on objective epistemological laws and tools. Constructivism or Interpretivism, on the other side, argues for the existence of multiple realities and claims that the researcher is subjective not objective since it is through the researcher's interaction with the research object that findings emerge and are shaped (Guba and Linkoln, 1989, p.143; Buckingham and Saunders, 2004, pp.27-36).[43] Lobe et al. (2007) discuss how theoretical perspectives guide empirical research and how empirical frameworks fit with particular perspectives or schools of thought: 'there is a ready (though not necessary) translation from questions of knowledge to approaches to empirical research, with positivist research tending to favour quantitative research...and interpretative… favouring qualitative research' (ibid., p. 9).This 'ready' or 'fixed' translation from questions of knowledge to methods of investigation is hard to challenge. Yet, whilst paradigm theorists have not resolved their major differences and these paradigms and theoretical perspectives remain largely in binary opposition, it is acknowledged that between objectivism and relativism there is room for negotiation. Also, and in relation to the methodological tools in particular, scholars have demonstrated that *triangulation* renders qualitative and quantitative methodologies not mutually exclusive.

---

[43] Post-positivist traditions and critical theory (Cuba, 1990) seem to assume mid positions in the epistemological continuum from Objectivism to Relativism. Post-positivism strives for objectivity while also acknowledging the role of the researcher in shaping results, and is more open to qualitative methods than positivism. Critical theory, whilst rejecting positivism and highlighting the significance of the researcher's role in shaping the research, can be more open, than constructivism, to quantitative methodologies, especially since it 'emphasises a dialogical approach, mainly but not always employing qualitative methods' (Lobe et al., 2007, p. 9).

Calls for and gains from theoretical and methodological convergence

Convergence approaches to both theory and methods are gaining momentum within media studies. Proponents of multiple methods in media studies highlight that field and object of study are multifarious, with interactions with and in various complex areas, institutions and activities, and should not be examined in isolation, but in relation to the many linkages within the social system (Gunter, 2000). Therefore, theoretical and methodological triangulation is crucial because it highlights the complexity of the issues being studied (Hansen et al., 1998). Amongst proponents of a multi-method design, Lull (1985) calls for convergence between qualitative and quantitative research because it brings to the fore the 'potential for accurate description and explanation of the significance of communications in all contexts' (ibid., pp. 219-20). Accordingly, Hansen et al. (1998) discuss how the field of media studies can be approached from a number of different disciplines and theoretical positions. They argue that the complexity and nature of the subject, demands convergent or complementary perspectives in both theory and method; and explain:

> [a]lthough this creates problems, particularly in theory-building, in no way should we subscribe to an opposing view that there is one position, one theory, one approach...superior to all others…which should guide our research…and structure our interpretations....Quantitative and qualitative approaches are both valid and should complement each other. (ibid., p. 18)

These views are illustrative of the theoretical and methodological approaches in this thesis research.

For those that espouse theoretical convergence, the benefits of mixed methodological approaches are clear. The belief that a combination of qualitative and quantitative methods will result in a better and deeper understanding of the research problem is becoming more and more accepted. It appears that a single method does not answer all the problems since it usually provides a 'partial account' of reality and may need to be complemented by other methods and accompanying accounts (Lobe et al., 2007, p. 24). Similarly, many media scholars acknowledge that a combination of quantitative and qualitative methods on the same object of study may 'compensate for each other's weaknesses and together provide a better insight into the phenomenon we are studying' (Friessen and Punie, 1998, p. 73).

The epistemological division and (practical) differences of design means that each methodological approach has different advantages and disadvantages. Frey et al. (1991, p. 99), explain that 'quantitative observations provide a high level of measurement precision and statistical power, while qualitative…greater depth of information about how people perceive events in the context of the actual situations…they occur'. The two methods and form of data can be viewed as having some complementary strengths and weaknesses. Qualitative research is associated with ecological validity and contextualization whilst quantitative methods offer reliability and generalizability of findings. Within media studies, the weaknesses of single method approaches are highlighted by Roe (1996) with particular reference to quantitative Uses and Gratifications and qualitative Reception studies. The former are 'too concerned with the (ever important) task of assessing reliability, at the expense of the still more important issue of validity' Roe (1996, p. 90) explains, whilst the latter although strong on validity suffer lack of generalizability since they consider only a few informants. These and related methodological weaknesses in various media traditions have been acknowledged by scholars and there is a trend towards mixed methods.[44] Exemplar studies of this kind are discussed in succeeding sections.

It is suggested that an integration of approaches, that is *triangulation*, eliminates their weaknesses by combining their strengths, and produces findings that 'on aggregate, have greater truth likeness and explanatory power than either method would…produce if applied on its own' (Schroeder et al., 2003, p. 356). Thus, in a multiple methods study, through cross-examination, the limitations of each method are reduced and more robust and reliable findings are likely. Addressing the pros and cons of each method and their conjoining, Frey et al. (1991, p. 99) suggest that triangulation of methods 'enhances both the precision of the data gathered (with quantitative observation) and the contextual influences on those data (with qualitative observations)'; whilst in distinguishing between contextual (qualitative) and non-contextual (quantitative) research approaches, Campbell and Holland (2005) suggest that what the former loses in terms of breadth of coverage the latter gain in depth of

---

[44] '…even if this means sacrificing some of their sacred cows, learning from credibility-enhancing practices imported from the other camp' as Schroeder et al., (2003, p. 350) note.

understanding.[45] For an enquiry that aspires to ensure both breadth and depth of information, mixed methods are required.

Strategies of mixed methodology - Methodological triangulation

The advantages of converged methods have been highlighted. Such gains can be achieved through triangulation, a strategy that involves employing more than one method to enhance research credibility. According to Flick (1998, p. 230), triangulation 'was first conceptualized as a strategy for validating results obtained with the individual methods'. Triangulation is about combining different qualitative methods or mixing qualitative with quantitative methods. Although agreed that it is a 'promising example of methodological pluralism' (Schroeder et al., 2003, p.360) scholars have slightly different conceptions of its purposes. For some it is a tool to enhance validity; others see it as 'an alternative to validation which increases scope, depth and consistency in methodological proceedings' (Flick, 1998, p. 230). In reality, these positions differ very little since whether aimed at validation or scope and consistency, triangulation is effectively about the soundness of procedures and the strength of data and results.

Denzin (1989, pp. 237-41) distinguishes four types of triangulation: data, investigator, theory, and methodological. The latter is performed either *within* or *between* methods, as the between methods combination of quantitative and qualitative research tools implemented for the present research. Triangulation can take many forms and be performed in a variety of different ways: across theories, 'across time, space, personnel, settings, organizations, methods, and researchers' Hansen et al. (1998, p. 45).

Another strategy for combining methodologies in social sciences is through *complementarity*. Some see this as a manifestation of triangulation; others see it as a completely different strategy. Although there is no general agreement in the literature on what distinguishes these two modes of mixing methods and the lines separating them, one of the main differences is that complementarity generally concerns using different methods to look at different research problems, whilst triangulation different methods to examine the same phenomenon. Concerning triangulation Bryman (1998, p. 131) supports that the same research problem can be studied via different ways though

---

[45] Campbell and Holland (2005, p. 5) go on to say that 'the quantitative part stands for a more descriptive, analytical breadth of coverage, while the qualitative part offers power in terms of the richness and depth of information'.

the use of quantitative and qualitative research combined. On the other hand, the basic idea of complementarity, Brannen (1992, p. 12) attests, is to use 'each approach in relation to a different research problem or different aspect of a research problem' (also Jensen, 2002). Lobe et al. (2007, p. 15) note that

> [b]y contrast with triangulation, where different sets of data are expected to be consistent and congruent with each other, in the case of complementarity the data sets are expected to diverge in order to capture a broader view of the phenomenon under study.

By this they do not mean that triangulation *requires* that the different data sets be consistent since they relate to the same research question. After all different methods are expected to produce different results (Schroeder et al., 2003). Triangulation rather *seeks to examine* whether the data sets are consistent and if not why they might not be in practice. So using different methods to address the same questions does not necessarily mean arriving at or looking for congruent data. This is not a precondition of triangulation since many researchers are more interested in the depth, range and scope of data interpretations. Bryman (1988, p. 133) concludes that 'since quantitative and qualitative research undertaken in the same investigation may provide mutually reinforcing results…the possibility of discrepant findings also exists'.

Mixed methods for researching early DTV – A case of Auxiliary Triangulation

This study follows a mixed method design aligned with the complementarity of the theoretical perspectives it proposes and which frame it. It employs survey research and in-depth interviews to examine the early take-up and spread of DTV from a variety of angles drawing on diffusion of innovation and domestication theory.

My research looks into both the market and the household and both access and use. A survey was administered, in line with diffusion study methodologies, to obtain a general picture of diffusion rates, adoption patterns and adopters' characteristics but *also* a picture of *use of DTV*. In depth interviews further explored use and individual experience with DTV *in* the domestic setting, entering the domestic territory that diffusion research usually overlooks. Domestication theory, by wondering what technologies mean to people in their daily lives, has been linked to qualitative

approaches and methodologies. This, however, does not exclude the use of quantitative methodologies for addressing issues of concern to domestication.[46]

In my thesis, although I do not conduct a domestication study, I expand the diffusion approach to the household to address some domestication related issues and concerns through my quantitative investigation. My survey research is not limited to questions related to the diffusion and adoption process but proceeds to also address questions of use and domestication; notwithstanding that these are also explored in the qualitative interviews. Quantitative research is used to explore what happens inside the home. Therefore, my approach is a *hybrid* mode of research to study media adoption and use in the home. It starts with examination of the new medium coming from 'outside-in' and with quantitative questions about media use, preferences, habits, but it also reflects the dynamics of family, the concerns of users and the wider practices of the household. Following the survey, I applied qualitative research to strengthen and develop my findings.

Concerning the specific strategies of combining methods, my study adopts an *auxiliary mode of triangulation*. It follows an 'auxiliary' method combination in that it 'use[s] one method as an auxiliary strategy for gathering information to be fed into the research material of the other' (Schroeder et al., 2003, p. 356). This auxiliary mode of triangulation or method combination is what Jensen (2002, p. 272) calls 'facilitation'. In this research the *survey* was used *to facilitate* the sampling and undertaking of interviews, but, significantly, the *interviews* were performed and then used to *enhance the survey* findings and interpretation.

More specifically, a *sequential explanatory design* approach (Lobe et al., 2007) was followed. First the investigation was approached quantitatively. Qualitative research was then used to complement the survey. The rationale for this is offered by Bryman (1988, p. 137) who suggests that 'the initial quantitative research allows a "mapping" of the issue to be addressed and also provides the basis for the selection of comparison groups for in-depth…interviewing'. This intention was supported further by the theoretical basis of my thesis starting from diffusion of innovations and *the general,* and zooming in on domestication perspectives to study *the particular*.

---

[46] As already noted Silverstone in his later work concluded that quantitative and qualitative methodologies can complement each other in domestication studies (Haddon, 2007, p. 29) In chapter 2 I refer to domestication theory's focus on qualitative methods being challenged and expanded lately to also include quantitative practices (Punie, 1997; Haddon, 1998; Pierson, 2006; Pierson et al., 2008).

Lobe et al. (2007), in their categorization of six mixed methods techniques[47] clarify that in *sequential explanatory design* first quantitative data are collected and analysed and '[p]riority is usually given to the quantitative part and the two methods are integrated during the interpretation phase of study. The typical purpose is to use the qualitative results to assist in explaining…the quantitative' (ibid., p. 15). This is the intention of my in-depth interviews with Sky digital subscribers. These provide an in-depth understanding of various issues such as the adoption, initiation, familiarization and use of DTV, whose significance was highlighted initially by the survey. The interviews assist with interpretation of the survey and enhance its original findings. Having preceded the qualitative phase of research, the survey also guided the selection of the sample for the interviews.

This qualitative part addresses some of the weaknesses of the diffusion perspective, discussed in chapter 2, by extending and contextualizing it and providing some in-depth insights into the domestic appropriation of DTV. However, it should be stressed that the survey, which reflects my focus on the diffusion and adoption process *but also* on use and domestication, is the primary method and means of investigation in this research. Bryman (1988, p. 132) notes that 'as is often the case with studies in which quantitative and qualitative research are combined, one method...ten[ds] to be accorded greater prominence than the other'. The survey carries the main argument and contribution of my thesis, provides answers to its key concern of how and why the spread and adoption of DTV took place, and draws the profile of first generation adopters. The interviews were used to complement, to provide clarifications, to support and expand the quantitative study, in the way described by Bryman (ibid, p. 147) of 'the recourse to qualitative research allow[ing] the investigator to flesh out the meaning of findings established through quantitative methods'. In this auxiliary triangulation approach, and on another level, a third set of data on adverts and marketing analysis provided a base for examining and understanding a different issue; that of how rhetoric and representation influenced the shaping of DTV.

This multiple methods approach is employed to pursue the aims of the research comprehensively. It is a blend of quantitative and qualitative methods that correspond with the various theories and, at the same time, mirror and are dictated by them, but not

---

[47] The other five are: sequential exploratory design, sequential transformative design, concurrent triangulation design, concurrent nested design and concurrent transformative design (Lobe et al., 2007, p. 15).

in a deterministic way. More emphasis is put on the quantitative research, whilst qualitative data are used to complement the survey and as a corrective. As noted, the survey addresses questions related to domestication issues which are not pursued only in the interviews. In what follows, before a more detailed rationale of my research design, I discuss two studies which share my theoretical concern about new media *access* and use, and were influential in my research in terms of their methodological framework and tools used.

Mixed methods in new media studies

In the field of new media studies, multiple methodologies were used by Livingstone and colleagues in a number of research projects concerning children and young people. The first of these, 'Young People and New Media' (YPNM) (Livingstone and Bovill, 1999), is an investigation of the place of new media in young people's lives and looks at patterns of access and use of new and old media across households and cultures/nations. Integrating qualitative approaches, such as *group interviews* with children in schools, *interviews* with children and with their parents at home and other techniques, and *quantitative surveys* of young people and parents, and their *time budget diaries* (Livingstone, 2002, p. 253), the project offers a cartography of children's media environment in the UK at the end of the century.

At a time when both excitement and concern about the implications of new media in children's lives was emerging and the internet was beginning to spread, information society rhetoric flourishing and technology in education gaining momentum as a social policy (Facer et al., 2003, p.8), the YPNM project mapped children's media environment, and offered interpretations and explanations of its significance in children's lives. The YPNM study provides a useful methodological framework and its design is informative for my research. Although my research takes a different approach in the sequence of methodologies and draws mostly on the quantitative part of investigation, it shares with the YPNM project acknowledgement of the significance of *mapping out and recoding access* in order to be better positioned to detect *change* in a fast changing new media environment.

Similarly, Facer et al. (2003) conduct a multiple methods study, ScreenPlay, on UK children's uses of computers between 1998 and 2000. It assesses the role of computers in children's lives and how this role is shaped by children and their families.

At the same time as drawing on different theoretical backgrounds, such as media and cultural studies, sociology, psychology and education, it draws on different methodologies to address key concerns.

ScreenPlay employed *questionnaire surveys* of primary and secondary school children, *case studies* and *observation* of young people and their families over an 18-month period and *group interviews* with young people in schools. Participants in the qualitative phase had all participated in the surveys. The similarities with my research are that ScreenPlay used quantitative followed by qualitative research; used the survey to address questions of ownership, access and use, and designed the samples for the qualitative phase from the original survey sample based on data, clues and findings derived from it. However, despite similarities in the sequence of methodologies and sampling strategies, Screenplay is a largely qualitative study based on extensive descriptions of computer use and its role in domestic context. It focuses on how computer use relates to identity formation, and how this is related to gender, class and culture; how children are learning from and with computers at home and school; and how parents' past practice and experience with computers, the 'technological biography' of the medium, seems to shape future use and its context. This last applies also to my study.

ScreenPlay uses survey research to provide the general context of computer use yet insists that its aim is not to find what is 'typical', 'uniform' or quantifiable in children's use, but map 'the diverse ways in which individual children are making sense of and using these new tools in their daily lives and learning' (Facer et al., 2003, p. 27). ScreenPlay researchers focus on the qualitative. For the particular aims of their and related research they call for more and more detailed qualitative approaches and conclude that 'we need to look beyond the headline numbers heralding the digital generation and engage with the lived reality of children's experiences with computer in the home' (ibid.). However, they do not dismiss survey and quantitative approaches. They acknowledge their contextual value as part of a mixed methodology approach. The value of survey research to provide generalizations and contextual information is highlighted in my research. Especially concerning the, then, newly launched medium of DTV, the survey provides valuable information on what was typical in diffusion rates, adoption patterns, adopter characteristics and use habits. This is illustrated by the empirical framework for the present research.

Research Design

The rationale

The decisions about methods and sampling strategies were made with respect to the research questions and rationale of the theoretical framework. The starting point for the design of empirical investigation was that throughout this project DTV is examined both in terms of its diffusion, circulation, design and construction of its image and, mainly, in terms of its adoption and consumption by subscribers. Specific methodological tools were employed to provide an account which would examine source material from the *market* on the one hand, and the *household* on the other, but with the main focus on the latter.

The research questions

My research is based on a range of questions discussed in detail in chapter 1 concerning the broader theoretical issues of the relationship between technological evolution and society; how an innovation spreads through our structures and what are audiences' responses to it; the relationship between novelty and change; how people make sense of the 'new' and what is the role of 'old' frameworks of experience and practice in accepting new ones, in order to explore the more specific concern of how DTV was marketed, taken up, used and made meaningful in the lives of FGDTV users. These questions relate to the representation and mainly consumption moments of the circuit of culture, but also make links with the identity and production moments. The specific research questions are:

First R.Q. How did DTV enter the market and how was it promoted in order to achieve reach among potential users? How was DTV defined or shaped by 'design' and by actors such as marketers and advertisers?

Second R.Q. Who were the first generation users? Through which processes did they take it up and why, and why were they so responsive to change?

Third R.Q. How was DTV used by its adopters and thus defined through use? What were their opinions of it after experience? Did it deliver the industry promises? Did they see it as offering something new or as a significant development of past technologies/ practice?

To answer these questions, a combination of qualitative and quantitative methods was employed to study DTV circulation, adoption and use in scope and depth. Different methods and data sources were used to investigate the different aspects of the research, namely DTV promotion and meaning construction through marketing, its diffusion and take-up, and its use in FGDTV households. In particular, I conducted an analysis of early Sky marketing and advertising in chapter 5 and provide a brief analysis of the discourse of government on DTV in chapter 4. In line with Mackay's (2007) discourse analysis of policy documents of a later period, my aim is to present the prevailing public discourse, but mainly to reveal the meaning DTV acquired through these processes of marketing and advertising. Further, my auxiliary triangulation scheme, discussed above, enabled DTV diffusion and FGDTV adopters and their media use to be portrayed as 'a factual slice through time' (Livingstone, 2002, p. 25) using survey research, and to offer a more contextualized articulation of their experience with DTV through qualitative interviews.

The methods

This multi-method design looking at the market and the processes of design and diffusion and, primarily, at the household and its processes of adoption and use, includes the following elements.

<u>Advertising/marketing analysis</u> focused on the representation moment and how meaning was produced at that stage. Analysis of adverts and key marketing campaigns in the early period, allows examination of how marketing and the rhetoric of advertising created particular understandings of the new medium and audience, and how visuals encouraged certain meanings and expectations.

<u>Survey research</u> with DTV subscribers, employed to look for quantification, sketch a profile of FGDTV adopters and reveal their characteristics and to provide information on existing patterns of television viewing/preferences and emerging patterns of use.

<u>In-depth interviews</u> with a sub-group of the original survey sample to complement the survey findings and provide more in-depth understanding of users' experiences with DTV. As part of an auxiliary triangulation the interviews added to the survey findings.

Although one of the objectives of my research was to capture the view of the market, and its promotion of DTV and how it intervened and gave connotations to the new medium, my main focus is on the audience, on how early subscribers were caught up in this chain of promotion and how they used and inscribed their own meanings in

DTV. Within this framework, the survey of subscribers to DTV is the main empirical contribution of this research.

Excluded types of informants, audiences and research

The plural approach and methodology of the research design and its rationale have been discussed. They are not holistic but particular and, therefore, restricted and bounded. There are specific aims which do not include all aspects of the object of study. The research focus and specific research objectives excludes certain approaches, types of informants, and types of research.

The intention of this research was to study the spread of a new medium to its audience and focus on its first life steps both in the market and at home. This required certain decisions about the empirical enquiry. The methodological approach centres on FGDTV users and consumption and some aspects of design and marketing of the new medium. It emphasizes users and audiences and provides a discussion of the early image construction of DTV. Given the difficulties related to access, time constraints, and to a certain extent theoretical incompatibility, it was not feasible to engage with the whole of the production and design process, talk to producers of DTV and technology developers or marketing departments. These types of informants would not have contributed to my specific empirical endeavour. The implications of the decision not to interview producers or do ethnography of the design process are not underestimated however, and certain limitations of this decision are acknowledged. The thesis discusses and provides an interpretation of the company's policies and decisions. It looks at the role of producers in defining consumption and the meaning of DTV indirectly, through secondary data sources, and not by talking to them, when arguably the participation of producers would have provided the insider's point of view and analysis of their official aims, intentions, strategies; and of their imagined and target audience. Interviewing Sky or DTV producers at the development, design and marketing stage/departments would have provided 'official' answers to my reading of their practices; could have corrected possible misinterpretations of my analysis of their advertising and marketing strategies and would have given more relative strength to such interpretations. However, the views of those involved in marketing and sales were unofficially discussed and integrated in my analysis since these people I talked to a number of times as they were the gatekeepers who allowed access to my informants and to source material of their advertising strategies.

Similarly, given the focus on those who took up DTV, non-adopters are not included in this enquiry. Arguably, non-adopters and non-users could have been examined as a control group. It would have been a valid and interesting research objective to investigate how and why DTV as a new medium appealed to some and not to other individuals. It would have allowed reflections on whether it is economic, social class, chance, 'resistance' to change, or a combination of other parameters that play a role in consumers' participation in the digital age and decision to go digital or not.

Silverstone and Haddon (1996b) in their research on the non-adoption of cable television in AB social class households talked to both adopters *and* non-adopters in their attempt to explain the relationship of AB families to television. Among other things, they concluded that there were not simple correlations between interest in and adoption of cable TV and socioeconomic circumstances amongst AB social class households, and that there usually were 'other than economic reasons for resisting cable' (Silverstone and Haddon, 1996b, p . 32) such as the 'worthwhileness' of the service. Non-adopters were, among other things, concerned about control of their time and about ending up watching more television; crucially, they were concerned about controlling their children's viewing; about value for money, the aesthetics and symbolism of the satellite dish and about social distinction. Even though there was no 'sharp distinction between the attitudes to cable of those who had it and those who did not' (ibid, p. 33) Silverstone and Haddon's research and their analysis of both adopters' *and* non-adopters' response to cable TV allowed for a nuanced and in-depth account of those parameters that played a role in its take-up or resistance to it. It highlighted some of the reasons that justify the lack of a 'trickle down' mode of adoption of cable TV in the UK; like, for example, the users' concerns discussed above. In a similar fashion, including non-adopters of DTV - especially those in higher socioeconomic strata - in my research design could have allowed for more in-depth explanations of the 'trickle across' adoption pattern DTV followed (chapters 6 and 7) to come to surface.

In all research, inevitably certain types of audiences and subjects are left unexplored and certain questions are answered. In this study the early audiences and uses of DTV are investigated and the first steps in the life cycle of DTV accounted for. The focus is on a *particular moment in time*, when DTV entered the market and the household and on recording its meaning and uses at that particular time. For this, multiple methods and data sets are used. I discuss these in detail and show how the research design and questions were operationalized.

Operational Framework: Research Design and Data Collection

Organization and access

To get access to the field I approached DTV providers, the so called 'gatekeepers' (Hammersley and Atkinson, 1995, pp. 63-67), and explained my research intentions. Processes of negotiating access started by an approach to Sky digital and a request for access to their subscriber data base. Despite the difficulties and constraints entailed in approaching experts, institutions and persons in authority, in May 2000 I was ensured access to Sky digital subscribers. This was fortunate since large organizations do not readily provide external researchers with such information.

In particular, the late Professor Roger Silverstone and my co-supervisor at the time, approached Ray Gallagher, then BSkyB Director of Public Affairs, who he had previously cooperated with when he had been invited as a guest speaker at the Media seminar at the LSE. Prof. Silverstone introduced my research plans to him and I was directed to the then Head of Research of BSkyB, Mr. D. Russell for further liaisons. After initial correspondence via email, I visited the Head of Research of the corporation at their headquarters in Osterley. I described my PhD objectives and asked permission to draw a sample from the Sky digital subscribers list. I was given official permission for this after submitting in writing the research aims and methods of my study. This permission signalled the development of an official collaboration with Sky digital and its research department that lasted until my survey had been completed and they had received a report of the preliminary findings. My responsibilities to Sky and its institutional representative were that I would send them my questionnaire and covering letter before these were sent to their subscribers, and that an analysis of the key findings of my research was presented to them after its completion. It should be noted that this was not research contracted by BSkyB and the only, but much valued, 'return' was the sample of Sky digital subscribers given to me on 22 August 2000.

The interventions of Sky digital in my research were at a level that was manageable and did not involve significant compromises on my part concerning the

aims of the study.[48] Sky's main preoccupation was that their clients were not disturbed either by me sending them questionnaires, or by the phrasing of my covering letter or the phrasing of the questions asked. Their request to see both the letter and the questionnaire and their comments and suggestions on these were all oriented toward this goal of safeguarding that their clients were not annoyed or offended by anything written. Despite the tension involved in liaising and negotiating with such a large institution, their notes and comments were much appreciated and in the end helped me design a clearer questionnaire.

A presentation of my preliminary findings was delivered to Sky in their headquarters soon after the conduct of the survey. They were particularly pleased with my response rate of 35.25%; something which obviously signalled to them that their clients were not disturbed but rather willing to participate in my research. They showed particular interest in what the respondents had answered in my open-ended question at the end of the questionnaire (asking them to note down if there is anything more they would like to add). Most responses there indeed had to do with complaints Sky digital subscribers had about repeats, or the Sky customer service, about the pricing and packaging of the channels and about poor reception or picture quality in some areas. Sky noted down such responses with care. This presentation signalled the end of the first phase of my collaboration with Sky digital.

Gerson and Horowitz (2002) note on the subject of access to large institutions, that although the power dynamics cannot by any means be balanced, it is largely up to the researcher to sustain good relationships with the informant (Sky digital in my case) whilst avoiding intrusion into the research; something which I believe describes my case. The good collaboration with Sky continued after my survey. I made sure I kept communication with them via email, informing them about my research and how it was

---

[48] In particular, Sky required inclusion of the phrase in italics 'I am conducting this research as part of an academic project at the London School of Economics and Political Science *and on behalf of BSkyB'* in my covering letter to subscribers (see: appendix 3). Although the research was not commissioned by BSkyB or conducted on its behalf, this wording was acceptable since it signalled to my informants that their details were extracted from an official source. Also, Sky digital had concerns about my question on ethnicity and their clients being disturbed by it. I explained the benefits of including it, agreed to put in my questionnaire a transitional statement explaining why I am asking such demographic questions to allay any fears, and, since Sky had no intention to intervene or guide my research, their reservations were bended.

progressing, and Sky later furnished me with material required for the analysis of advertising and marketing of DTV discussed in this thesis.[49]

Study population

Gaining entry to Sky digital required me to specify my object of study, from digital television in general to Sky digital in particular. Getting access to all four DTV companies operating at the time (Sky, ONdigital, Telewest, NTL) was too big a task for such a small-scale project. Out of these four DTV operators, for reasons I explain below, Sky digital was the most appropriate in the context of my research. I limited the population base for the empirical research to Sky digital subscribers who registered with the Sky service between 1st October 1998 and 22 August 2000, excluding other digital operators' clients.

This decision had advantages and disadvantages. Having only Sky subscribers as informants biases the sample and poses issues about the generalizability of the findings. However, at the time, BSkyB had the largest subscription base which accounted for 72% of the UK's DTV population. This allows some inferences to be drawn about DTV at the time. Still, the empirical contribution of this thesis is the study of satellite DTV not DTV in general. Additionally, BSkyB was the first to offer *enhanced digital services* while other companies were offering only multichannel DTV. This offer was included in the timeline of my study and affected modes of audience behaviour with interactive DTV and therefore was in line with the aims of my research. Even had it been possible, to mix information from all four operators' subscribers in the same sample would have provided a very complicated picture since these companies offered very different services, entered the market at different times, delivered through different platforms (satellite, cable, terrestrial) in different regions, etc. All this would have made the drawing of a sample extremely complex.

My access to Sky digital led to other considerations such as adjusting the other methodological strategies to comply with the survey population. To ensure that the research design was coherent and consistent, I focused the analysis of adverts and interviews also on Sky digital. At the same time, I followed and noted developments on other platforms and on early DTV diffusion, adoption and policy generally.

---

[49] Discussions over arrangements with Sky experts during this whole process provided me with informal insider viewpoints, observations and secondary material which enhanced my own knowledge of the Sky corporate environment.

The focus on Sky digital and satellite DTV although raising questions related to generalizability, provides data about a group that at the time represented the majority of DTV subscribers in the UK. In its first two years, DTV almost equalled Sky digital. As already noted, of the 5.25 million household subscriptions in the UK, 3.8 million were to Sky. Graph 3.1, in the beginning of this chapter, shows this clearly: the diffusion curve of DTV is almost identical in shape to the curve of Sky digital, confirming the effect of the latter on the overall diffusion of the medium in the UK. Overall, the population I focus on has the advantage that it derives from the provider that launched DTV in the UK, was receiving the most technologically up to date services, and represents the majority of the DTV subscribers at the time.

Adverts Analysis

My first research question focuses on how DTV entered the market and was promoted to attract potential users. This is addressed by looking at the spread, pace of diffusion and early adoption rates of DTV and by revealing the meaning injected into it through early marketing and advertising. The aim was to analyse the publicity mechanisms used to communicate Sky DTV to the public. The theoretical scope and aims of my project centre on the market and the diffusion/design processes and are reflected here by the focus on representation and how the 'image' of DTV was constructed and projected through marketing planning and advertising rhetoric.

In chapter 2, I discussed how the design framework supports that during the design of an innovation both producers and the market impose definitions and attach meanings to it in the three stages of *creating the artefact, constructing the* user and *catching the consumer.* The last is the focus of my enquiry. It involves the processes that promote the artefact - marketing, advertising, the media, retailing etc. - so that consumers are encouraged to purchase it. The two approaches of diffusion, with its emphasis on processes that communicate an innovation to society, and design, are used together to show how the '*consumer was caught*' and provide an account of the meanings, perceptions and understandings of DTV that originally circulated in the marketplace and before DTV was put in use. These meanings emerged during the *representation moment* of the cultural circuit, which is the focus of this investigation. This is the moment when the meaning of a cultural good is produced through symbolism and language. The symbolism and language of marketing and adverts are

analysed in order to show how, in a specific time and place, DTV's image was manufactured and sold to potential audiences and how meaning around DTV was constructed in the process.

Objectives

The analysis performed is used to complement the other methods and offers an account of the representation and design aspects of DTV to match and add to the findings derived from the moment of consumption and of the survey and the interviews. Similar to Goggin (2006), who examines the role of design and advertising in creating a mobile culture through the case studies of Nokia and Vodafone, my account deals with the symbolic aspect of constructing a language and narrative around DTV, a DTV culture, using marketing and advertising tactics.

The ultimate drive behind any marketing strategy is to raise awareness of a new product and lead consumers to the act of purchase. My use of marketing concerns the techniques of promotion and advertising as these are reflected through mass media, Sky's promotion literature, and initiatives planned in their quarterly and annual financial results and in-house presentations. An analysis of early Sky television advertising campaigns was conducted. This analysis does not attempt to measure advertising effects on consumer choice or market behaviour but addresses questions related to communication formats, messages and meanings. It shows how the advertising communication promotes certain messages, images, shapes and concepts about the new product and draws inferences on the configured user of early DTV.

The three Sky digital major marketing campaigns analysed are:
1. The Launch campaign aired between September-December 1998.
2. The 'Digital Vision' campaign that took place between March-May 2000.
3. The 'More people going digital choose Sky' campaign that ran between March-May 2001.

The main questions asked are: what tactics did Sky employ to trumpet the qualities of its service? What inferences did Sky digital's sales tactics and image building strategies make about the medium and the user? What meanings of DTV and its users were assumed in these efforts? I focus on how Sky DTV was constructed and communicated through marketing after its launch in 1998 and in these first campaigns, and assess how they inscribed messages about Sky digital and its potential users.

These questions are addressed through a mixture of visual analysis and semiotics. Similarly to Brundson (1997), I study the visual representation of adverts as 'texts', with principles borrowed from semiology, and analyse their moving image conventions according to Berger's (1982) principles of adverts analysis. I offer a 'reading', or discourse analysis, of what DTV signified in these early promotional discourses; of how the potential user is addressed and how user and product were shaped.

In particular, my analysis is one of the narrative, symbolism and discourse entailed in the adverts and texts discussed (see: Hansen et al., 1998, pp. 130-224). It leans on semiotic concepts and techniques (i.e *signifier* shot, camera angle etc. and *signified* meaning) but focuses on the *central symbolisms* of the examined adverts or texts rather than the detailed relationships of all symbols involved to wider systems of signs. For example, in chapter 5 I emphasise those images or concepts that are key in bringing out the meaning of the advert (i.e the mini-dish, the warmth of Bob the installer, the gendered 'female' television, or the dramatic narrative of the launch campaign). As regards my analysis of adverts specifically, this also focuses on how the visual textual qualities and elements of the advertisements, both technical and symbolic (for example, the camera shots or angles, the editing and lighting, the sound and special effects or the location and setting, the colour, the objects etc.) help create the encoded meaning.[50]

Hansen et al. (1998) discuss the subjectivity entailed in narrative analysis or in the analysis of texts, images, visuals, genres and in discourse analysis. They argue that '[c]entral to the analysis of both narrative and genre is an application of the researcher's own reading, that is, not only based on formula and application of models, but largely dependent on the development of skills of description and classification' (ibid., p. 131). The analysis of discourse, narrative analysis and the analysis of visuals are interpretative and impressionistic. This applies to the work of Brunsdon (1997) on analysing television programmes and films, the work of Spiegel (1992) and her analyses of women's magazines, the work of Mackay (2007) on policy documents and government discourse on DTV, and any work related to 'readings' and 'interpretations'. My discussion of the Sky digital promotional campaigns, and also of governmental discourse, is both descriptive and, based on my interpretations, contains a degree of

---

[50] This is especially vivid in the first advert of the launch campaign discussed in chapter 5.

subjectivity. Yet this is the nature of the method. Based on the distinctions and procedures offered by semiotics and visual narrative analysis techniques, I attempt to highlight the signifying components and structures of the 'text', both pictorial/graphic and verbal, which, I believe, successfully reflect the key messages, commercial, ideological and symbolic, that were communicated to consumers by Sky (Gunter, 2000, p. 87-92).

This analysis is crucial since I contend that marketing as well as being a tool that aims to lead to a positive decision process, is a means of shaping both the product/service and the product/service provider and potentially the user. This visual interpretation and discussion sketches the main characteristics that were injected in the new medium and reveals how marketing contributed to market-driven definitions of DTV. It is important given the questions that emerge about whether the market definition complies with the household definition created through use at the moment of consumption. For example, is the intense media publicity, the advertising discourse promoting 'ideal' forms of consumption and 'proper' types of users, and the audience's excitement revealed in the fast take-up of DTV, compatible with the uses it was put to as a new medium? The consumption moment is analysed in chapters 6 and 7 making links to the meanings proposed at this representation moment.

Survey Research

At the time of research, despite industry developments, fast adoption rates and a fair amount of media interest and publicity, DTV and its audience were low on the media research agenda. Information on DTV audiences and its use was limited to market research commissioned by DTV operators or governmental organizations, which mostly was not widely available in public. I decided, therefore, to conduct a UK-wide survey in line with my theoretical framework and research goal to record and study FGDTV.

The quality of survey research and in particular the use of a larger sample – compared to that of qualitative methodologies, enables rapid collection of a large base of material, better understanding of what is 'typical' among DTV subscribers and more generalizable findings (Bryman, 1988). This FGDTV study was ground-breaking in providing information on the spread of DTV and its audience. It aimed to fill a gap in an under-developed research area by studying DTV access, mapping the FGDTV audience, charting the newly-shaped audience's demographics and patterns of ownership and use, and providing insights into the ways they consumed DTV. It was conducted relatively soon after DTV was launched and throws light on its adoption by the FGDTV audience. It provides a baseline and historical anchor for how the process of DTV developed, and how penetration and usage of DTV has changed over time and over subsequent generations of its audience.

Population

My population base was all Sky digital subscribers in Britain registered with the service from the day of its launch, 1st October 1998, to 22 August 2000 when the sample was drawn. The subscription base of Sky digital at the time was 3.8 million households.[51]

Sampling strategy and sample

The sample consisted of a UK-wide sample of 1986 Sky digital subscribers drawn using a computerized *random sampling* procedure.[52] Simple random sampling was considered the most efficient strategy because it limits non-coverage and sampling

---

[51] Figures reflect Sky digital's subscription base at 25 July 2000. BSkyB, (26 July 2000), Announced *Results for the year ended 30 June 2000.*
[52] BSkyB supplied all relevant data and information on variables such as subscribers' full names and titles, addresses and telephone numbers.

errors, allowing all registered Sky digital subscribers on 22 August 2000 to have an equal chance of selection (Dillman, 1991, pp. 227-28; Buckingham and Saunders, 2004, pp. 103-17).

Administration, mode of completion, pre-testing and design of questionnaire

A postal survey was chosen as appropriate to ensure a large response and good coverage of individual views on a wide range of issues. It was also more convenient for reasons of time and material resources. Neither face-to-face nor telephone survey was feasible because of my limited time and resources which did not allow employment of trained interviewees to help with the process. Other survey modes also have associated limitations. A face to face survey would have required a much smaller sample; a telephone survey would have required a much shorter questionnaire (Hansen et al., 1998, pp. 234-37), both aspects that would have compromised the objectives of my research.

Mail surveys, because of the lack of contact and interaction with the interviewer, are more prone to non-response and measurement error, than face-to-face or telephone surveys (Dillman, 1991, p. 228). The researcher is not available physically to explain, control or prevent non response or misunderstandings and, thus, poor responses. Since a mail survey calls for self-completion this can reduce the quality and number of responses. A pilot survey was conducted to minimize these errors. Pre-testing ensured that the survey questionnaire was clear and straightforward to complete[53] (Hansen et al., 1998).

Pretesting included 15 Sky digital subscribers/users recruited using snowball sampling with friends and acquaintances and advertising with posters at the LSE. The pilot helped identify and reduce problem areas. Clarity was improved and attempts to reduce response and measurement errors were taken in the final version of the questionnaire. The design of the questionnaire was a lengthy procedure, and was based on information collected as the pilot survey was conducted and evaluated. The aim was to construct a questionnaire that would include all relevant questions, and maximize response rates and the quality of responses (Dillman, 1991). Dillman's (1991, pp. 233-238) total design method (TDM) tips were taken into account.[54]

---

[53] See appendix 3 Pre-testing, Piloting and Questionnaire Design issues for more details.
[54] See appendix 3 on Pre-testing, Piloting and Questionnaire Design issues.

Design and objectives

The survey mirrors the diffusion's theory quantitative approach, methodologies, and commitment to generalizability but includes questions related to diffusion *and* domestication theory. Translating the theoretical concerns of both diffusion and domestication theories into survey questions, and focusing on the second and third research questions, the questionnaire can be said to follow a qualitative rationale to provide a 'narrative' of DTV adoption. It is structured in a way and based on questions aimed to reveal the 'biography' of DTV *before and after* purchase (appendix 3: Survey questionnaire). The responses to the questions about the processes preceding subscription provide inferences about the *adoption strategy* and *acquisition process*, and the responses to questions about after subscription provide information on the *use and consumption* of DTV. The survey and its topic areas focus mainly on the processes of DTV adoption, purchase-decision and use.

Indicatively, sketching a profile of FGDTV adopters is related to the theoretical assumptions of diffusion theory about the circulation of novel goods and the characteristics of adopters. The characteristics of those attracted to this particular innovation are revealed through a series of questions and variables. These concern adopters' demographics and household structure information, questions about lifestyle that reveal to what extent DTV subscribers' lives were media saturated and whether households were IT advanced/rich; questions that reveal the status of subscribers, their previous television service and information on DTV equipment ownership.

The diffusion strategies that enable information on and familiarity with the 'new' and allow people to make sense of it were pursued through questions about the diffusion and commodification process, and specifically the 'before subscription' questions. These questions enquire about initial *awareness* and *interest in* the new product; which are more popular sources of knowledge about it, market factors (advertising, etc.), or 'word of mouth'; the domestic processes/decision-making steps involved in taking up a new technology; the family dynamics involved in this decision; whether decision-making about adoption introduces 'turbulence' in the household (cross gender/generational), and reasons for subscription.

Appropriation and incorporation of the technology in the household were addressed by questions on patterns of consumption of DTV, time use and frequency of television viewing, individuals' media habits, programme and content preferences, uses of other media and, significantly, uses of interactive services.

The survey: Implementation

The survey was mailed to 1,986 people on 14th November 2000. The package contained the questionnaire, a prepaid return envelope and a personalized covering letter explaining the aims of research and asking for the subscriber's participation (appendix 3: Survey covering letter). The response after 6 weeks was 523 questionnaires. Two of these questionnaires were damaged in the post, one was incomplete because the recipient had cancelled the subscription, and two were blank because recipients did not want to participate. The 518 'usable' questionnaires represent a response rate of 26%.

A reminder was sent out to non-responders on 13th January 2001 accompanied by another copy of the questionnaire and a new personalized covering letter (appendix 3: survey reminder cover letter) to 1,463 addresses. This produced another 182 completed questionnaires all of which were usable. The usable questionnaires from both mailings totalled 700, an overall 35.25% response rate, which is a satisfactory level for a postal survey.[55]

Data entry, analysis, and quality of data

A coding scheme had been devised in line with the design of the questionnaire. This transformed the questions into a set of variables and values that could be entered into SPSS for statistical elaboration. Both descriptive and inferential statistical analysis strategies were used, in relation to the questions asked and the areas of concern reflected in the questionnaire.

Data entry suggested that the overall quality of responses was good. Apart from missing values for some demographics, which is common in such questions (Dillman, 1991), and occasional misinterpretations when respondents were asked to rank rather than tick items, most respondents had understood the questions and provided satisfactory answers. The analysis indicated the data were of sufficient quality. In the analysis stage it became clear that some questions need to be addressed using an interview which would allow additional probing. In the discussion and analysis of the survey in chapters 6 and 7 I select and focus on the most relevant questions in terms of the objectives of the research.

---

[55] This response does not allow extensive generalization to the whole population of DTV subscribers in the UK. However, the figures reported here provide indicators and outline trends, which, if interpreted with caution and in conjunction with other research and developments in the UK broadcasting context, give a reasonably balanced overview of how DTV was used in its early years.

In-depth Interviews

The quantitative part of my empirical strategy is complemented by qualitative insights gleaned from in-depth interviews with a sub-set of the original survey sample. This empirical work, corresponding to the design and domestication framework which calls for more qualitative methods of data collection, was aimed at complementing and expanding the theoretical concerns of the diffusion framework and validating the survey data. It provides insight to inform interpretation of the quantitative findings on access, adoption and use.

Given the limitation of survey research to penetrate people's attitudes and beliefs, qualitative interviews revealed adopters' understandings of DTV in a more natural setting through face-to-face interaction that allowed a more contextualized articulation of their experiences (Bryman, 1988; Flick, 1998). The semi-structured interviews helped get beneath the surface opinions of respondents and examined the multiple ways in which DTV is appropriated and used in their everyday lives.

In addition to validating, questioning and expanding the survey data, the interviews provided deeper accounts of consumption and domestication of DTV, at a different moment in time. I conducted 15 interviews[56] between January and March 2002 approximately a year after the survey. Ten to fifteen users for in-depth discussion was considered adequate given the data gleaned from the survey. The scheduling of this phase of the research a year after the survey was because of the time needed to implement the whole project, but also because it seemed interesting to examine issues that were of concern at different times and triangulate how DTV adoption and use had changed since the survey (Denzin, 1989, pp. 237-41). Of course, the time lapse between survey and interviews meant that the DTV offer had also changed which might have affected the habits and practices found by the survey. The interviews included questions about what had changed since the survey.

Objectives

These qualitative interviews allowed a more detailed examination of the responses to the questionnaire and clarified possible contradictions. I was able to enquire further into what had seemed interesting clues, and the information from the interviews added to the validity and consistency of the survey results. In an auxiliary

---

[56] Amongst these, 2 were pilots.

role the interviews complemented the survey and supported its findings. They provided more in-depth accounts of DTV consumption; also in explaining their experiences, interviewees were also probed for information of DTV domestic appreciation by other family members.

The interview design depended on and was informed by the survey design and findings. This is evident in the question guide (appendix 3) and the selection of interviewees. Additionally, the findings from the interviews were expected to drive interpretation of the survey (and vice versa). In this sense, these two methods and data sets were expected to be complementary rather than stand-alone.

Population

The population from which interviewees were selected was the 444 Sky digital subscribers who had participated in the survey and had indicated their willingness to be contacted again. They were part of the original UK-wide random sample of 1986 Sky digital subscribers selected for the survey. I decided on a geographic range of the South East of England for reasons of time and financial resources. Also, subscribers living in the South East composed more than one third of the available population and a prior comparative statistical analysis showed that this population was not significantly different from the population of 'average' Sky digital subscribers surveyed, apart from their tending to belong to IT-richer households. I decided to draw the sample from the 140 households in the South East that had participated in the survey and had agreed to a further contact.

Sampling strategy

This empirical phase did not aim to quantify and generalize, but rather to contribute to a further understanding of subscribers' actions and experiences. In this sense it did not call for systematic sampling procedures. Neither absolute representativeness nor total randomness was required. However, given the large amount of information on potential interviewees available from the survey, it was considered that a certain degree of stratification based on a number of variables relevant to the research questions would lead to a more successful pursuit of the defined objectives. It would pinpoint hypotheses and enable deeper exploration of how groups of subscribers with similar/different characteristics use DTV.

A *purposive sampling* procedure based on stratification criteria suggested by the preliminary survey analysis was seen as appropriate since it included important variables affecting adoption and use of DTV. Similar to Facer et al.'s (2003, p. 11) study, follow up exploration of these variables was considered useful given that these characteristics were already available from the survey questionnaire which was used as a sampling frame. These stratification variables were: status of subscriber (new or old to multichannel television) and household structure (with/ without children). *The status of subscriber* is defined as the television service pre-Sky digital. Two categories were used: new to multichannel television vs. old Sky analogue/multichannel customers. This distinction was expected to highlight whether Sky or other analogue multichannel subscribers who switched to digital were qualitatively different from those who had never had multichannel experience before getting DTV. For *household structure,* the broad categories of households with or without children were used. It was assumed that household structure and the presence of children has implications not only for how the new equipment is used, but also for the expectations associated with it and the reasons for adoption.

Pre-testing and piloting

The interview question guide was piloted with two Sky digital subscribers/users. These interviewees were recruited one through friends and acquaintances and the other with the use of posters at LSE (appendix 3: LSE recruitment poster). The interviewees were male, single, in their late 20s; one was 'new' to and one 'old' to multichannel television. The pilot interviews checked the clarity and relevance of questions, helped identify and clarify the main themes and categories to be explored, and refine the questions. Pre-testing acted as a preparation phase for the main interviews.

Interview structure and question guide

The fact that a survey preceded the design and conduct of interviews had implications for the selection of interviewees and the design of the interview question guide. Since the interviewees had participated in the survey and were selected based on their status as subscribers and their household composition, the question guide had to be tailored to individual circumstances. A core question guide was designed and amendments made for each case to tailor it to the interviewees' characteristics.

A non-standardized interview approach was possible because several details were already known. Informal questioning techniques based on semi-structured interviewing were considered the most appropriate mode to produce an open-ended dialogue that allowed interviewees to contemplate and reveal their subjective realities (Flick, 1998). Because knowledge gleaned from the questionnaire was to be exploited in the interviews where appropriate (to encourage, probe, challenge the interviewee) and because some questions required recall, this suggested a relatively open semi-structured interview design. The topic areas, and the related interview topic guide provided in appendix 3, served to direct me to address all relevant issues. I also allowed respondents time to think, to describe what they saw as important, and to introduce other issues.

The interviews were semi-structured but used an indicative topic guide to questions that reflected the main research framework and objectives. The discussion revolved mostly around the following key topic areas and themes that the preliminary survey analysis and the pilot interviews identified as important.

Daily Life
Questions about daily life, free time, habits and leisure activities.
Television viewing/ (Media and everyday life)
Questions about subscriber's and family's media use, and relation to domestic routines.
Initiation to DTV / (Reasons for take-up)
Questions about associated benefits, needs, hopes and expectations, role of advertising/promotion, role of friends/relatives with DTV, (dis)satisfaction with previous service, family negotiations over company/package selection.
Analogue vs. digital (Continuity/change)
Comparison with old analogue service. Questions about differences in uses, habits, perceptions.
Familiarization
Questions/reflections about early experience with DTV, early use, changes of use (time, content, preferences).
Interactivity
Use of interactive services, perceptions and comparison between internet/PC and interactivity on television, changes they would like to interactive services.
Computers and IT
Questions about technology equipment owned, attitudes to technology, digital divide.

Future

Future of television. Discussion on switch-off and end of analogue broadcasting.

These themes address questions related to the second and third research questions, most of which were also addressed in the survey. They are linked to the theoretical concern of domestication theory of how a new product is used and consumed. Addressing the complexities of household consumption and use of media technologies these themes highlight the importance of newness and change. How is newness evaluated and negotiated? Does it promote or hinder use? The above themes and questions also relate to diffusion of innovations' concern with people accepting and gaining familiarity with the new. How do perceptions of newness affect use (also over time)? The interview themes and questions and some of the questions in the survey, are related also to the theoretical orientation of Williams (1974; 1990) and cultural studies that television is not just a technology but a cultural form, deeply rooted in the context, practices and realities of everyday life. Such questions seek to contribute to our knowledge of whether DTV as a new product is consumed in novel ways or is a *continuatio*n of the past experience; they explore *past experience* and *habit* and their role in new media use and uncover how consumers perceive the novelty of DTV and why.

Getting access

The first stage of ensuring access to interviewees involved a covering letter (appendix 3: Covering letter for interviews) to the 140 households in the interview sample which was sent in mid-January 2002. This reminded them about the questionnaire they had completed a year ago and thanked them for their participation. It provided information on the second stage of the research and the interviews. It described my plan to contact some of them in about a week's time to get their answer about further involvement.

I contacted 50 households by phone. This stage did not go as expected. Getting in touch with respondents was difficult and, in most cases, required several calls before I reached the individual. I took notes of each telephone conversation so I could follow up with arrangements. In order to get their agreement to be interviewed, I had to be politely formal and also sound friendly/approachable. I needed to be able to counter doubts about being interviewed. I had to avoid being intrusive and maintain a balance

between being persistent and giving up, be sensitive to remarks that meant respondents were stalling and had no desire to participate further. Several of the respondents who I had to make several attempts to get in touch with declined my request. Others, mostly those who were easy to reach, agreed and an appointment for the interview was arranged; some said they were too busy; a few were never contacted because the phone number had changed or was wrong, they were away or simply did not answer the phone. I finally got 13 people to agree to an interview.

The large negative response meant that the stratification scheme did not work well. The intention was to have a similar number of cases for each stratification variable. However, I soon realized that this would not be possible and the stratification scheme would not work. I made every effort to ensure there would be at least one interviewee for each case of the stratification variables and that I included as wide a range of DTV consumers of different characteristics as possible. Ultimately, the numbers were not balanced and the sample included some interviewees who were new to multichannel television and some who were familiar with it, some with children and few without.

Conducting the interviews

The 13 interviews with Sky digital subscribers in the South East of England were conducted during January-March 2002.[57] Interviews lasted between 60 and 90 minutes. They were all friendly and relaxed and were arranged on a day and at a time and place to suit the interviewee. Most took place in interviewees' homes, two were at their places of work and two came to the LSE for the interview.[58] Three of the interviews were conducted in London; the remainder were in Harrow, Upminster, Southend on Sea, Luton, Royston, Walmer, Esher, Yateley, Maidenbower, and Romford. The information from these 13 interviews *and* the 2 pilot interviewed comprise my qualitative data. A detailed 'interview index' and an outline of basic facts about these 15 interviewees is given in appendix 3 (table 3.2).

---

[57] 8 were old subscribers to Sky analogue, 4 new to multichannel, and 1 new but had cancelled his subscription by the time of the interview; 6 were female and 7 male, 5 were in their 30s (ranging from 30 to 37 years), 5 in their 40s (between 41 and 46) and 3 were in their 50s (52 to 57 years). Most had children, 8 were married and living with partners and children, 2 were married and living with partners with children who had left home, 1 was single and lived alone, 1 was single and lived with her child, 1 was divorced and lived with her child.
[58] Plus the two pilots.

All interviews were tape recorded and fully transcribed. Professional codes of conduct for carrying out research were generally followed (Kirsch, 1999, pp. 41-42, in Plummer, 2001, p. 227). Personal judgment was used about strict adherence to these standard procedures/requirements. All interviewees were ensured confidentiality and offered anonymity. I explained the aims of research, how their views would be used, and that they were free to withdraw if and when they wished. I stressed that it was my research and not research commissioned by BSkyB. No consent forms were used because verbal informed consent was considered adequate.

Analysis and critique

The purpose of the interviews and the fact that they were part of an auxiliary triangulation scheme aimed at enhancing and supporting the survey data, led the analysis. Interviews were analysed thematically based on the categories and themes - deriving from survey insights - identified above and developed during the design of the question guide, the pilot and as data were being collected. Both deductive and inductive approaches were followed. In the empirical chapters (chapters 6 and 7) the interview themes and question areas discussed are those whose significance was also highlighted by the survey findings.

Similar to the survey, my qualitative empirical approach does not ignore the inadequacies associated with qualitative research. Using a data set based on only 15 users questions the safe applicability of results. A bigger sample might have produced additional or different insights; different interviewees might have changed the analysis. All qualitative research is open to the risk of subjectivity which unavoidably affects all phases: the interviewing process, the nature and sequence of questions, the analysis of data. However, triangulation remedies the weaknesses of individual methods. The survey provided objective data and generalizability of findings; whilst the supporting and complementary interviews enabled individual subjectivities and states of mind to be expressed.

Conclusion

This chapter discussed the rationale and methodological framework of my research. I discussed the strategies of methodological triangulation and mixed methodologies and highlighted some of the benefits of combining qualitative and quantitative research. I show that, despite epistemological differences, these methodologies are not mutually exclusive, but can be complementary through strategies such as triangulation, complementarity or auxiliary forms of methods combination, such as in this research. The multi-method projects of Livingstone and Bovill (1999) and Facer et al., (2003) are discussed in this context and are examples from which such efforts may depart, and which my study relates to.

I considered how mixed theories call for mixed methods and how innovations diffusion drawing on domestication theory can be compatible with integrating their corresponding methodologies. This is not to say that quantitative research is incompatible with domestication theory. On the contrary, surveys can complement consumption theory enquiries.

I introduced my research questions and explained my mixed methods research design which consists of an analysis of the adverts and marketing discourses of early Sky digital promotional campaigns, of a UK-wide survey research and qualitative interviews with Sky digital users. The rationale, preparation and implementation of each phase of data collection were discussed.

Following this discussion of the methods for the empirical data collection and analysis for this research I next described how they link to the empirical chapters that follow. The circuit of culture provides the model on which these following chapters are structured. After positioning DTV in a historical trajectory with a review of the technology forms that preceded it in chapter 4 'From analogue to digital', the Representation moment of the cultural circuit is discussed in chapter 5. Chapters 6 and 7 take us to the consumption moment and present findings from both the survey and in-depth interviews on the FGDTV audience and its use of DTV.

Chapter 4: From Analogue to Digital: A Historical Overview of British Broadcasting

Introduction

This chapter reviews the history and evolution of UK broadcasting and portrays the changes and developments in the media landscape, the broadcast technology and audiences' adoption and response to successive innovations. It offers a historical account of the diffusion of broadcasting forms from analogue to digital. It links past and future and provides the background to and historical framework for understanding the transition from the analogue to the digital broadcasting era, and the empirical research on FGDTV in the following chapters.

As is supported by both the circuit of culture and the design and domestication framework, and the underlying emphasis on the *evolution* and *continuity* of cultural and media forms, DTV is not cut off from any past or context. Contextualising DTV as a technology and a broadcasting system requires discussion of those broadcasting forms that preceded it in order to understand the environment within which it emerged and its influences. Starting from free-to-air television and public service broadcasting (PSB), the discussion moves to what can be considered the antecedents to DTV: subscription or analogue multichannel television, both cable and satellite. This chapter also reviews the advent and adoption of analogue era media technologies, such as teletext, the VCR, the games-console and the personal computer. The effect of one new medium on the uses or take-up of another and the interactions within this emerging media ecosystem are discussed. The final part of this chapter examines DTV and operators, such as Sky digital, and competition, to the present. It highlights early government discourse on 'digital Britain' and plans for analogue signal switch-off.

Drawing on secondary sources, the chapter sets the scene for the discussion of the development and diffusion of DTV and positioning of audiences through British broadcasting history and as technology progressed, despite the limited sources on audiences' adoption of the technology, and the 'invisibility' of the audience throughout history (Reiner et. al., 2001). It argues that the development and *evolution* of British

analogue television and television-related equipment is rooted in and shaped by a series of technological advancements and industry developments associated with the production moment, government decisions and regulatory policies related to production and regulation, and cultural influences related predominately to consumption (du Gay et al., 1997). This chapter highlights the most significant of these. Thus, this historical overview exemplifies the extensive project of the development and *evolution* of a broadcasting system which was shaped by several parameters and factors. The system has been and is socially shaped and shaping, similar to the development and evolution of the new medium of DTV. The whole broadcasting system can be understood in terms of a circuit of culture (du Gay et al., 1997) formed by the contribution of various moments and processes, all interrelated and inextricably linked. Within this complex circuit of factors intervening in the formation of the UK broadcasting system, key instances and elements that help us understand the diffusion of television innovations and the concurrent changing audiences are brought forward.

I first discuss the very early days of television and the efforts to develop Britain's public service broadcaster despite technical and financial difficulties. The period from 1934 when the plans to launch UK television were formulated, to 1955 when commercial television was created is being discussed, with the timid but steady growth of the BBC and of the television audience being presented. The first section focuses on 1955 to 1982 when the PSB system was enriched and audiences began to be offered more choice and the alternative of commercial stations. It highlights the regulatory efforts to sustain the BBC's prominence in the competitive environment that was emerging. This is followed by a discussion of the developments of cable and satellite television during the 1980s and 1990s. Audiences' first encounters with more choice and thematic content are discussed as is the diffusion of innovations such as the VCR, the home computer, games consoles and others. The development of the multichannel industry is presented and the limited adoption of cable television and relative success of satellite emphasized. I show that cable and satellite technologies did not live up to the exaggerated expectations of media and policy discourse surrounding them. The last section in this chapter discusses the digital era, the advent of the internet and of DTV, the undisputed early success of Sky digital, overall DTV developments in the UK, and the rhetoric and policy frameworks shaping them.

Production, Regulation and Consumption Moments of the Early Television Era

Public Service Broadcasting and the BBC monopoly

The British Broadcasting Company (BBC), the cornerstone of British broadcasting, developed in the early twentieth century as a national organization responsible for radio broadcasting. The British Broadcasting Company (BBC) was created as a 'public corporation' (Crisell, 2006, p. 19). Even though early BBC was a private company (a consortium of wireless manufacturers), it carried no advertising and was funded by a licence fee. It soon established its *public service remit* under the direction of John Reith: to be universal in content, to target every UK citizen, to offer information, education and entertainment in high quality programmes, as well as mixed programming and a wide range of genres catering to a variety of tastes and interests and minority audiences. In 1927 from a private company the BBC became a public *corporation* (British Broadcasting Corporation), but retained its monopoly.

In 1934, in response to developments in television technology especially in the US, Japan, Russia, Germany and France, which had begun to experiment with television broadcasting, the British government appointed the Selsdon Committee to evaluate how television services could be fostered in the UK (Briggs, 1965). The BBC, the public service radio broadcaster, was chosen as the corporation to accommodate the new medium of television. On 2 November 1936, the BBC Television Service was launched and was the first television service in the world to provide regular transmissions (Briggs, 1965; Crisell, 2006). It broadcast from Alexandra Palace in North London and its reception range was confined to the London area.[59]

Public acceptance was fairly slow and television adoption rates were unimpressive. High costs, technical difficulties, limited range, small number of hours of programming and general scepticism towards the new medium initially delayed take-up. However, in 1937 when the Marconi system was chosen over the Baird system, as the official system of British broadcasting, 'programme production became simplified and standards of presentation showed substantial improvements' (Vahimagi, 1994, p. 2). Studio broadcasts, films and live programmes comprised the early BBC schedule.

---

[59] TV reception gradually spread to other parts of the country after 17 September 1949 (see: www.terramedia.co.uk/media/change/early_tv_auiences.htm).

Slowly, understanding spread that this was a new *entertainment* medium, different from the cinema or the theatre. The public broadcaster improved its programming and its technical abilities in preparation for its first major outside broadcast, the Coronation of King George VI on 12 May 1937. Despite the price of television sets falling in the lead up to the coronation, sales 'increased only slowly. About 400 had been sold by end of January 1937; at the end of the year the figure was estimated at just over 2,000' (Briggs, 1965, p. 611).[60] Nevertheless, it is estimated that some 10,000 viewers watched the ceremony (Vahimagi, 1994, p. 2), a response that encouraged the BBC to continue pioneering and improving its programming and engineering.

The next years were difficult, with poor take-up because of high cost, antagonism from 'older' media and cultural industries such as the press, cinema and theatres which saw television as a threat and refused to sell their content, the high cost of television production, and a certain snobbery towards the new pictorial medium even within the ranks of the BBC, which treated television as complementary to the radio. The Second World War led to the shutdown of the service[61] (Galperin, 2004), until it was 'saved by the queen'.[62]

It was coverage of the Coronation of Elizabeth II in 1953 'that prompted the wider public to transfer its allegiance from radio to the newer medium causing a boom in the sale of television sets' (Crisell, 2006, p. 22). The coronation became a media event that was seen on television by over half the nation and was the first time that the television audience had surpassed the radio listening audience. The 1953 coronation was a landmark in television 'mass' take-up.[63] Adoption rates, as BFI numbers show, rose significantly in anticipation of the big event and 'in March 1953 figures for combined sound and television licenses were given as 2,142,452 compared with

---

[60] Figures cited vary and should be treated with some caution. The National media museum's 'TV Chronology' notes that at the time 9,000 television sets were sold in the London area (www.nationalmediamuseum.org.uk/pdfs/TVchronolgy.pdf).
[61] The television service was suspended on 1 September 1939 and recommenced on 7 June 1946 after the end of the war (Galperin, 2004).
[62] In 1939, before the wartime shutdown of the television service, National media museum's 'TV Chronology' and http://www.terramedia.co.uk/media/change/tv_receiver_prices.htm estimate that around 20,000-25,000 television sets were in use; BFI's estimates is 11,000 (Vahimagi, 1994, p. 3). Post war statistics show the early television audience was predominantly middle class and around 35,000 television sets had been sold by the end of 1947, reaching around 134,000 by the end of 1948 (see: http://www.terramedia.co.uk/media/change/radio_and_tv_takeup.htm) or 54,000 according to BFI (Vahimagi, 1994, p. 16).
[63] Since 1949, a number of new transmitters had opened in the Midlands, North of England, and Scotland, which expanded geographical television reception coverage and the potential television audience (Vahimagi, 1994).

1,457,000 a year previously' (Vahimagi, 1994, p. 27). For the BBC this occasion was challenging and very successful and pushed it to develop its technical skills and resources further. The outside broadcast lasted seven hours, and large television screens were installed in public places (churches, halls, cinemas, hospitals etc.) so that those without a television at home could watch. The advancements in technology allowed the coronation to attract an international audience: it was watched in the UK, France, Belgium, Holland and West Germany (ibid., p. 28).

Television's popularity and take-up were growing. In 1954, a total of 3.25 million television licences had been sold (Emmett, 1956, p. 286)[64] and by the end of 1955 'the television public in the United Kingdom included 40 per cent, of all adults' (ibid., p. 306). The composition of the television audience had changed significantly from the up-market public of the early post-war era and was driven by a majority from lower income groups. The novelty and popularity of the new medium were having an effect on audience habits and patterns of radio listening. The radio, which was deeply embedded in domestic entertainment culture, began to lose ground. It was estimated that in 1954 media habits had started to change significantly with audiences spending much more time viewing television than listening to the radio. As Emmett (1956) highlights, in households with both media, people preferred viewing television to listening to radio. BBC data show that 'between 1949/50 and 1953/54 the amount of listening when television was being broadcast fell by 30 per cent…[and] interestingly, UK cinema admissions fell by only seven per cent during that period'.[65]

Soon after this boom in sales of television sets and rise in television adoption levels, discussions began about the need for commercial television and the breakup of the BBC's monopoly. Arguments against the monopoly held that it effectively eliminated choice, that the BBC was not able to exploit the new medium further and that lack of competition had made the BBC arrogant and patronizing (Crisell, 2006). Added to this was post-war economic development which had led to higher television set sales and an emerging view of television as a potential platform for advertising. The result, despite strong opposition, was the establishment of British *commercial television* and its launch as Independent Television (ITV) on 22 September 1955. The Conservative government's Television Act of 1954 officially sanctioned the creation of commercial television in the UK; however, under strict rules which prevented

---

[64] See also http://www.terramedia.co.uk/media/change/early_tv_audiences.htm.
[65] In http://www.terramedia.co.uk/media/change/shift_from_radio_to_TV.htm

straightforward competition with the BBC (Galperin, 2004). This development signalled the beginning of a gradual expansion in the television channels and programmes available to the public, which, after deregulation in the 1980s, continues up to the present.

PSB and duopoly: Towards further commercialization

ITV was set up as a network of franchise areas within the UK. It was a commercial monopoly under the control of the public Independent Television Authority (ITA) and had to conform to the PSB remit. ITV was obliged to carry quality programmes targeted to a wide range of viewers and was allowed to carry spot advertising only in the form of commercial breaks. However, in an effort to gain audience appeal and advertising, ITV devoted most of its air-time to popular programmes (Briggs, 1965). Audiences turned to ITV; which offered a schedule of genres that provided an alluring alternative to the BBC. It broadcast news programmes with an emphasis on the *visual*, and films, quiz-shows and soap operas.

Audiences welcomed the additions to their daily television menus brought and, in the second half of the 1950s, in households with both BBC and ITV, the latter emerged as predominant. At the time it was estimated that 'ITV was capturing between 60 and 80 per cent of the audience' (Crisell, 2006, p. 25). Similarly, research from the Survey of Listening and Viewing attests to the gradual prevalence of ITV over the BBC:

> In the early weeks of the new service…the B.B.C. audience amongst viewers who could receive both normally exceeded that of the I.T.A., but by the end of the year the reverse was true, the ratio of the average evening audiences in the last few weeks of the year being estimated at B.B.C. 49: I.T.A. 51. (Emmett, 1956, p. 304)

In March 1957, according to BFI, the total adult television audience in the country was around 19.5 million. Those with access to both channels spent one-third of their viewing time watching BBC and two-thirds watching ITV programmes (Vahimagi, 1994, p. 29).

The success of television soon established it as a daily habit and an integral part of the everyday life of viewers. The new status quo that television was creating was slowly drawing attention to its impact on audiences and on daily routines. W.A. Belson, a psychologist working in the BBC, conducted research in 1959 to investigate the effect

of television on family behaviour. He concluded that television viewing was working towards bringing the family together as a unit but also causing disruption to family life. His findings have a surprising resonance with the ritual of viewing in the 1980s and 1990s.

> [M]any families hurried through meals in time for viewing, and in many cases meals were eaten while watching...Frequently people carried on with something else while viewing. In some homes children pleaded to stay up after their bedtime to view and…the wife was left to finish various jobs while the family went off to view. (Belson, 1959, cited in Vahimagi, 1994, p. 30)

In the second half of the 1950s, ITV's continuing appeal and the audience time devoted to its television viewing, questioned the legitimacy of the BBC's licence fee. The BBC tried to find ways to be more competitive without compromising its public service ethos. The Pilkington committee was appointed by the Conservative government in 1960 to assess both networks and advise on where a third channel should be assigned. The BBC argued that were it awarded the third channel it could regain some of its lost audience by incorporating programmes of wider appeal in its existing channel and using the third channel for minority programming. The Pilkington committee[66] advised that the third channel, BBC 2, should be awarded to BBC Television. Through the Television Act of 1964, government took up the committee's recommendation and awarded the new channel to BBC.

In those days the television audience had grown even more and almost 80.4% of UK households owned a television set (Mackay, 1995, p. 319). The new channel was launched in 1964 and as well as catering to the wider public, was designed to serve minority audiences. It used the advanced broadcasting system of 625 lines on UHF, as opposed to the standard of 405 lines on VHF used in Europe (Galperin, 2004, p. 152). The decision of the committee and government was aimed at ending the destabilising effect of competition created after the breakup of the BBC monopoly. As Crisell (2006, p. 26) explains, 'while maintaining its public service duties, the BBC was obliged to…widen its appeal; while continuing to attract advertisers, ITV was obliged to provide programmes of quality, range and balance'. A few years later, in December 1967, and after long debates about which system to use, the BBC started its

---

[66] The committee shared a Reithian approach to broadcasting (Briggs, 1985).

transmission in colour using the German Pal colour system. Three channels in colour were now available to the public.[67]

Around that time a new technology, frequently overlooked by later market developments, was being designed. Teletext was the first technology associated with television and allowed an alternative use of the television set. Vahimagi (1994, p. 184) explains that in 1974 the government 'authorized the BBC to start a two-year experiment, regularly transmitting live "pages" of written up-to-the-minute news and information, displayed at viewers' request on their television screen'. The CEEFAX service started on an experimental basis in September 1974 and was followed a year later by ITV's ORACLE. New television sets or external decoders were needed to access teletext. As discussed below, audiences of the time responded well to this offer and teletext was gradually incorporated into audiences' regular use of television.

The three television broadcasting stations continued to grow and compete for audience. Over time, and primarily because the BBC needed to attract audiences and confront the competition, the three channels became less distinctive in relation to their schedules. It was not until 1982 when television could be found in approximately 96.8% of households and multiple-set ownership was commonplace (Mackay, 1995, p. 319), that a new channel, Channel 4, was launched. The 1979 Conservative government placed the fourth channel under the responsibility and regulatory control of the Independent Broadcasting Authority (previously ITA) (Crisell, 2002).

Channel 4 was Britain's second independent television channel and functioned under PSB guidelines with the special role to encourage innovation and experiment and provide programmes for previously underserved minorities. It was funded by ITV regional companies and, in return, its advertising was sold to ITV regional franchises. Channel 4 did not produce its own programmes; it commissioned them from independent programme makers, which gave a boost to the industry and led to the rise of independent production companies (Crisell, 2006). Analogue national terrestrial television acquired a fifth member in 1997. The commercial broadcaster Channel 5 was launched when competition for audiences was at its peak and long after the breakup of the duopoly as a result of technological developments and the emergence of subscription multichannel television in the 1980s.

---

[67] It is claimed that the televising of the wedding between Princess Anne and Captain Mark Phillips in 1974 promoted sales of colour television sets. This was a major outside broadcast with an estimated home audience of 25 million. Television transmissions of the Queen's Silver Jubilee events in 1977 led to even greater take-up of colour television sets (Vahimagi, 1994, p. 183).

Over the years, the BBC and its charter has undergone numerous government reviews and been the subject of much public criticism and debate, but has always symbolized Britain. Most government decisions and regulatory moves, even those promoting commercial television, were aimed at strengthening the role of the BBC and safeguarding and protecting the public broadcaster against the challenges posed by technological changes and competition (Galperin, 2004). It should be noted that both the BBC and its audience's loyalty have shown a notable resilience in the face of the challenges and changes that emerged in the broadcasting sector through the years.

The Analogue Multichannel Era: Cable and Satellite Television in the Cultural Circuit Moments

In the early 1980s further developments in broadcasting technology, namely the VCR and direct transmission via satellite and cable, signalled a significant change in the television landscape in the UK. In 1983 subscription multichannel television was officially introduced with the launch of cable television. Cable and satellite technology were the conduits through which multichannel television reached the public. These new media from another era undoubtedly brought promise of change to television as an industry and as a cultural form, and to audience reception and habits. Among other things, they introduced multichannel abundance, conditional access to and charging for broadcast content, single-genre or thematic channels and increased the process of audience fragmentation.

Cable Television: Regulation, policy and rhetoric of representation

The advancements in technology that could bring such change coincided with the Conservative government's election victory in 1979. This was a decisive moment for the fortunes of broadcasting in the UK. Negrine (1985, p. 109) notes that the government's 'preference for laissez-faire market economics, denationalization… and…private entrepreneurial activity that was likely to regenerate…Britain's flagging industrial power, heralded a change in British political and economic life'. Government saw that the way to industrial growth was through the development of ICT, cable and satellite technology. The then Minister of Information Technology highlighted the government's ambitious plans and revolutionary vision saying that:

[w]e are pressing ahead very rapidly at the moment with cable television, hoping to lay down in this country…the start of a totally interactive network…Laying down cable television will be as important as the laying down of the railway network of Victorian England. (Negrine, 1985, p. 112)

The Thatcher administration's keenness to promote a strong information technology sector in Britain was coupled with the aim to 'confront a highly regulated terrestrial television sector with a lightly regulated new media one' (Galperin, 2004, p. 155), a strategy adopted later by the Major and Blair governments. This brought a shift in the ideological landscape of UK politics with state intervention, once established as beneficial, losing purchase and the philosophy of the 'minimal state' taking over (Smith, 2007, p. 48). Political priorities were the Conservatives' dissatisfaction with PSB and their intention to introduce change (Kuhn and Wheeler, 1994, p. 432; Schlesinger, 1987); the development of the television industry sector; the provision of stimuli for the growth of an electronics industry and consequent economic gain, as well as Britain's early engagement with these promising new media and taking a leading role in the information revolution.

Government rhetoric and ambition for analogue multichannel television resembles that of the digital era. Whilst promising a revolution, it was choice and more entertainment for the consumer, but mainly opportunity for producers and private enterprise that the Thatcher administration was aiming for in building the new optical fibre cable infrastructure. However, the Information Technology Advisory Panel (ITAP)[68] set up by government, recommended that cabling-up the country should be funded solely by private enterprise. According to the ITAP report (1982) broadband cable, as opposed to the limited technology of relay cable networks, would allow subscribers *access to a plethora of channels* and mean the *end of scarcity and channel austerity*. It should be noted that the initial plan was to build up cable as multipurpose networks and bring to the viewer not only a multitude of channels, but also *interactive two-way services,* such as tele-shopping, banking, etc. (Hollins, 1984). This promise was never realized and remained an ambition until the advent of DTV. As it turned out, it was not the only mismatch between early promises for a cable revolution and the established reality of cable television.

---

[68] ITAP was an expert panel set up by Thatcher in 1981 to look at and advise on IT issues. It produced a series of reports that led policy on broadcasting. The 1982 report on 'Cable Systems' was influential in the set-up of cable television sector/policy (Negrine, 1994, pp. 186-187).

The launch of cable television in 1983, following approval by the Hunt report in 1982 and the establishment of the Cable Television Authority as the instrument responsible for awarding franchises and monitoring the cable market (Negrine, 1994), was not a success. Compared with countries such as the US which had a highly developed cable industry and high penetration rates, and unlike countries such as Canada, Belgium and Holland which received programming from neighbouring countries via cable and had achieved adoption levels of 80% in the mid-1980s (Barwise and Ehrenberg, 1988, pp. 81-83), the UK was lagging.

First, the build-up of cable networks was a very expensive venture that progressed very slowly. Second, government let the market drive development, with limited intervention and economic support. Also, because of high capital cost and high taxes, investors were not enthusiastic about investing in the project, and restrictions on foreign investors 'limited the interest of American cable operators who better understood the economics and marketing of the cable business' (Galperin, 2004, p. 156). Five years after the launch of cable television only ten cable television networks were operational.

Levels of both corporate and public interest were low. Audiences were not keen to embrace the technology. Viewers were happy with the quality and variety of programmes provided by terrestrial television and were sceptical about whether more choice would mean more diversity (Crisell, 2006, pp. 31-32). On top of the terrestrial channels' programme variety and quality already on offer, good over-air reception of conventional television channels and prior ownership of VCRs can be considered additional reasons for cable television's limited appeal (Barwise and Ehrenberg, 1988, p. 83).

The media ecology and other new media of the time

Just before the launch of cable television, new media such as the home computer, video games consoles and the VCR were attracting audience attention and time, and provided new alternative uses for the television set. The timing and early success of these media are among the reasons why the novelty of cable television did not appeal to the British public in a big way at the time. The VCR showed very fast adoption rates in the UK compared to the rest of the world (Barwise and Ehrenberg, 1988, p. 79). Around 20% of UK homes owned a VCR by 1983, reaching 35%-50% by

1985 (Hollins, 1984, p. 293), and 71.5% of the country's households by 1992 (Vahimagi, 1994, p. 255). Mackay (1995, p. 323) confirms the early popularity of the VCR noting that its fast diffusion exceeded most predictions about its penetration and take-up levels and that in 1992 the VCR had reached over two thirds of British households.[69]

Additionally, as regards ownership and use of new media of the 1980s, when cable television was introduced in 1983, around 1.5 million households had access to a teletext television set and another 1.5 million owned a home computer (Hollins, 1984, pp. 293-294). The penetration of television sets with teletext service access started to grow soon after the launch of the service. According to Greenberg (1989, p. 88) 'in 1979, the first year after teletext sets began being manufactured…there were 40,000 sets in use; this tripled the next year, doubled again in both 1981 and 1982', eventually reaching 3 million in 1986. Despite being a technology that did not attract sufficient academic interest, teletext's take-up in the UK was fast and in fact 'phenomenal... compared to videotext development in either the United Kingdom or the United States' (ibid.).

Around 3 million households had access to teletext through their television set in 1986, which was one in seven homes, and a year later this was estimated to be one in five households in the UK (ibid., p. 90). The main attraction of teletext was that it was convenient to use and informative and provided access to weather and travel updates, television, news, sport. It was fast and involved no extra cost.

The home computer, in its early days, achieved much lower penetration rates, reaching 12.6% of households in 1985. It initially was used for education purposes and playing games (Mackay, 1995, p. 330). After 1988, growth slowed further with a shift in the use of the computer to more business and work related purposes and an increase in the use of games-consoles and TV-linked games machines for playing electronic games instead. Such video and computer games were a massive hit (ibid., p. 335-36). All figures and adoption rates discussed in the above review show that the domestic sphere was changing significantly at the time in terms of the technology available in the household, as were media habits. At the time that cable services were rolled out Hollins (1984, p. 294) noted that:

---

[69] Mackay gives slightly different figures concerning VCR ownership compared to Vahimagi. He notes also that by 1991 the VCR had reached one in three households worldwide and the UK had the second highest penetration rates in the world.

certainly those less optimistic about cable's chances have suggested that, in video, viewers have found an alternative distribution technology both to the cinema and to cable and one with its own unique advantages, whilst teletext, home computers and videogames are providing all the text information and other enhanced services which most households are likely to use.

This observation was only speculative, but adoption figures soon confirmed that these new media, and the added cost of a cable television subscription, were factors that played at least some role in audience reaction to cable television.[70]

Early adoption and consumption of cable television

Figures show[71] that by 1986 cable television was taken up by 20,000 households that is, only 0.1% of UK television households.[72] In 1988 only around 12% of British households were reached by cable (Goodwin, 1998, in Galperin 2004, p. 156) and around 1% had taken up a cable television subscription (Barwise and Ehrenberg, 1988, p. 83). Three years later, and as cable networks expanded to reach more geographical areas, take-up and adoption rates were still low. In 1991 just 267,000 households (1.2% of the TV-household population) held a subscription to a cable network.[73] Low subscription levels were related also to the slow build-up of cable networks and the low numbers of homes passed by cable. However, cable television take-up remained slow and took almost a decade to reach approximately one million households, in 1994.[74]

Cabling up the country did not turn out to be a very successful project, and cable television proved only a marginally profitable industry. The finance and complicating technical details were perhaps the main reasons; laissez-faire regulation and lack of public funding were others. Audiences appeared reluctant to adopt, with the advent of other new television related media, such as the VCR and games-consoles contributing to this reluctance. Lastly was the slow but steady success of satellite, considered then to be the rival platform.

---

[70] However, early adopters tended to live in media rich households, and early surveys suggest that VCR owners were twice as likely to take up cable than those who did not have a VCR (Hollins, 1984, p. 294). There are no extensive historical accounts of media diffusion and adoption at that time; thus, we can mostly speculate about the impact of one technology on the adoption of the other.
[71] Available figures are scarce, as is the relevant literature, and vary. The numbers presented here should be taken as indications of general trends.
[72] http://www.terramedia.co.uk/reference/statistics/television/cable_tv_subscribers_2.htm
[73] http://www.terramedia.co.uk/reference/statistics/television/cable_tv_subscribers_2.htm
[74] http://www.terramedia.co.uk/reference/statistics/television/cable_tv_subscribers_2.htm

Satellite Television - The market, the regulation

Satellite television was a bigger success and could be accessed in two ways: via cable and via direct broadcasting by satellite (DBS).[75] In 1984, the satellite service Sky Channel, owned by Rupert Murdoch's News International, began to provide content to cable television networks in the UK. Concurrently, the government was planning to launch a DBS service. Government again made it clear that the satellite project would be based solely on private funding and invited the IBA and BBC to express interest. The BBC found the idea of delivering a satellite service appealing, but could not find funding or financial partners. So the government advertised the satellite service through IBA, which, in its turn, awarded it to British Satellite Broadcasting (BSB) in December 1986 (Collins, 1992). But while BSB - a consortium of Granada and Anglia TV, the Virgin Group, Amstrad and Pearson - was preparing to launch its satellite service and facing setbacks because of the MAC format it was required to follow, it was Murdoch's Sky TV that, in February 1989, launched the first DBS service in the country (Crisell, 2002).

Sky TV had four channels focusing on thematic content including news (Sky News), entertainment game shows (Sky Channel), movies (Sky Films Channel) and sports (Eurosport) (Vahimagi, 1994, p. 256). It was transmitted through the Astra satellite in Luxemburg and thus was outside the jurisdiction of British regulation. BSB launched its service in April 1990 with five thematic channels including Galaxy (entertainment channel), Power Station (music channel), Now Channel (news magazine), Movie Channel and Sports Channel, but by that time Sky had already secured over 600,000 subscribers and contracts with Hollywood movie content providers (Crisell, 1997, p. 222; Goodwin, 1998, p. 51); others report higher subscription levels reaching one million subscribers in November 1989 (Vahimagi, 1994, p. 256).

An additional factor in the early success of Sky over BSB was that it opted for the convenient PAL broadcasting system, which required viewers to simply purchase a set top box and satellite dish. BSB was obliged by government to adopt the MAC system of transmission which was more complicated. Not only did it require a 'squarial', a squared antenna, but also a new television receiver (Chippendale and

---

[75] Collins (1992, p. 55) explains that the two technologies and industries, cable and satellite, were interdependent as regards content since each can deliver the services/channels of the other.

Franks, 1991), making it a far less popular choice for consumers. In 1990 Sky acquired BSB, which had failed to handle the cost and competition, and was re-launched in April 1991 as British Sky Broadcasting (BSkyB).[76] In this way, Murdoch retained control of the new company and managed to control the country's single satellite television service along with five newspapers (Vahimagi, 1994, p. 324).

Many critics of the Thatcher government objected to the merger, arguing that it breached UK cross-media ownership laws (Smith, 2007, p. 65). Officials from the IBA were not consulted about the merger and strongly resented this.[77] Also, Sky, which was transmitted from European Astra frequencies, was not considered an 'official domestic service'. However, many analysts point out that it was common knowledge that 'Prime Minister Thatcher and her cabinet certainly had no particular interest in preventing Murdoch – whose newspapers were generally supportive of the administration – from controlling what was seen as a highly risky business venture' (Galperin, 2004, p. 158).[78] BSkyB was already part of British broadcasting history.

The content and audience

Murdoch's BSkyB introduced thematic content and single-genre channels and it was soon realized that certain genres were particularly attractive. In an effort to gain subscribers it began to compete in earnest with terrestrial and cable networks to secure the broadcasting rights to major sporting events and Hollywood blockbuster movies; a tactic it has continued. This BSkyB practice was received with hostility by a large part of the national audience which, since BSkyB's launch had seen favourite sports events, such as Premier Football league, FA Cup matches, Rugby league and others, disappearing from terrestrial channels (Vahimagi, 1994, p. 324). However it achieved a slow but steady increase in subscriptions for BSkyB. Crisell (2006, p. 34) notes that by 1996 'over four million homes carried satellite dishes and one viewer in five could watch Sky's numerous channels, either directly or via cable'. In total, by that time, 30%

---

[76] In the period before the merger both companies were doing badly. As Crisell (1997, p. 222) records, only 1 in 15 television households had taken out a satellite subscription and the companies were making a loss.

[77] http://terramedia.co.uk/reference/documents/BSB.htm

[78] After the merger, the European Commission found Sky's contract with EBU granting exclusive rights to specific sport events, illegal, and this led the company to abandon the Eurosport channel and launch its own Sky Sports channel (Vahimagi, 1994, p. 324).

of UK television households had converted to analogue multichannel television, either cable or satellite (Goodwin, 1998, p. 156).[79]

BSkyB developed into a very profitable organization that steadily increased its number of subscribers. In the end, it could be said that it helped the government's plans for commercialization of the television sector. The cable industry also gained from BSkyB's success. Smith (2007, p. 68) suggests that 'by the mid-1990s, mainly by relaying BSkyB channels, the number of cable subscribers had increased to around one million'. Both satellite and cable television adoption rates in the mid-1990s were catching up, but were relatively small overall according to experts, and took quite some time to achieve. However it should be noted that during the late 1980s and early 1990s, and because of the introduction of cable and satellite television, the UK broadcasting sector became far more competitive. The BBC was facing huge competition for viewers, but although government advocated a free market, it was keen that quality standards for the public service broadcaster were preserved (Crisell, 2002).

I suggest that despite technology development, government support, and industry efforts to promote and establish analogue multichannel television in the 1980s and 1990s the audience of the time played a key role in developments. The limited references to audience research of the time show that viewers in the early 1980s were not asking for and were not ready to join a multichannel revolution. Adoption rates grew slowly and it took 10 years for viewers to get more familiar with channel choice and diversity. It is interesting that despite the changes and range of broadcast technologies and channels available to the audience at the time, the national terrestrial channels continued to be preferred by the majority of viewers. It is indicative that in 1997 more than 75% of British viewing was on BBC and ITV, and even in multichannel households the terrestrial channels were the most watched (Goodwin, 1998, pp. 156-157). Seaton (1997, pp. 203-204) refers to privately commissioned research which shows that consumers watched the BBC and other terrestrial channels more than satellite stations. The latter were frequently found to be repetitive and limited. Interestingly, the longevity of terrestrial channels and the loyalty of audiences to them persist in the digital broadcasting environment, as is discussed in chapters 6 and 7.

---

[79] Gripsrud (2004, p. 219) gives slightly lower take-up rates noting that in 1997 'in the United Kingdom, 10 percent of households were cabled and 18 percent had satellite TV'.

The Digital Era

The Internet
Its early days, adoption and use

In the mid-1990s, a few years before DTV was introduced, the home internet started to become available in UK households. A new medium, till then available at the work place and used predominately as a tool for administration, communication and work related purposes, the internet at that time attempted to enter our everyday lives and practices. Initially, it had a low uptake (as graph 6.2, appendix 6 suggests) mainly because of the cost (for a computer but also for a dial-up connection), because of the expertise required for its use and the need for a PC and computer skills, but also because it was then considered a specialist technology for specific non mainstream purposes. Soon however and by the late 1990s it became more widespread and gained impressive momentum reaching 12% of UK households in January 1999, 25% in May 2000, 28% in August 2000 and 46% in February 2002.[80]

The demographic profile of internet adopters and its typical trickling down pattern are discussed in chapter 6. Here it is more interesting to note that in late 1990s and early 2000s internet use was more of a weekly, rather than daily, practice and, given that PC ownership was not high (graph 6.2, appendix 6), mostly taking place not only from home, but also from friends' houses, from the workplace or university, from public libraries and internet cafes.[81] As early as 2000, much as today, internet adopters were using the internet for a wide range of online activities; mostly for emails (69%) and for general information browsing or surfing (64%).[82] The National Statistics Internet access bulletin (September 2000, p. 4) reports that at the time '[s]even in ten (70%) adults who had used the internet used it to find information about goods or services and just over a quarter (28%) reported using the internet to buy such goods or services'.

---

[80] Oftel. (2000c). *Consumers Use Of Internet, Summary of Oftel Residential Survey.* August, 2000; Oftel, (2001). *Consumers Use Of Internet, Summary of Oftel Residential Survey.* February, 2001; and T-learning Study, (2000). *News Learning With Video-Rich Multimedia.* October 2000, www.pjb.co.uk/t-learning/lvmoct00.htm.

[81] National Statistics (2000). *First Release: Internet Access.* Bulletin from the July 2000 National Statistics Omnibus Survey. Issued by National Statistics, London.

[82] National Statistics (2000). *First Release: Internet Access.* Bulletin from the July 2000 National Statistics Omnibus Survey. Issued by National Statistics, London.

Since these early days the internet has grown impressively both in adoption rates and crucially in technology development, becoming an integral part of many people's lives (Ofcom, 2011). The internet, its adoption and demographics, its development and relation to DTV are discussed in chapters 6, 7 and 8. For now, I return to DTV and its introduction to discuss early policy and the state of the market in DTV's early days.

Digital Television
Policy, regulation and the market

UK policy on DTV was laid down in the 1995 White Paper on Digital Terrestrial Broadcasting and the development of this new medium has been embraced enthusiastically by government since then. In the early days, the government adopted a competition based model of regulation (Smith, 2007) also given the successful early launch of Sky digital and the establishment of BSkyB as the most successful pay television (pay TV) broadcaster and leader in pay DTV market. Government efforts to promote digital terrestrial television (DTT) in order to facilitate switch-off of the analogue spectrum was, at that point, left to the private sector (ONdigital and then ITV digital) to carry forward, as it turned out unsuccessfully. This way the government and regulators were also aiming for the establishment of a pay TV broadcaster rival to BSkyB.

Since 1999, industry developments and government decisions have changed the British digital landscape significantly. Sky digital switched off its analogue service in September 2001[83] and is still a key player in the DTV market. Telewest was acquired by NTL in 2005 and its mother company, Flextech, functions, as one of its programme providers since. In 2008, NTL was re-launched as Virgin Media.

The DTT provider, ONdigital, was re-launched as ITV digital and due to severe technical problems, debt, and low levels of subscriptions shut down in May 2002. ITV digital's collapse can be considered proof that early (1998-2002) DTV policy was ineffective because competition from Sky digital was too severe for the DTT provider. According to some analysts this early policy only served to 'reinforce BSkyB's domination of UK pay TV…Put simply, the fate of DTT in the UK was dictated more by BSkyB, than by the UK government' (Smith, 2007, pp. 99-100). However the collapse of ITV digital signalled the creation of a free-to-air digital terrestrial service,

---

[83] BSkyB, (2005). *Sky Fact Book*, p. 46.

with its licence granted to a consortium of BBC, BSkyB and the transmitter operator Crown Castle which launched a subscription free service in October 2002. This development was seen as strengthening the role of the BBC and supporting government plans for the switch-off of analogue signals. Since its launch Freeview has been a 'core element of the government's strategy to achieve analogue switch-off' (Mackay, 2007, p. 35). It was believed that a free-to-view service would attract sceptical viewers who were not willing to pay for DTV, and would therefore help create a fully digital Britain. This policy plan was an attempt to remedy the early delay of regulators to give DTT the extra push needed to compete with Sky (Smith, 2007). Indeed, Freeview has been a great success and at the end of 2006 had achieved around 7 million sales (Ofcom, 2006, Q3, p. 4) and advanced the switch-off plans; subscriptions went up to 9.3 million by September 2008 (Ofcom, 2008, Q3, p. 5). By summer of 2010 Freeview was available to 10 million households (Ofcom, 2010b Q3, p. 2). Concerning overall DTV take-up, in September 2006 DTV adoption in the UK was 73.3% (over 18.5 million households), in 2008, 88% of the country's households had DTV and in 2010 penetration was 92.2% (Ofcom, 2010a, p. 1).

The Sky digital offer in the production moment

This section focuses on the production moment of early DTV and offers a brief overview of the evolution of DTV technology and the advances that took place after Sky digital was launched. It provides a history of how DTV software has changed, and how the product has been enriched and thus shaped on the way. This overview includes the advances and changes in both the software and take-up rates since launch and up to September 2001 when the analogue service was shut down and Sky became fully digital.[84]

When Sky digital was launched in October 1998 it was a multichannel service. It offered approximately 140 channels of news, sport, documentaries, movies and entertainment, packed in different bundles - the so-called channel packages - starting from the most simple to the most complicated combination and priced accordingly.[85] Radio was available on DTV, initially with 11 radio stations broadcasting in digital quality. It was four months later, in February 1999, that the first extra feature was

---

[84] Appendix 5 provides more detailed calendar of Sky digital developments and improvements; Appendix 1 provides a review of channels, content, pricing and technology features of early Sky digital.
[85] BSkyB, (12 August 1998). Announced *Results for the year ended 30 June 1998.*

introduced and allowed subscribers to order PPV programmes. In August 1999, the celebrated service of Sky Sports Extra channel, Sky Sports Active (SSA) was introduced, offering the world's first interactive football coverage and allowing sports viewers to view match statistics, information and watch the match using different camera angles.[86] The enhanced PPV service was launched in September 1999, providing a choice of up to 25 films per night, with a frequency of every 15 minutes. Even though Sky digital in its early days was similar to multichannel television but with improved visual and sound quality, it was the UK's first DTV service and offered a far bigger choice of channels than its competitor ONdigital. Take-up was very promising and in early May 1999 Sky digital was confirmed as the world's fastest digital launch with 551,000 sales just six months after launch.[87]

It was a year later that the interactive television service 'Open.…' was launched. 'Open.…' belonged to British interactive Broadcasting (BiB), a joint venture between HSBC, Matsushita, BT and BSkyB. The agreement with BSkyB was that BiB would financially support the Free Digital Initiative and digibox subsidy offered by Sky digital, expecting to reclaim its investment through revenue from the 'Open.…' interactive services (Starks, 2007; Rose, 2000 in Wired).

From October 1999 'Open.…' offered a range of shopping, email, banking, information, games and entertainment facilities to subscribers at no extra subscription cost.[88] A few months after roll-out of interactive service, in December 1999, 'Open.…' reported 450,000 email users.[89] In March 2000 Sky had achieved impressive take-up and had a subscription base of 3.4 million.[90] In the same month the first national interactive television advert was screened via 'Open....'. Viewers could buy what they saw, as it was advertised on their television screen.[91] Two months after, 'Open.…' claimed to have over 750,000 registered email users making it one of the top five providers of electronic mail in the UK. It reported 10.2% of homes with access to 'Open.…' making a purchase since the launch. June 2000 saw another innovation; Sky News launched the world's first interactive television news service, 'Sky News Active', which provided an enhanced teletext looking facility for news, current and old information, and the facility to vote from home on questions concerning current affairs

---

[86] BSkyB, (15 October 1999). Announced *Results for the three months ended 30 September 1999*.
[87] BSkyB, (5 May 1999). Announced *Third quarter results 1999*.
[88] BSkyB, (15 October 1999) Announced *Results for the three months ended 30 September 1999*.
[89] BSkyB, (9 February 2000). Announced *Results for the six months ended 31 December 1999*.
[90] BSkyB, (10 May 2000). Announced *Results for the nine months ended 31 March 2000*.
[91] BSkyB, (2005). *Sky Fact Book*.

issues.[92] In the same month BSkyB secured the rights to live FA Premier League games for a further 3 years. By mid-summer, the Sky digital subscription base reached 3.8 million and BSkyB's plans for switching off Sky analogue were moved to June 2001, six months earlier than the original planned date.[93]

The above demonstrates that Sky digital had begun to be identified as 'enhanced' or interactive television only until after its first year in the market. The second year in Sky digital's life was a year of innovation. It was the year Sky digital moved from multichannel to multiservice and produced an extended proposal of what DTV was and was expected to be long before its launch: a multichannel and multi-experience interactive television service. The enhancements continued. In October 2000 BSkyB brought the TiVo to the UK market. With this Integrated Personal Television Recorder subscribers could pause live television, replay their favourite moments instantly, and record up to 40 hours of programming without videotapes. Two months later, Sky launched digital text, which features the facility of on-screen betting, and announced that in December 2000, Sky's digital subscription base was 4.7 million and that 92% of the company's subscribers were digital.[94] In April 2001 another facility was introduced. The Personal Planner helps viewers create their own personalised television schedules. They can select their favourite programmes from the On-screen Sky Guide and create their own personal list of viewing highlights of the week. The Personal Planer takes over and switches channels automatically when a 'favourite' show is about to begin. In May 2001 there were corporate investments and BSkyB completed its the acquisition of HSBC and Matsushita shareholdings in British Interactive Broadcasting Holding Ltd (BiB the owner of 'Open….'). BSkyB's stake in BiB was then 80.1% and all interactive and online activities were later consolidated within 'Sky Interactive'.[95] The acquisition of full control of BiB/'Open….', which according to all the BSkyB announced results quoted here had been making a loss, was significant for both marketing and design purposes as will be highlighted in chapter 5. In June 2001 BBC's Wimbledon Interactive was introduced, allowing viewers to watch up to five live matches simultaneously; and another enhanced service, Big Brother Interactive, was launched on channel E4 giving viewers an additional four video streams, the ability to

---

[92] BSkyB, (26 July 2000). Announced *Results for the year ended 30 June 2000*.
[93] BSkyB, (26 July 2000). Announced *Results for the year ended 30 June 2000*.
[94] BSkyB, (7 February 2001). Announced *Results for the six months ended 31 December 2000*. This figure went up to 95% by March 2001 as confirmed by BSkyB, (9 May 2001), Announced *Results for the nine months ended 31 March 2001*.
[95] BSkyB, (9 May 2001). Announced *Results for the nine months ended 31 March 2001*.

watch near-live for nearly 20 hours daily along with the facility to register their vote through their television.[96] At that time Sky subscriptions had risen to 5.5 million and Sky digital subscribers were provided with the facility to text mobile phones through their television using a Sky remote control or keypad.[97] In September 2001, the company switched off its analogue service, because all its subscribers were digital.

Digital television and the discourse for a fully digital UK

> Our world is changing, and communications are central to this change. Digital media have revolutionised the information society. Multi-channel television will soon be available to all...High-speed phone lines give households access to a whole new range of communications services and experiences. Using their TV sets, people are able to e-mail, shop from home and devise their own personal viewing schedules. The communications revolution has arrived…We want to make sure that the UK is home to the most dynamic and competitive communications market in the world. Communications businesses already make an important contribution to both national and regional economies. We want to maintain UK's competitive advantage in the rapidly changing international marketplace. (A New Future for Communications, UK Government White Paper, 2000, pp. 1-2)

This is not a public statement from the conservative government in the analogue multichannel era, despite the similar rhetoric. It is the foreword to the White Paper policy proposal of December 2000, signed by Stephen Byers, then Secretary of State for Trade and Industry and Chris Smith, then Secretary of State for Culture, Media and Sport. This Communications White Paper was the basis for the 2003 Communications Act, and an attempt to set the agenda for the future regulation of television and especially DTV (Starks, 2007). As already mentioned, even before the launch of DTV, the government had been very supportive of initiatives that encouraged the development of DTV, advancing regulation and policy plans that would help accommodate the transition to digital broadcasting. The shutdown of analogue services was not just a UK target, but a policy promoted throughout the E.U.

Apart from disagreements and disputes on different aspects of the regulation framework among MPs, political parties, regulatory bodies and DTV hardware and software providers, the state was more or less united, eager and determined to drive forward the take-up of DTV (ibid.). Most indicative of this determination was the UK

---

[96] BSkyB, (2001). Announced *Results for the year ended 30 June 2001*.
[97] BSkyB, (2001). Announced *Results for the year ended 30 June 2001*.

government's commitment to a complete 'switchover' from analogue to digital television then set somewhere between 2006 and 2010. Although this decision raised criticism from various fronts - DTV providers, software developers, media analysts - as being both deterministic and infeasible,[98] government gave assurances that the analogue terrestrial signals would not be switched off until 'everyone who can currently get the main public service broadcasting channels in analogue form can receive them on digital systems; switching to digital is an affordable option for the vast majority of people; as a target indicator of affordability, 95 per cent of consumers have access to digital equipment'(Communications White Paper, 2000). Since then, estimates, forecasts, industry development, market plans and public policy have changed and a firm switchover schedule has been set for 2012. Freeview, the terrestrial free-to-view provider, has been a key player in this new strategy. Behind the UK state's keenness on DTV take-up, apart from revitalizing the electronic industry are the gains related to the frequency spectrum that will be freed up by turning off analogue signals. The frequency spectrum, a 'public good' administered by the government in power, has increasingly become more and more crowded since 1990, especially after European deregulation and the opening up of frequencies to commercial broadcasters. But the use of compression technology allows digital broadcasting to maximize use of the bandwidth and transmit more channels in the spectrum space occupied by a single analogue channel. This greater distribution capacity and more effective use of the spectrum will allow the government to use the 'released' spectrum frequencies for the development of mobile and other communications and provide the state with the source of additional revenue and opportunities for investment (Galperin, 2004).

Support for the development of DTV by the government, however, does not construct DTV as *only* a vehicle for economic prosperity. The rhetoric used by it carries some connotations of DTV being a source of material profit, through the use of a *constructed common 'we'* - the UK - and the employment of Enlightenment values of

---

[98] The main argument against the UK's original plan was that setting a date for switchover was premature and would have the undesirable effect of forcing consumers to buy new equipment and subscriptions. Market research predicted the desired percentage of transition (95%) the government set would not have been achieved by the date set. Before the introduction of Freeview as the policy vehicle that would drive switchover, an ITC and Oftel estimation ('The availability, affordability and accessibility of Digital Television' report, November 2000) estimated that market developments could drive the UK digital penetration to between 55% and 79% by 2006. Research from the Consumers' Association (2001) suggested that by 2006 only 50% of homes in the UK would be digital, while Optimedia (2001) (in Mediaweek, http://www.mediaweek.co.uk/news/507180/TV-ads-future/?DCMP=ILC-SEARCH) forecast that 56.6% of UK homes would have DTV by 2005.

progress, development and competition. DTV symbolizes progress and the collective effort of the UK to become a leader in the communications revolution ('We want to make sure…the UK is home to the most dynamic… communications market in the world. We want to maintain UK's competitive advantage in the rapidly changing international marketplace'). At the same time, it symbolizes change and people's ability to adapt to change ('Our world is changing.... Multi-channel television will soon be available to all') and thus be modern and progressive. Change is linked directly to progress and newness ('revolution'). Change is a positive thing. DTV is a symbol for the future.

Also, the DTV policy discourse since 1995, as Mackay (2007, p. 36) confirms 'is congruent with the technological determinism, optimism and mythology of active consumers that characterises broader debates about new media'. The rhetoric of modernity and progress is invoked in the case of DTV, as it was invoked during the introduction of cable and satellite by the Thatcher administration. However, the examination of DTV's early use shows that take-up of DTV might have been fast but that not all its features were appreciated. Those related to interactivity did not attract early audiences. I show below that despite the hopes and expectations invested in the immediately transformative power (Curran, 2009) of this new medium - and in those media that preceded it - the reality did not live up to them.

Evolution and Continuity

By going through broadcasting history, this chapter demonstrates the crucial role of regulation and policy in the formation of the British broadcasting system since the birth of television, and as the necessary enabling structure for the later development of DTV. This chapter has stressed that UK governments consistently promoted new broadcasting and other technologies, through regulation and representation, in an effort to achieve economic growth and a leading position for the country in the *technology revolution* of each time. The introduction of DTV is positioned in history and has been shown to be part of and linked to particular reforms introduced long before its emergence; namely those proposed by the 1979 Conservative government.

This underlines the *continuity* in the evolution of broadcasting and between the analogue and digital worlds. Government's expectations and rhetoric with each introduction of a new television technology, though historically specific, are very

similar, and the audience appears to be caught between loyalty to the BBC and terrestrial broadcasters on the one hand and the attraction afforded by the expanded choice provided by multichannel television on the other. This overview of broadcasting and media history also shows how Rupert Murdoch, a key figure in the digital era, became a key player in British broadcasting with the cable and satellite television endeavour of the 1980s.

Most importantly, through this historical account the chapter helps to demystify the 'new' and suggests that early DTV and some of the new facilities it offered and the uses it allowed, were a successful *continuation and expansion* of older technological forms already accessible to the audience in the analogue multichannel era. It points to the fact that there is continuity in both technological invention and innovation (Rosenberg, 1994), and in terms of actual use and consumption (see chapters 6, 7). It is clear that the later digital audience was already accustomed to a multichannel world through the training provided by cable and satellite television.

I show that the diffusion process of analogue multichannel television was quite different to that of DTV and much slower. However, satellite analogue diffusion in particular provided the bedrock for the take-up of digital to flourish in the late 1990s and first years of the 2000s. Gripsrud (2004, p. 215) notes about digitization that, 'in many ways [it] could rather be described as a technological renewal that to some extent enhances the use of already existing possibilities'. He, like millions of people getting hundreds of channels as satellite DTV subscribers, had been able to access these channels through an analogue dish since the late 1980s and early 1990s. After the critical analysis and discussion on diffusion and adoption data provided in the section on cable and satellite television, we can better understand how the diffusion of DTV was different to analogue multichannel; this was fast and audiences were ready for it. The prior experience and *familiarization* with analogue multichannel television (either through subscription or through circulating ideas and associated understandings), meant audiences were prepared for the multichannel explosion DTV offered. This chapter highlights audiences' *persisting habits* and behaviour *concerning broadcasting screen media* such as television, and that the audience gets *trained and skilled*, through use and through an environment of constant development of technological innovations, into deciding which ones to accept.

I have shown that the design, production and development, regulatory policy, adoption, and consumption of new technologies in successive eras were *path dependent*

(Rosenberg, 1994). As discussed in chapter 2, the diffusion and domestication of broadcasting media forms is an on-going process. Thus, it carries the experience of consumption, production and marketing in a *cumulative* fashion such that the past is always influencing the future.

Conclusion

This chapter has provided a historical overview of British broadcasting. It tells the story of the shaping of the television sector, and of other new media of the time, by technological, government, policy and cultural (audience) influences, up to the introduction of DTV and its early take-up.

It positions the development of DTV in Britain in a context of a continuous effort by successive governments to promote new media and television technologies to boost the electronics industry and market, and push Britain to the forefront of the information technology revolution (whether cable, satellite or digital). In relation to policy, it has been argued that the development of DTV was part of the changes that began with the Thatcher reforms and the introduction of cable and satellite television. Since the Thatcher administration of 1979 these efforts were pushed forward consistently and this has continued and led to the creation of a very competitive and commercial television sector that government policy failed to manage in the period 1998-2002, and up to the creation of Freeview (Smith, 2007; Galperin, 2004; Bretas, 2002).

This chapter demonstrated how the development of DTV in Britain must be understood in the context of the policy measures and political decisions taken to safeguard and protect or, more recently, to redefine the role of the BBC in light of the digital era and the challenges posed by BSkyB. The introduction of Freeview, as the DTT platform to enable the analogue switch-off, is a major indicator of how well the BBC is sheltered, but is also a significant development that influenced the further growth and take-up of DTV and made the analogue switch-off a feasible project (Mackay, 2007; Starks, 2007).

I have stressed that, as with policy - which is a struggle between tight state control on the one hand and deregulation on the other - audiences are caught between

loyalty to the BBC and terrestrial television, and a gradually developing attraction to the choice offered by new television technologies.

By reviewing the development of British television since its birth and the diffusion of other television related media the chapter signals how audiences changed over the years. The mass audience of PSB, turned to a fragmented yet selective audience in the analogue multichannel era, to the active user of the VCR and the computer and then to the interactive user of DTV.

The chapter also highlighted that the introduction of DTV has to be understood within a certain *continuity* not only of policy, but also of production and the technological broadcasting forms that preceded it, and of consumption and audience practices. Not only did the Thatcher reforms, with the introduction of cable and satellite television, bring the analogue and digital worlds closer, they provided the audience with the familiarity and knowledge of multichannel television and practices it would need in the digital era. In this sense the continuity between the 'old' and the 'new' was emphasized.

Finally, concerning innovation and new technologies, I contend that the user through the socialization process and relationships developed with older technologies (with similarities in terms of content, dissemination process or technological framework etc. to the new) has acquired the skills and understanding to accept the new. This, along with the direction of this prior experience are examined further in the next chapters. Whether prior experience with multichannel television played a role in the take-up and use of multichannel DTV and encouraged or prevented users from using interactive services are questions addressed in chapters 6 and 7.

The successful and fast take-up of DTV in its early years in the UK owes a lot to the technology which offered an attractive set of features; it owes a lot also to private enterprise and Sky digital for aggressive marketing that provided DTV with momentum and pushed up adoption rates up; it owes a lot to the switch-off policy and regulation for the establishment of Freeview as a subscription free alternative. However, most of all perhaps, this fast take-up owes a lot to the history of broadcasting in the UK. The technologies, policies, regulations and audience practices and habits that were already established and have been described briefly here, and the failures and successes, provided the 'channels' through which state and industry and audience were ready to receive and further develop television in the digital era.

Chapter 5: Representing DTV - The Early Marketing and Design of Sky digital

Introduction

This chapter looks at the representation moment and design of DTV. It focuses on the processes used to introduce Sky digital to the public by analysing the mechanisms used to advertise it and promote it in the British market following its launch in October 1998. This chapter adopts cultural circuit principles and a social constructivist approach to technology to show how a new technology acquires an identity before it is purchased, enters the household and is put in use. I examine the practice of representation through advertising and the process of design (Silverstone and Haddon, 1996) and the 'catching the consumer' stage. I discuss the rhetoric and discourse in the early days of DTV and the marketing tactics driving the rhetoric and adoption of the product for domestic use.

I analyse particular representations of the early Sky digital advertising campaigns and look at 'the advertising texts which played such a crucial role in fixing the meaning and image' (du Gay et al. 1997, p. 4) of DTV in its early days. These meanings are established and circulate through representation; they are 'cultural meanings' that say something about both our culture and society and the role of DTV in them (du Gay et al., 1997, Goggin, 2006). In so doing I identify mechanisms through which producers and marketing specialists create and try to sell a new product and the ways in which they contribute to shaping its meaning.

The focus of this chapter is representation. I analyse the discourse on Sky digital television contained in Sky's marketing, advertising and corporate documents such as announced annual reports, financial results and in-house presentations, corporate speeches, and commercial flyers promoting the sale of Sky digital. Drawing on Hall's (1997) discussion of semiotic and discursive approaches to representation and taking du Gay's et al. (1997) analysis of Sony Walkman adverts as a methodological model of examination, I discuss particular television adverts and show the meaning that emerged

about DTV and the user.[99] These adverts are treated as 'texts' and conventions from semiotics are used to guide analysis of their representations (Berger, 1982, Leiss, 1986). The symbolism and language of corporate speak and promotional material is analysed along similar lines. I address the first research question posed in this thesis by showing how DTV entered the market and was promoted to potential users, through a 'reading' of what DTV signified in its early days. Given that representation works through identification and in investigating how product and potential users were addressed, the moment of identity also enters the discussion (Woodward, 1997). Chapter 5 provides a narrative of this process of marketing and promotion of Sky digital from its launch up to 2001 - its earliest days. Representation and meaning are not static, but the early images and meanings created seem significant in terms of the future evolution of a product.

Overall then, this chapter examines how a new product was presented to the public via marketing and advertising, and how and what meaning and discourse developed around it. It discusses DTV's textuality and the meanings it proposes before take-up and reveals how DTV's definition and identity emerged in production and in the marketplace. It examines more the symbolic rather than the technical aspects of DTV, addressing parts of the design process and the 'catching the consumer' phase through advertising and marketing. Chapter 5 does not provide an exhaustive exploration of all issues involved in design and representation and I do not discuss technology innovation and development, or the organizational and corporate issues related to design and 'creating the artefact'; this would require ethnographic accounts and observation of the design process or interviewing marketing specialists and designers. Rather, I focus on specific adverts and the marketing rhetoric in the early days, and provide a reading of this type of representation and of the hardware proposition of the then new medium of DTV.

In chapter 4, following discussion of the *evolutionary* nature of the creation of the Sky brand through an analysis of the history of Sky digital and its predecessor Sky analogue, I highlighted how the legacy of BSkyB influenced the design and corporate image of Sky digital. For BSkyB, Sky analogue was a springboard; it was both a financial (turning their analogue subscribers digital) and a symbolic asset. No brand is empty of meanings (du Gay et al., 1997), and Sky carried meaning. In its

---

[99] The work of Brunsdon and her analysis of television programmes and films (Brunsdon, 1997) was also influential as a model.

marketing and for a part of the audience, Sky analogue meant innovation, entertainment and choice. Sky digital was a continuation of the achievements of Sky analogue. It was a natural expansion of Sky's commitment to serve the needs of consumers, to offer more alternatives, to be innovative and pioneering. Sky digital's marketing material claimed it was keeping up the good work done by Sky analogue work – but providing something more and better.

In what follows, I discuss the construction and communication of Sky digital through hardware, marketing and advertising, from its launch up to 2001.[100] I begin by analysing the aesthetics of the hardware and what they tell us about the product and its potential uses/users. Chapter 4 contextualized the design of Sky DTV by describing how the product was developed and changed; here, I discuss how the technology text for DTV was developed, how it was shaped during promotion in the process and the kinds of users and uses it proposed. I discuss how the marketing and advertising changed over time revealing Sky digital's corporate philosophy, and examine inscribed users, target audience and meanings of early DTV generally. In so doing, I try to show how and why the chain of promoting factors intervened in the new medium, inscribed it with meaning, and shaped its character to generate a producer/market driven definition of DTV. I discuss also why this definition emerged.

I discuss the particular 'definition' of DTV and its emergence based on a number of historical, sociological, technical and technological, market and legal dimensions, all of which played a role in constructing and shaping its meaning. I show that, although it might seem (pre)determined, this early meaning of DTV was socially constructed. Such conclusion and the interaction of such dimensions demonstrate that in the case of DTV, the drawing of diffusion approach on social shaping/domestication perspectives provides a valuable contextualization of how and why the spread of a technology takes place.

---

[100] My informants registered with the service by 22 August 2000 so that, at the time of the survey, they had watched the launch campaign in 1998-1999 and the March/May 2000 'Digital Vision' campaign. At the time of the in-depth interviews in March 2001 very few interviewees had seen the newly launched 2001 campaign.

Creating the Artefact: Hardware Aesthetics 'by design'

In the context of government support discussed in chapter 3 and the attempt to equate DTV with progress and novelty, BSkyB, after years of effort to develop the appropriate technology and hardware, became the first broadcaster to introduce DTV in the UK. In October 1998 this new equipment was ready for domestic use. It consisted generally of a set top box, needed to convert the analogue signal into digital format to allow consumers to receive the data through their analogue television sets, a dedicated remote control and a satellite dish. How does the design of this hardware inscribe meaning in terms of both medium and user? What kind of a user does it propose? How does it negotiate the tension between the functional and symbolic, the old and the new?

At an aesthetic level, it seems the new medium was constructed through a double manifestation: a *conservative* one, that allowed consumers to use their old televisions connected to digital set top boxes, which, in the case of satellite transmission were complemented by modern mini-dishes; and a more *progressive* one that required a new widescreen television set called a digital integrated widescreen television, which, at the time, was quite expensive and thus less popular. From October 1999 when 'Open….' interactive services were rolled out, both solutions could be complemented by a high-tech keypad, allowing more convenient use of email than the digital remote control. From October 2000, the hardware complex could be connected to the TiVo, the enhanced personal video recorder.

Although this cluster of technological equipment sounds impressive and complicated, DTV, in its basic hardware proposition, was quite straightforward. It consisted of a conventional television set, a box that looked like a VCR or the decoder used by analogue multichannel households, a second remote similar to the analogue television controller but with a few more buttons, and a satellite dish similar to those employed by multichannel houses, but smaller. The additional gadgets were similarly straightforward. Although plugging a key pad into the television set was novel, the keypad looked like the keyboard of a PC and the TiVo looked similar to a VCR or DVD player.

It can be argued that Sky DTV equipment was constructed as a combination of old and new. As Silverstone and Haddon (1996, p. 48) note 'technologies...at the point at which they become objects of mass consumption, have to be designed as domestic objects, mediating in their aesthetic the familiar and the strange, desire and unease,

which all new technologies respectively embody and stimulate'. The Sky digital hardware was an attempt to balance the tension between the familiar and the strange. It was presented as aesthetically *improved* rather than being a completely unique looking piece of equipment.

The software is usually the element that possesses higher degrees of newness compared to the hardware. Something that looks familiar and easily reflects they ways it can be used is more likely to be taken up. For people other than 'techies' or technophiles who are attracted to any kind of weird looking objects, the interface is usually just the means to enable immersion into the mystique of the technology, the software, but it must be inviting and not intimidating. This is not to underrate the aesthetic importance and symbolism of any new technological equipment or artefact. As Mansell (1996, p. 23) explains, design can serve as a marker of distinction, it 'can be conceived as an *active* process of marking out or indicating by a sign or symbol'.

However, as Forty's (1986) description of the design history of the radio tells us, technologies in their early stages, adopt a design that focuses mainly on the functional rather than the aesthetic component. This also applies to the case of the design of DTV equipment. The emphasis in this stage of DTV's development quite evidently was on the software. Not that a lot has changed concerning the basic hardware proposition; nowadays the equipment is simply more modern looking, slimmer, less bulky. However, integrated television sets are much more common in users' living rooms.

Nevertheless, the connection of the 'new' with the 'old' in the design of Sky DTV equipment and its symbolism are important; especially in the early stage when 'first impressions' were being established. The friendly and somewhat conventional Sky digital interface suggests that the DTV user did not need to be a techno-freak in order to take it up and use it. It was constructed as an approachable, easy to use piece of equipment intended for the average person.

Yet, at the same time, DTV hardware was arranged so as to guarantee to its adopters participation in a new culture. The new look of the dish, the colourful extra buttons on the modern designed remote control, the fancy keypad, their combination as a set of gadgets one must possess in order to receive DTV, all at the same time, suggested an inscribed user who was relatively forward-looking and technologically minded. The twofold nature of the inscribed user is, I would suggest, a golden mean intended to capture the target audience made up of old Sky analogue subscribers (or cable subscribers) who wanted proof that Sky digital was something more than their

previous service, and new to multichannel television consumers who needed not to be threatened by complicated or unusual looking new equipment.

I would propose, therefore, that the aesthetics of Sky DTV's hardware suggested a struggle between conservatism and avant-garde. Although it is perhaps a truism to say that these sets of boxes ultimately were serving simply as carriers of information and communication, it should be remembered also the 'boxes' themselves are carriers of cultural codes. For example, much has been said about the culture of the satellite dish. It was perceived, as mentioned previously, as a symbol of BSkyB's working class subscription base and, at the same time, also a sign of nouveau riche people who wanted to flaunt their latest audiovisual possessions. Whether this image was justified is questionable: after all, the only way to receive satellite multichannel television was through the means of a satellite dish which had to be installed on the outside of the house. Nevertheless, the dish has had negative connotations since its first appearances on UK houses and has deterred people who were distinguishing themselves qualitatively from other satellite dish owners, from taking up the satellite service (Brunsdon, 1997, Silverstone, 1991).

Importantly however, the digital satellite dish differs from the analogue one. Sky created a much smaller dish to complement DTV equipment, which it called the 'mini-dish', and which not only reflected the technological trend towards miniaturization, but also that the design of DTV incorporated feedback from the domestication or non-domestication of analogue satellite television. Maybe this aesthetic improvement was enabled by technology evolution, but this change suggested a qualitative change in inscribed users' characteristics. The artefact still, unavoidably perhaps, indicates its distinctive standing and signals the owner's participation in the digital age, but does so in a relatively more subtle and sophisticated manner.

This section suggests that the hardware necessary for Sky digital reception constructed users at the interface between the old and the new, the familiar and the strange, as both traditional and forward looking, 'exhibitionist' and 'classy'. Perhaps these 'tensions' were 'intentional', as Sky left the hardware proposition 'open' to different users' interpretations. However, as my further analysis proposes, these tensions were also a manifestation of the hybrid nature of the new medium and the state at the time of the delivering company, which, similar to its configured users, was still 'in transit'.

Marketing and Advertising 'by design'

In this section, I assess the meanings and messages about Sky digital and its users that were encoded by its marketing and advertising. I also highlight the changes in the service, and developments in the production environment and corporate planning targets. Chapter 4 provided an overview of the evolution of digital technology, and all the advancements that took place after Sky digital's launch, in order to provide a history of how DTV software has changed, and how the product was shaped along the way. Since its launch Sky digital has continuously been renewed and its character has been forever changing. It was designed as a core service of multichannel digital quality television and was later complemented by the features of 'enhanced' television and interactivity. The continuous renewal of Sky DTV design is evident not only in software advancements and the introduction of more and improved technological facilities, but also in the continuous investment in programming and Sky digital's effort to secure the rights to major sporting events and popular and new series, to obtain licences to carry more channels and invest in an improved customers service and installation network (see appendix 5). But how was this process manifest in marketing and advertising? What tactics and rhetoric did Sky employ to declare the qualities of their service? What messages did Sky digital's sales tactics and image-building strategies entail for medium and user?

1998-1999: Sky digital. It's what your television's been crying out for

Setting up the Sky service and corporate philosophy: Content is king

In August 1998 BSkyB was occupied with ensuring its new television proposition would be ready in time for launch. The required infrastructure was in place; the joint venture that would supply Sky digital with interactive services, BiB, had been signed by BT, Midland, Matsushita and BSkyB.[101] At the time, Sky's main concern was programming. BSkyB 'Results for the year ended 30 June 1998' published in August 1998, before the launch, suggested that 'BSkyB's primary aim is to provide its customers with the best product, Hollywood's biggest movies, the latest world news, ground-breaking documentaries, unmissable sporting action and compelling TV drama'

---

[101] The plan was for BiB to start offering initial services to Sky digital at the end of 1998 but this did not materialise until October 1999.

(ibid, p. 1). It thus proceeded to invest in new programme content, which led to a rise in programme costs of 21%,[102] and in the rebranding of all Sky channels and a re-focusing of their content focus and target audiences. Although the then Chief Executive of BSkyB, Mark Booth, emphasised the importance not only of programming, but also pricing and cost by announcing that 'Sky will introduce digital television to the United Kingdom – digital services at an affordable price with programming that will appeal to everyone',[103] BSkyB's philosophy at the time was that programming was the most important value of its new television system and no matter how compelling its hardware propositions, people watch programming not technology.[104]

The launching campaign

As part of Sky's strategic marketing plan, the launch advertising campaign was designed by M&C Saatchi and Universal McCann. It consisted of four phases: the Set up campaign that ran during September 1998 and announced the advent of digital television; the Launch campaign that would run on the day of service launch and announced the arrival of Sky digital; the Features and Benefits campaign, run during November 1998, giving more detailed information about the Sky digital offering; and the pre-Christmas sales campaign aired during December 1998, focusing on the 'superior nature' - the first competitor ONdigital had just launched in the market - and value-for-money of Sky, in a bid to drive up Christmas sales.

The advertising in this momentous campaign, which had a media budget of £40 million making it the biggest campaign in BSkyB's marketing history, was carried by all the UK national media. The advertising strategy and objectives were versatile. Sky digital initially wanted to encourage and develop the awareness of the Sky digital brand and let the public know that the first digital operator was in service. Another objective was to establish and highlight Sky digital's brand values of *choice*, *control*, *quality* and *value* and inform consumers of the *new* and *multiple facilities* at their disposal. A more focused objective was to set Sky digital as the *entertainment pioneers*, promote its wide and *diverse programming,* and to market the qualities differentiating it from the competition. Lastly, Sky digital aimed at aggressive and timely promotion of its service in the pre-Christmas sales period.

---

[102] 687 million in total.
[103] BSkyB, (12 August 1998). Announced *Results for the year ended 30 June 1998*, p. 1.
[104] Or 'content is everything…our customers...buy content, not technology' as the then chief executive Tony Ball stated in the BSkyB, (1999). Announced *Annual Report*, p. 6.

The set up campaign advertisements

The Set up part of the campaign was introduced by a public announcement press advertisement at the beginning of September 1998, which explained what DTV was, informed consumers that 'Digital television is coming' and highlighted the launch date of 1 October 1998. There were also posters and press adverts. The 'set' was a domestic living-room, depicted as a dark, dim and boring place, in which frustrated televisions were spotlighted carrying glowing SOS messages 'crying out for October the 1st'. The creative idea of 'frustrated televisions' was backed by a teaser campaign of several five-second television ads. In these, television screens were lit up and shown projecting messages from these frustrated televisions to their viewers: *'I can do so much more', 'You don't appreciate me', 'I've got so much more to give', 'Why don't you give me more control?', 'Why don't you interact with me?'*.

Thus, from the outset, television sets were positioned as the main subjects in all of Sky digital launch adverts. They were depicted as live, animate, breathing and active beings with relationships with their viewers/owners, rather than lifeless, motionless, dumb and silent boxes. They were rational and emotional; frustrated because they were mistreated; aggravated because they were not allowed to reach their full potential; claiming their rights to be heard, to change and to have end put to their maltreatment. And in so doing, they revolted.

The Launch

The concept of a revolution against their pointless, routinized and monotonous relationship with viewers became the core message in the 90-second ad broadcast on the day of the launch of Sky digital, on terrestrial television and simultaneously on 25 satellite channels. This lengthy advert, which resembled a short film or documentary in its use of stylistic conventions such as pompous music, fragmented and fast cut shots, realistic special effects, but no narrative or voiceover, was the 'firework' that signalled the commencement of Sky digital services.

The film starts with a frustrated television set in a living-room claiming that *'I've got so much more to give'*. The television is trying to release itself from its socket in an effort to 'escape'. Other televisions pictured in similar gloomy and dim settings - a basement, an isolated location, a hospital, a deserted beach, a small electronics shop - are all possessed by a fury, anger and rage, in an ecstatic frenzy of trying to break free.

The hospitalized, shivering television declares on its screen that '*I want more control*', the televisions in the retailer's window demand change, the set on the beach dives into the sea, another set is shown jumping out of the window of a flat; after a while they all explode. Televisions are shown on fire, with smoke everywhere and, as the drama escalates - signified by the increased tempo and volume of the music which also becomes more dramatic - there is a huge explosion of all the television sets in the electronics shop window, and bits of televisions and glass are catapulted everywhere.

The scene then changes as the music gets softer. Thousands of televisions are shown gathered together in what seems to be an isolated location on a high cliff top, with the sea spreading beneath. The televisions, united, are slowly pacing to the cliff edge in what looks like a mass suicide. The televisions have mutinied; they have burst out of their fetters and want to put an end to their unfulfilled existence. Then suddenly we see a big white van appearing on the highway: all the televisions turn and stare. One set in turning, trips and falls over the edge, the others scream in fear, but its cord is caught up under another television set and it remains suspended, swinging in the air. Again the shot changes and the music builds to a crescendo. We see the televisions packed into the white van, relieved and murmuring in awe and delight. They are connected to Sky digital. The suspended and injured television has been rescued. The rear doors of the van close to reveal the Sky digital logo and the van with its cargo of rescued televisions drives safely away. The text '*from this day forth all televisions, great and small, will be able to reach their full potential*' appears on the shot, and the advert ends with the underlying theme '*Sky digital. It's what your television's been crying out for*'.

What is of interest in this Sky digital launch advert is that there are no clear references to the new product/service, apart only from the closing sequence where the campaign theme emerges. The narrative is built up in such a way as to project images about Sky digital, the firm. Given that this is the first ad for a new product that is supposed to be announcing it, it is rather unconventional because it does not proceed straightforwardly to introduce the product, its features or capabilities. It serves mainly to introduce the product/service *provider*. It constructs Sky digital as the ultimate saviour through a dramatic account that uses symbols and elements of agony, danger, destruction, catastrophe and which spirals and escalates until its final resolution and ultimate happy ending. The company's van emerges as the deus ex machina to rescue the disappointed televisions, carrying them into *a new world*, a world in which they will

137

be happy and able to fulfil their potential. This interpretation depicts Sky digital as a gallant and chivalrous company. The heroic Sky digital saves televisions from suicide by providing the remedy that allows them to recover and lead contented lives: the Sky digital service. At the same time, the rhetoric of the advertisement has very strong connotations with the *need of change*, the *need to break from the past*, to leave the world of conformity and subordination *and move on to a new better world*. It is either change or catastrophe. In this sense, Sky digital appears, once more, to be not only heroic but also a pioneer and an innovator. The company anticipated a catastrophe, rushed to the rescue of the televisions, and led them to the new, safe and blissful world it had created.

What is interesting also is that as in the analysis of the hardware design, the past appears in the advert. In fact the world we see is signified as being the past and the need to cut off from it is inescapable. In this case, nothing from the past is worth carrying forward to the future. There is no worthwhile legacy apart, perhaps, from televisions' strength and courage to resist. Unlike in the promotional literature and the hardware design discussed, the users are indirectly constructed as having pioneering qualities. They are people who do not look back, who are not caught up between tradition and modernism. They are forward-looking, progressive, and recognize the need for change – even though, as in the case of the governmental policy literature discussed in chapter 4, the value of change is not questioned; it is accepted as inherently good and moral.

Grant McCracken (1988, p. 77) argues that:

> [a]dvertising works as a...method of meaning transfer by bridging the consumer good and a representation of the culturally constituted world together…The creative director...seeks to conjoin these two elements in such a way that the viewer/reader glimpses an essential similarity between them. When this symbolic equivalence is successfully established, the viewer/reader attributes certain properties he or she knows to exist in the culturally constituted world to the consumer good. The knowing properties of the world thus come to be resident in the unknown properties of the consumer.

In this advert the meaning transfer or 'transfer of significance' (Leiss, 1986, p. 135) from the world to the good, is attempted in reverse manner. The meaning of the inscribed world is transferred to what the good (service or provider) is not. Properties of the depicted world cannot be used to identify with the product, but only with what the product is not. Or vice versa, the product resides not in the depicted world, but in a world that is very different.

In this sense, understanding the underlying message is perhaps more difficult, but is effectively more dramatic. The advert employs significations that carry clear connotations about the world projected in the advert, a dark and ugly word of conformity, frustration, danger, revolution and destruction, but only very vague significations about what the world of Sky digital is like. The meaning related to Sky digital is made as the viewer is caught up in the dramatic narrative and stylistic conventions of the advert, and as he/she is led implicitly to attribute to the product not the values projected in the world depicted, but exactly opposite ones. I would argue that this creative construction was intentional, planned to increase the dramatic effect of the narrative and heighten the effectiveness of the advert, and suggest that this reverse meaning transfer technique was intended to make an *impression*. Adverts in key newspapers, consumer magazines and internet banners which were running concurrently, were used to project a more straightforward representation of Sky digital and its services. And a more detailed explanation of the new services was planned for the campaign that followed.

Features and Benefits campaign

This consisted of two 40-second adverts in which again televisions were the focus, but humour was a key component. Here the adverts were explicit about what Sky digital offered. The emphasis was on the choice of programmes and channels now available. The first ad unfolds with a scene in a marriage guidance consulting room where a depressed man in his 30s is getting advice from the counsellor, a woman in her 40s. '*She needs more stimulation...travel, nature, kids. It's really about quality time. Let's see what she says*' says the counsellor, looking in her file and quoting, with obvious disapproval: '*Some nights he returns home late. After some fumbling he finally turns me on. Just as I'm warming up he falls asleep*'. The shot widens to reveal the man's partner on a chair next to him, as a pink television screen saying: '*I deserve more*'. The man, overcome with guilt, turns to the television and says *'I'm sorry'*. The voiceover states that: '*Sky digital has the widest choice of channels, whatever your interests. It's what your television's been crying out for*'. The second advert, shows the television being saved by a fireman, and emphasizes control and the variety of programming, documentaries, spots, movies that are easily accessible through the EPG.

Both adverts depict televisions as human, active, emotional and still frustrated. They also project the *need for change*. But the concept of rebellion and mutiny is less

intense. The televisions, which in these ads are female, are still demanding a better life, but are doing so in more subtle ways than in the launch ad. They now know that there is a chance; there is an alternative, they just need someone to help them. Neither of the rescuers, the counsellor or the fireman, are representatives or employees of Sky digital. They are ordinary people doing their jobs. The difference in these ads is that the focal point is on the product as opposed to the company. There is a move away from the explicit conception of a heroic company that saves the televisions to a rescue achieved with the help of knowledgeable people who know that the *remedy is Sky digital*. Sky digital is the remedy because it allows more choice, provides more entertainment, enables greater control and easy access to a variety of channels, and better quality; all things that televisions have been demanding.

In the advert described above, the element of the human relations between the owner and television, symbolized as his partner, makes both television and viewer inter-dependent. It transfers responsibility for responding to the television's needs to the viewer/partner through the technique of association (Berger, 1982, p. 141), that is, through their relationship and mutual connection, by which means it transfers the needs to the viewer. The viewer needs to buy Sky digital to make the television happy, which, in turn, will make him happy. In this sense, the viewers and configured users are the ones who realize television is an indispensable and vital part of their lives, a partner, an extension of themselves. They are the ones that realize the value of modern technology and progress, the importance of choice, control and content variety as the means to satisfy their long-pending needs.

The 'needy' consumer

Concepts of need have traditionally been developed around new products, artefacts and especially new technologies. Technologies do not simply have functions; they are supposed to satisfy specific needs. At the level of product design two sets of properties are inscribed in the technology text: the user/consumer and his/her needs (Blyth, 2001). The consumer is configured as being in need. In all previous advertisements need is projected as natural and already existent and not as constructed or developed by someone or something. In Sky digital ads, people's needs are 'anticipated' and catered to. As a Sky digital promo leaflet explains *'[a]t the heart of our culture lays an uncompromising commitment to understand what people want –*

then delivering it'. Being 'visionaries' and pioneers, they can predict or foresee these needs.

In all Sky digital's adverts the concept of need is implicit, but very intense. Nobody is directly telling viewers that they need to buy Sky digital to satisfy this or that need. However, the rhetoric *suggests* that people need to buy Sky digital to satisfy their televisions – and subsequently their own needs. And the penalty for not doing so is suicide; there will be catastrophe or a break-up of their partnership. Luckily, the pioneering spirit of Sky digital has the solution. Sky digital is constructed as the company that responds to the frustrations of televisions, that reflects their needs and provides the means to satisfy them. In this sense, Sky digital is shown as fulfilling a moral duty to respond to people's needs for choice, value, quality and control (also see Blyth, 2001). The origin of these needs is not questioned. They exist and are well defined, and not created by Sky. The implicit projection of the television's needs to the viewer serves as another 'piece of evidence' that Sky does not create, but rather *responds to* pre-existing needs. The needs originally reside within the television and are cleverly transferred through the creatively devised viewer-television relationship to the consumer. In this way the concept of the existing need is separated from Sky digital and the new service 'so that "need" becomes a feature of the consumer rather than the artefact. As Blyth (2001, p. 136) notes '[a]gency is removed from the technology and given to the consumer, so that it appears that the technology has no role in creating consumers' desire for new products'

Pre-Christmas sales campaign

The final advert in the group of Sky launch campaign retains the creative focus of the humanised televisions. The tone is even less confrontational and desperate. A television is shown talking politely to its 'partner'. The following message appears, phrase by phrase, on its screen. '*Hello, me again, sorry to interrupt but I need to know where I stand apart from in the corner. Are we getting Sky digital or not? Sorry, I didn't mean to shout, it's just that Sky digital has a far wider choice of channels than anyone else. Including 21 channels other digital people can't give you, like:* (the television message is interrupted and fast shots are depicted of) *MTV, Discovery, Nickelodeon, National Geographic, not to mention the Disney channel, Animal planet, Sky Cinema, Sky Sports News. And unlike the rest Sky digital can be received all over the country. So go on, get Sky digital and let me show you what i can really do. And one last thing: You*

don't need to replace your telly. I said, you do not have to replace your telly'. And the ad ends with the logo: '*Sky digital, it's what your television's been crying out for'*.

During December 1998, Sky digital was keen to make the qualities and features of its service more evident. The narrative above is a clear infomercial, describing what Sky digital offered - including much wider geographical coverage than the then terrestrial ONdigital, why it was better than the competition, how it offered value for money, how there was no need to buy a new television set - and is a specific acknowledgment of its vast choice of, especially, entertainment channels. The focus on programming is apparent: 'People watch programming not technology'. So this advert, on the one hand, still projects Sky digital as giving people what they need, and on the other, constructs the user as the one longing for new multichannel experiences and desirous of leaving behind the limited choice of its past television environment.

Through this lengthy launch campaign and the 'promos' that were run on Sky analogue channels, Sky digital aimed to target both 'old' Sky subscribers as well as 'new to multichannel' clients. The marketing campaign was considered a success by Mark Booth, who announced on 10 February 1999 that three months after its launch 'Sky digital is off to a superb start. 350,000 customers is much better than our forecast and a terrific endorsement by consumers...Given the fast take-up rate, combined with subscriber satisfaction… we are targeting one million homes to be subscribing to Sky digital by October'.[105] The six-month announced results suggest that the strategy for the coming months would be to continue to build the digital platform by attracting both new and transition customers through continuing investment in programming, marketing and subscriber management.

Free digital initiative

By May 1999 the marketing strategy had become more aggressive and offered compelling incentives for subscription. At the end of April, just before he resigned as Chief Executive, Mark Booth announced that: 'This is a very exciting day for Sky. Our new consumer proposition will transform the Company and the entire industry. It gives customers free access to digital television, a free ISP and massively discounted

---

[105] BSkyB, (10 February 1999). Announced *Results for the six months ended 31 December 1998*, p. 2.

telephony. It removes all barriers to entry for customers. It will allow us to capitalise on the fastest launch of digital anywhere in the world'.[106]

The Sky Free Digital Initiative was announced, a package offering free digital set top boxes with a £40 installation fee, free ISP and cheap online access, as well as 40% off BT telephone calls. The offer was constructed on the basis of research suggesting that the price of the hardware was the last major obstruction for subscribers. It was communicated to the public through joint advertisements involving Sky and leading retailers such as Dixons and Currys.

The offer was a key moment in the marketing of Sky digital, and DTV in general. Sky was constructed as a technology that did not require much effort or money from the consumer. It made it easier and less expensive for reluctant consumers, and especially those without an analogue subscription to or familiarity with the Sky culture and multichannel television, to give it a try. There was a dramatic effect on take-up. Monthly demand for digiboxes increased threefold and, at the end of July 1999, the company had achieved 1.2 million sales, exceeding the 1 million target set for October of that year. It was only after introduction of this new offer that monthly demand from new customers began to outweigh demand from transition customers. The subscriber base grew more and by October 1999 was 1.8 million.

---

[106] BSkyB, (May 1999). Announced *Third quarter results 1999*, p. 2.

Year 2000: **A digital vision for everyone**

In its second year, and since October 1999, Sky digital transformed into an interactive television service with the launch of interactive features. Take-up increased to 2.6 million by February 2000. However, BSkyB continued to treat programming as its main value and turned the free digibox giveaways into a permanent marketing policy. In the May 2000 announced results, Tony Ball, the new executive officer, was applauding the company's success and leadership:

> In the past twelve months, we have attracted an additional 2.3 million subscribers to the Sky digital platform, underlining what has been the fastest digital launch by any European platform…Whilst others promise the advantages of digital delivery and interactivity, we have been delivering those benefits for a significant length of time. (Ball, 2000)[107]

However, until then, Sky digital pioneering interactive television services were not being fully exploited in terms of publicity and communication. Apart from adverts for 'Open….' interactive that were designed by BiB to promote 'Open….' as an independent service delivered through Sky digital, and Sky digital adverts that communicated the enhanced services of Sky Sports Extra and PPV, there was no joint effort by the two companies to promote their services. This was probably due to the legal structures of the two providers, and internal corporate impediments that, at the time, did not allow Sky digital to fully promote 'Open….' services.[108] The outcome was a somewhat fragmented representation of the Sky digital service in terms of its interactive features, and a heavy and continuous focus by Sky on the promotion of choice and programming; attributes that were long established as Sky's assets.

The second main Sky digital advertising effort was the 'Digital Vision' campaign of adverts shown on all media, which ran between March and May 2000. The campaign was aimed to promote viewers' increased control of their television viewing, to publicise the benefits of the service, the wide range of programming and the new technological features available, and highlighted the free minidish and digibox offer. The campaign theme was very different from the gloomy '*Sky digital. It's what your*

---

[107] In BSkyB, (10 May 2000). Announced *Results for the nine months ended 31 March 2000*, p. 1.
[108] Since the 2001 and succeeding campaigns, more adverts of 'Open….' and later Sky Active interactive services were included, as Sky was increasing its shareholdings in BiB (until it eventually took it over).

television's been crying out for'; it was positive and encouraging '*Sky. A digital vision for everyone'*. The Sky vision was now fore-grounded, but the adverts bore no relation to the gravity and pomposity of the representations in the launching campaign. These were colourful, funny, animated adverts featuring friendly cartoon characters, like Will James, a young Sky digital producer, and Bob Stevens, the installer (see appendix 5).

Here I focus on the Will James ad, since Bob Stevens, the later famous laddish technician, also features in the 2001 campaign. Will James, a nerdy looking but sympathetic Sky employee, takes us through a virtual tour in Sky World, highlighting the wide choice of quality programming. He is in a helicopter above a full stadium, '*maybe you hate football'* he says, and then jumps in a television studio '*but you love documentaries. No problem. We've got them all around the clock. That's what Sky digital is all about: more choice, more control'*. And then the Sky digital logo appears with the voiceover '*Sky a digital vision for everyone'*.

In this campaign the user is addressed as being empowered through choice, and in control. The 'vision' is for viewers to have control and be able to watch what they want when they want it. This rhetoric of empowerment is used in conjunction with the rhetoric of community that the 'digital vision *for everyone'* signifies. Sky digital was adopting the UK Government's discourse of constructing a common future for everyone, but in a manner open to three different interpretations. Firstly, the vision is axiomatically wanted by everyone: the need for more choice and control is universal. Sky digital, is again underlined as a gallant visionary that fosters everyone's need for more choice and control. Secondly, this authoritative statement, at the same time, suggests that everyone should have this vision. By suggesting it is a vision for everyone and implying that at least some people have it, it is signalling to consumers who voluntarily have excluded themselves from it that they need to emulate the others or otherwise be left out of the community. Thirdly, by projecting its vision to everyone Sky digital implies that everyone is entitled to such a vision, everyone may have it, and everyone has the right to claim it. This is an attempt to break from conformity or conventionality and pushes viewers to believe they are now able to satisfy their needs. Whatever the 'reading', Sky digital again is constructed as visionary with a mission and commitment to deliver the digital future to everyone.

2001: **More people going digital choose Sky**

In 2001 Sky digital employed another aggressive marketing strategy in an attempt to push the remaining Sky analogue subscribers to 'switch over' to digital[109] and enable it to switch off its analogue platform altogether. March 2001 saw the launch of what was probably, until that time, its most consistent campaign which ran until May 2001 across all media, targeting also new customers with the theme '*more people going digital choose Sky*'.[110] The campaign built momentum on 'Bob the Installer', and the success of the digital vision campaign. It was devised to promote Sky as the ultimate choice for DTV, emphasised the benefits and key reasons for subscription and again highlighted the free minidish and digibox offer. It was clearly aimed at family audiences and designed to encourage family decision-making.

It was the first time that all the features of Sky digital had been communicated in a holistic way across all media; this campaign consistently shows Sky as clearly multi-purposed, enhanced and interactive, not just multichannel. *Radio* messages focusing on choice and quality programming in general or individually on documentaries, movies, sports - including interactive features - as well as on value and the free digibox offer; *press* adverts about entertainment programmes, news, value and cost, but also interactive services and particularly TV-shopping, betting and games; ads in *weeklies* about kid's channels, PPV, enhanced news, sports services, as well as interactive shopping through 'Open….'; *outdoor posters* featuring the EPG, Sky Sports Active, Sky Text, Sky News Active, Sky betting, PPV, documentary and kids channels, and the free digibox offer promoted the whole array of Sky services.

The cartoon character of Bob Stevens the installer appeared in all advertisements, promoting confidence through his constant smile which signalled warmth, kindness and honesty. One of the television ads promoted the set top box offer and the switch or upgrade to Sky, another focused on choice and control, and trumpeted a variety of digital services.

---

[109] Starting in January 2001, the plan was to cease transmission of more and more channels on analogue satellite. In addition to being targeted as a special group by advertising, and being bombarded with promos showing Bob telling them to '*call now to upgrade to Sky digital*', analogue customers were receiving customized letters and information about the benefits of Sky digital and were being informed also that the channels that had been taken away from their analogue package were available in digital, and were being offered discounts to take it up (see appendix 5). The analogue service was shut down in September 2001.

[110] The same television adverts were used to target transition customers and were screened on Sky channels, but with the strapline of '*to upgrade to Sky digital call now on 08701 42 42 42*'.

Bob parks his Sky van on a suburban street. He is ready to install some new minidishes on their new homes. Whenever Bob installs a minidish he becomes emotional over the goodbyes. He gets out of the van, whistling, as he goes to the rear. He opens the back doors of the van where a group of little minidishes are jumping up and down with excitement. Bob, talks to them affectionately '*Right, it's a big day today you've all got new homes to go to*'. The minidishes get out of the van and gather round him as he says '*Now, I'm not the best at goodbyes but you're gonna give people all sorts of amazing things on their TVs....*'. As some of the minidishes slowly start heading to their new homes, he continues '*...interactive sport and a huge choice of movies. Even help them e-mail their friends*'. All the minidishes have run to their new homes. But as Bob goes back to close the doors of the van he sees a scared minidish trying to hide in the corner. '*Oh! You can't stay in there...*' says Bob as he tenderly picks the dish up and says to it '*...because you're going to give this family something really important – you're going to entertain them*'. The shy minidish leaves Bob's arms and heads towards its new home and its family of four, the parents and two kids, who come out of the house to welcome it. Bob waves a farewell to the minidishes. The voiceover says '*You see, that's why more people going digital choose Sky.*'

As in the digital vision campaign, the personification of Sky digital by the friendly face of Bob serves to construct Sky digital as a friendly, caring and emotional company. At the same time it constructs Sky DTV service as imbued with these virtues, by humanizing the minidishes. The minidishes - symbols of the service and the company - are depicted as devoted and with strong bonds with their carers. They have the ability to make their carers/owners happy, witness Bob's sadness at being separated from them and the new families' welcomes. Their internal qualities carry the promise that they will be both devoted to and will make their new owners happy; properties that are thus attached to both the Sky digital service and company. Bob's big-heartedness and sacrifice in letting his minidishes go is representative of a selfless and generous company, while the minidishes' courageous break off from Bob reveals the service's sense of purpose in fulfilling the company's vision.

Bob's speech reflects the qualities and features of Sky digital: a versatile and multipurpose service that allows people to receive interactive sports, choose from a variety of movies and even email their friends, through their televisions. This is the first time Sky digital is configured in television adverts as an all-round service. Previously,

Sky predominately promoted itself as a pioneer in television entertainment. This is mainly revealed in its variety of quality programming and plethora of channels. But in this Bob advert choice and control have new connotations, as does entertainment. Bob's final phrase '*...you're going to entertain them*' summarizes the task of the minidish, which will be achieved through a variety of ways, not just programmes and channels, but also via interactivity, emails and '*all sorts of amazing things*'. Choice, control and entertainment are related to Sky digital's ability to entertain the household through both multichannelling and interactivity. Sky digital in this example incorporates the interactive component of its service within its image.

The hybrid nature of the medium and its encompassing of both 'old/improved' (multichannel) and 'new/unfamiliar' services appears to have promoted the development of a one-sided design in the many cases where Sky digital was equated with multichannel, or an imbalanced design in the cases where its interactive component was the focus of only a small and fragmented part of its image construction. Two and a half years into its life, and one and a half years after the launch of 'Open….' interactivity, Sky digital attempted to construct its identity as a whole. This is the moment when Sky digital's design started to attain a more focused character. It is the first time that we see clear references to and representations of the inscribed user in a Sky digital advert: the traditional nuclear family of four. It was not surprising that Sky digital was promoted as a family service, but with this campaign the images become more fixed. The family is configured as an empowered unit through the choice and control they can achieve via Sky. At the same time they are configured as modern, independent and individual. Sky digital offers sports and interactivity for dad, entertainment programming and interactive shopping for mum, kids' channels and interactive games for the children, etc. Although these activities may appear to be traditional, the images are dressed up with users' uptake of a new meaning of entertainment; entertainment through viewing or through interactivity. The users are progressive because they have realized that both entertainment and television have changed. Television, for them, can be a banking or a shopping tool, a portal to information services, an interaction medium, a multichannel toy and thus has acquired a new and now touchable identity. However, programming and choice continued to be the key asset stressed as superior even to the new features.

I would suggest that it was through this campaign that the design of Sky digital and its inscribed user started to take shape. In constructing them, Sky digital began to break with its past and its soon to be discontinued analogue service since most analogue customers had gone digital by that time. Symbols and connections with the past had been, until then, prevalent in its advertising and positioning of the service and users at the interface between past and future. Nevertheless, a sign of the past, the minidish, was also the co-protagonist in this landmark campaign. How did this symbol, which carried several negative connotations, come to be so arrogantly posed in all adverts and media? The minidish represents exactly this move from the past, not as a violent break off but rather as a continuation or a bridge that carries us smoothly from the past and the old, to the future and new. By making it an animate, emotional and loyal little creature the advert is trying not only to reveal its new sympathetic face and attributes, but also to mollify and release the dish from the criticisms it has attracted. Picturing what clearly looks like a wealthy, happy family welcoming the minidish with excitement to their front door signifies that it is a changed, new and improved dish that has little connection with its predecessors. In this way Sky digital was signalling another move away from the past by targeting more affluent social classes than the ones it traditionally attracted and inscribing them in the technology text, and also establishing the minidish as a symbol of newness.

A 'not so new' new medium?

Concerning the hybridity of DTV and its design as a *new/innovative* or *novel* technology, Colin Campbell (1992, p. 52) suggests three different ways in which the term new can be used: '[t]here is, first, the new as the fresh or newly created; second, the new as the improved or innovative; and third, the new as the unfamiliar or novel' Elaborating the use of the term he indicates that 'new' as 'fresh' is juxtaposed to 'old as used or worn out' and argues that 'new' in this sense 'does not...imply anything novel or significantly different from what went before' (Campbell, 1992, p. 53). In the second use of the term, new is a manifestation of the product's technical capabilities and efficiency and in this sense new 'is the improved, the innovative or the latest in a long line of products which have been manufactured and offered for sale over the years in order to satisfy a given need' (Campbell, 1992, p. 54). New in this context refers to the fact that the new product can satisfy the need better, more easily, etc. Finally, new is

used to reflect the novel and unfamiliar and thus is related to consumers' experiences and interpretation of the product. Campbell (1992, p. 55) suggests also that 'novelty is more likely to be a judgement which an individual makes on the basis of previous experience and is largely unrelated to any given characteristics of the product itself'. Although providing a framework within which newness can be assessed, these categories are rather contextual and not mutually exclusive. A product can be novel, fresh or innovative and fresh, and sometimes can be all three.

In summary, it is interesting to see how newness was shaped around Sky digital television and what were the properties of the product that influenced this shaping. Some of the claims, explicit and implicit, in Sky marketing and advertising were about the product's novelty, the company's innovativeness, the need for change and the need to move to the future. It is interesting also that although Sky digital was articulating a clear message of newness, change and progress, the design of the hardware and its early advertising which focused on choice, programming and multichannel capacity, revealed a tension between past and future and represented Sky digital as wavering between the new and the old.

DTV is a new medium that brings together various old and new media through a joint delivery mechanism. It can be seen as a hybrid medium combining television programming and interactivity. Sky digital television, in Campbell's terms, is both improved/innovative and novel/unfamiliar. It is improved because of its larger distribution capacity, more channels, better picture and sound, more choice; it is novel in the experiential sense Campbell (1992) describes, but also more universally in providing new and unfamiliar features/experiences through television, a medium that traditionally had other specific functions. It can be argued of course that the experience of interactivity is not entirely novel for those with experience of the internet, but this is not an experiential but rather a more technical use of the term. From an experiential viewpoint, the actual new way of delivery, new format, new medium and new reception mode of these interactive services does indeed affects the ways they are perceived and used by audiences since their different use contexts result in different reception and appropriation for the consumer, as is discussed in chapter 7.

Sky digital was devised as a hybrid medium. This is how marketing shaped it in its early days. Starting in 1998 it was promoted as an innovative or improved medium. Both in its technological design and content, and its aesthetic proposition and

marketing, DTV was heavily biased towards its function as a television programme provider. With the incorporation in early 1999 of interactivity on DTV, the medium technologically attempted to become novel, but its representation and publicising did not adjust in line with this change. By the time it caught up, it was unable to fuse the innovative and the novel, multichannel and interactivity. It was only with the campaign in March 2001 that Sky digital began to acquire a more uniform and consistent identity. It took over two years for the service to grow sufficiently to attempt to merge and converge its two components. In the succeeding chapters I discuss whether it achieved or whether it was too late when this happened, or even whether this converged experiment was a good idea. These next chapters look at what viewers thought of this hybrid medium, their use and reception.

Key Moments and Directions in the Shaping of Sky Digital and DTV

It should be clear and I would like to suggest that it is because of certain key market, socio-political, technological and historical factors that the early shaping of DTV in the production and market place took the particular form and direction discussed here. After all a new technology does not appear unexpectedly and its diffusion is not a mechanical or determined process. Rather it is ingrained with a number of meanings and codes of our culture and draws on numerous socioeconomic processes and the general social reality. In line with Weber and Evans (2002, p. 453) I agree that:

> the media's role in constructing the meaning of digital television technology reveals the inseparable interrelatedness of language, technology, society and power. Clearly, the technology of digital television does not have a life of its own...There are significant ongoing social, economics, and political forces making an impact on the way that the meaning of digital television is constructed and integrated into the social fabric.

And clearly the representation moment through marketing and advertising analysed here shaped the meaning of early DTV and speeded its diffusion among the public.

So, why such a strong focus on upgraded programming rather than the interactive features? Why did Sky digital highlight the improved rather than the novel characteristics of its service? What were the pressures that coincided and possibly led to

this image creation and promotional discourse? How and why did this first definition of DTV emerge in the market?

First, there are what could be called *'historical* factors' and the history of broadcasting that influenced the shaping of early DTV, which were discussed in chapter 4. This shaping of DTV mainly as multichannel, of better quality and greater variety, was almost inevitable since, as argued in chapter 4, in many respects the digital television era is a continuation of the analogue multichannel era. Later digital audiences were already familiar with and trained to a multichannel world through cable and satellite television. DTV was continuing and expanding the *legacy* of the analogue multichannel era and thus 'digital' as 'upgraded multichannel' seemed a guarantee of success. It was hoped that a *smooth transition* to the digital age could be achieved by focusing on what most of the general audience was already familiar with. However, chapter 4 shows that government rhetoric too was in a way an expansion of the analogue rhetoric of the 1980s and a continuation of Thatcher's policy.

Related to this historical context was the 'pre-existing-*audience factor'* which is tightly linked to *'business factors'*. In particular, Sky, aware of the importance of its Sky analogue subscription base, capitalized on it. Analogue multichannel viewers were its 'first' target audience and were relatively easy to persuade to switch because they were used to multichannel television and the delivering company. DTV was promoted as 'advanced multichannel' and was in line with the diffusion approach characteristics that play a role in diffusion and relate to audiences' criteria for adoption. These were: 'compatibility', DTV as upgraded multichannel was consistent with adopters' pre-existing experience and values; 'relative advantage', it was better than analogue; and 'complexity', DTV was not very difficult to understand or use (Rogers, 1995).

So Sky had a comparative advantage in the shape of an existing pool of 'past' or 'old' users that would provide them with a base of 'future' or 'new' subscribers. Eventually, its Sky analogue subscription base became for Sky a 'must switch base' because of the cost of retaining both analogue and digital platforms/infrastructures. This is probably one of the main *'business reasons'* why Sky adopted such aggressive marketing overall and provided offers and incentives to existing analogue customers to switch platforms.

Also related to the historical context was the primary *political-economy factor*. Sky digital business aimed to acquire customers, to increase its subscription base and revenue. It was logical to build on its traditional position as the leading analogue

content/programming provider, as the company that pushed the deregulation of broadcasting and brought channel choice to the living rooms of Britain (see chapter 4).

Market demands and the *nature of the market* were additional factors that influenced the marketing, rhetoric and shape of Sky DTV. The *practical* need to sell the product was an obvious reason for its specific marketing plans and rhetoric. In the pre-launch era the government was generally promoting DTV through the language of progress, economic development, revolution, etc., but this rhetoric was largely *theoretical* and aimed at promoting ideas or policies. After the launch of Sky digital, the company's rhetoric had to be toned down; it needed to be explicit and specific in order to sell subscriptions. So it focused on what was tangible and already existing - channels, content, variety - rather than what was coming - interactivity, two way interaction, convergence. In the same respect, content and programming as well as being a proven winner for Sky, was a very profitable venture/domain, whether delivering its own or others' channels. *Competition* was another reason/factor why Sky focused more on choice and content. Sky's business ethos 'to be the first' pushed it to capitalize on what it knew best: programming, single genre channels, big sporting events, the latest films.

Also influencing early DTV design and advertising were *technological* and *legal* reasons. Note that despite the media talk and expectations, the state of the technology at the time was quite crude and the industry was developing slowly. This discouraged Sky from emphasizing and prioritizing its interactive and enhanced features in its promotional strategy. Technology and interactive services were then just being developed and improved along the way; sounding like the most revolutionary but not necessarily being the most alluring features in Sky's showcase. *Legal aspects* also played a role and were influenced by the *industry shape at* the time. Interactive services, such as home-shopping, banking, email, on Sky digital were provided by 'Open….' in early 1999. 'Open....' was owned by BiB as a joint venture between BT, Midland bank, Matsushita and BSkyB. There was no mutual advertising or marketing between the two companies (BSkyB and BiB) and only a few interactive adverts were designed by BiB to promote 'Open….' as an independent service. This led to a somewhat inconsistent representation of Sky digital service but was probably unavoidable because of the legal structure of the two companies (BiB and BSkyB) that prevented Sky from promoting 'Open….' services. It was perhaps unavoidable because the deal was that BiB provided Sky digital the free digibox subsidy in the hope of claiming it back through revenue from the 'Open....' interactive services that would be delivered via Sky (Starks, 2007).

Advertising 'Open….' was then not a priority for Sky. The situation was resolved since the 2001 campaign when Sky increased its shareholding in BiB before finally taking over BiB ('Open….') and re-introducing it as Sky Active in October 2001.

The hybrid nature of the medium, *innovation design factors* and *social* issues concerning the reception of novelty, were all reasons why the early representation moment shaped DTV as an upgraded multichannel with the emphasis on content. Sky digital was both 'improved/innovative' (multichannel) and 'novel/unfamiliar' (interactive). This hybridity led to prioritization of the former quality and the shaping of Sky digital as a mainly upgraded multichannel television with some complementary features. In designing or representing a new product or technology it can be expected that new features will be both alluring and intimidating and familiar ones reassuring and also tedious. New products are designed to balance the strange and the familiar, to be painlessly and easily communicated and transferred in the household (Silverstone and Haddon, 1996). They need to find the golden mean between a high degree of *compatibility* and a low degree of *complexity* (Rogers, 2003); to balance the known with the unknown. It is usually the known and familiar characteristics of a product that the potential user starts from. In this sense Sky digital's advertising and marketing, in balancing the familiar and the strange, leant towards the familiar. In its effort to enter households easily and quickly, Sky digital was shaped as an *improved* service and hardware – *offering more and better,* not a wholly novel medium or utterly distinctive piece of technology. This perhaps explains why the new medium of DTV at that stage was unavoidably 'transitional', and in between worlds and identities.

Finally, it should be remembered that in the days of DTV's *early diffusion,* the key players, policy, technology, the industry and the competition were in flux or just beginning to take shape. Given the fluid context, broadcasting history, past experiences of users and the ultimate aims of BSkyB in terms of sales and profits, the communication path and strategy adopted, were possibly the only ones that could have ensured success.

Conclusion

This chapter examined the representation moment of the circuit of culture and through an analysis of the early design, advertising and marketing of DTV revealed how DTV's definition and identity emerged in the production and market place in its early years in the UK. I have shown that these early images and meanings created through representation and also through the hardware design were possibly significant for the evolution of the medium and the factors that pushed it in particular directions. This is investigated further in chapter 6.

I discussed the meanings attached to FGDTV and its users through representation and showed how its early producer/market driven definition was formed. Despite the pre-launch media promotional discourse and government rhetoric that equated DTV with progress, advancement and growth, and the commonsensical and somewhat justifiable view that this new medium, like any new medium in its early days, was mythologized, early representations of DTV constructed it primarily as multichannel television offering expanded choice and variety of programming. It was defined as a friendly and rather familiar technology but 'with a twist' of few extra features to complement the television offering.

Sky DTV was constructed as a hybrid; a combination of new and old. Its launch campaign, especially, promised a comparative 'revolution' in terms of *more* choice, *more* control, *more* entertainment, *better* picture, *better* quality, *easier* access. Despite impressions, Sky's early promotional discourse focused mainly on what were rather familiar and conventional hardware, software and practices. Later representations attempted to emphasize the image of an all-around entertainment interface providing something for everyone.

Sky, the company, was constructed as a visionary, providing people with what they needed and users as longing to be immersed in a multichannel experience of choice and control, and addressed as empowered through choice and ability to 'watch what they want, when they want it'. Sky, the product, was constructed as a technology that required little effort and money from the consumer; it was an approachable and accessible artefact intended for the ordinary average person with average attraction to the new. Simultaneously, however, it ensured participation in the digital age and inscribed users that were fairly modern, up to date with state-of-the-art technology and technologically literate. Users were configured mainly as appreciating choice and value,

as both modern and traditional, keen to purchase new technology, but at low cost, as wanting to advertise ownership of DTV but in a subtle and sophisticated way. These tensions, I argue, are generally a manifestation of the hybrid nature of the new medium, and the position of the delivering company, which was between the analogue and digital worlds. Despite fluctuations between old and new, multichannel and interactivity, and the analogue and digital worlds, my analysis shows that, in the early days of Sky digital communication, the multichannel element was prioritized and the interactive aspect relatively downplayed.

A variety of historical, technological, consumer, financial, market and other reasons were identified as key to shaping this meaning of Sky digital through representation, and in letting it take the particular direction documented here. The analysis highlights that the design and diffusion of DTV did not happen in a vacuum or a corporate laboratory, but were socially constructed. These factors that influenced the design, marketing and promotion of DTV, demonstrate also that social shaping principles are compatible with those of diffusion of innovations, an argument that is expanded in the succeeding chapters.

Is this representation of DTV compatible or not with the reasons for its adoption or the uses to which it was later put? In other words does the market driven definition correspond to the definition provided at the adoption and consumption moment? How did these representations fit with how consumers used it and the meanings they attached to it? Was the 'one interface-fits all purposes' logic proposed by DTV a successful experiment or not? What was the role of audiences and first generation users in shaping DTV? These are issues I examine in the following chapters, which look at how DTV was taken up and used by the first generation audience.

Chapter 6: Going Digital: Towards the Moment of Consumption

Introduction

Chapter 5 discussed the representation moment of DTV and showed how it was shaped symbolically through marketing, advertising and design. Chapter 6 focuses on the process of DTV material spreading to the UK; how it began and who was involved. It concentrates on the diffusion and the *adoption process* of DTV, 'the reasons and decision-steps that underpin a consumer's decision to take up a new product' (Green, 2002, p. 28), and explains how consumers took up DTV. This chapter highlights the pathway in the circuit of culture that connects production to consumption. It examines the DTV adoption strategy and discusses the processes *before* adoption[111] that bring technology home and subsequently lead to consumption.

In the theoretical chapter (chapter 2) I explained that, in this thesis, adoption is conceptualised as a two stage process, *before* and *after* the technology enters the household. Chapter 6 examines the first, the *before* stage; the process through which and the time when the technology, as a marketable object, enters the household to be then turned into a domestic good. I suggest that this is the moment that bridges the diffusion of innovations and the design and domestication framework, and is akin to Silverstone and Haddon's (1996) 'commodification' phase, that is, the point where adoption and 'appropriation' meet (Silverstone, Hirsch and Morley, 1992). In the theoretical chapter I critiqued the technological determinism of innovations diffusion which takes technologies as given. Crucially, and in line with domestication theory and the circuit of culture perspective adopted in this thesis, I contend that a technology is not empty of meanings before purchase and before use, but is inscribed with a variety of messages, statements and values. In other words, and as explained in the chapters in this thesis, a technology or new medium acquires meanings and is shaped as it passes through the various moments and intersections of the cultural circuit. In the case of

---

[111] As explained in methodology chapter (chapter 3) the survey questionnaire was designed in line with the theoretical concerns of both diffusion of innovations and domestication theory, to provide a 'narrative' of DTV, its lifestory and adoption, both *before* and *after* it entered the household. The data presented here relate to the processes that take place before purchase and subscription.

DTV, some of these were already discussed in the historical chapter (chapter 4) and the chapter analysing the Representation moment of DTV (chapter 5).

In addition to looking at *how* questions and at DTV adoption strategies, chapter 6 deals with the specific issue of access and, in particular, with the related *who* and *why* questions. Before proceeding to discuss questions of use and the consumption moment in chapter 7, this chapter provides the context of the conditions of availability of DTV to its first generation consumers. I reveal how DTV was shaped at adoption and provide clues about how the later uses of DTV were perhaps influenced by the processes of its adoption and gaining access by households (Livingstone, 2002, pp. 33-35).

In what follows, I introduce my research informants as the first generation digital audience, and describe my methods for analysing the adoption moment. I provide a summary of the diffusion pace and adoption rates of DTV at the time of my fieldwork and also in relation to other technologies in order to explain the technological environment of those times. I present the findings from my survey so as to draw the profile of the first generation digital audience and highlight its distinctive characteristics. Throughout chapter 6 this profile is assessed in relation to other technologies and inferences are drawn about the DTV diffusion path. I proceed by outlining the reasons why people purchased this new service and then, based on information derived from the interviews, discuss the decision-making process. In particular, I examine the adoption strategies used to help people become acquainted with the 'new'. I look at how initial *awareness* and *interest in* DTV developed; what were the more popular sources of ideas and information about the service; what were the domestic processes and decision making steps involved in taking it up; what family dynamics were involved in the decision. I argue and show that the decision-making process in particular, and the adoption stage in general, even before use, attach further meanings to the technology and signal the commencement of the consumption and domestication process.

First Generation DTV Adopters

At the time when the sample for the survey research was drawn, approximately 5.25 million[112] UK households had DTV, of which 3.8 million Sky digital[113] (see graph 3.1, chapter 3 and graph 6.1, appendix 6). These graphs clearly illustrate the predominance of the Sky digital platform compared to the competition at the time. This applies especially at the time of the FGDTV survey (depicted on graph 3.1 sometime between Q2 and Q3 of 2000). Taking as a population the total number of UK households, the stage of adoption of DTV when the sample for the FGDTV survey wasdrawn was estimated. It was shown in the Methods chapter (table 3.1.1, appendix 3) that during August 2000, the early adoption phase of DTV in the UK had been achieved and the early phase of early majority had begun.

This first generation DTV audience is discussed in this chapter through the auxiliary triangulation method described in chapter 3. I use mainly survey research and some in-depth interviews. The latter are mostly used to support my survey findings, and to *enhance* them by shedding more light on how people responded to DTV at the time it entered their homes (and especially in the adoption decision-making section in this chapter).

Note that the contextual statistics on concurrent research on DTV, commercial, market, government, or academic related mainly to the year 2000, so as to be in step with the timeline of my quantitative research. Where 2000 research data were unavailable, data from 2001, 2002 and/or 1999 are used based on chronological proximity to my research data. In constructing the profile of FGDTV adopters I compare my findings with those from several different surveys in order to have a wider range of information.[114] Since, academic research on DTV in that period is rather limited, commercial and market research is used to provide key points of reference in this chapter.[115]

---

[112] Oftel. (2000b). *Consumers' Use Of Digital TV - Summary of Oftel Residential Survey, Q2*. August, 2000
[113] BSkyB, (26 July 2000). Announced *Results for the year ended 30 June 2000*.
[114] It was difficult to find a large body of up to date data using the same or similar measurement scales and time-frames. Also some statistics required conversion (from frequencies to percentages etc.) to allow a comparisons to be made. However it is possible to demonstrate clear trends which if interpreted with caution allow some firm conclusions.
[115] Full details of the research reports consulted are contained in appendix 6.

The comparisons and contextualisation of DTV has three aims. They are *theoretical* when I compare DTV with other media; *empirical* when I situate my research results in relation to the wider population in Britain, and crucially seeking to *validate* my data when comparing these with other research on DTV. The comparisons aim mostly to highlight differences and similarities and thus allow inferences about the particularities of the early diffusion of DTV and of the characteristics of Sky digital subscribers as a special group of the population and of technology adopters.

DTV: Fast diffusion pace, eagerness to adopt and internet competition

Chapters 4 and 5 discussed the rapid early diffusion of DTV in the UK and Sky digital in particular. According to Oftel (Office of Telecommunications) research (2000b) on 'Consumers' use of Digital TV', by August 2000, the time the FGDTV sample was drawn and less than two years after the launch of DTV, 21% of UK households had access to DTV. Sky digital penetration represented 76% of overall DTV penetration. DTV was growing steadily and rapidly, especially following the introduction of the Sky 'free digital initiative' in April 2000. FGDTV subscribers were eager, and quick to adopt it, for a number of reasons which are discussed in the following sections and throughout this thesis. That most were already subscribers to Sky analogue was a primary reason. However, eagerness to adopt and ambition in consumption terms was, I would stress, one of their distinctive characteristics.

Around the same time, internet penetration in Britain was increasing. Although it had been introduced some years before DTV it had had a relatively slow start compared to DTV, but in the late 1990s it started to catch up, and in October 2000 internet adoption was 28% of UK households.[116] Graph 6.2 (appendix 6) shows household adoption of computers with internet access in the UK up to 2001. The fast adoption and penetration growth since 2000 is evident.

It can be said then that DTV and the home internet were happening at almost the same time in the UK. Their diffusion was almost parallel, which needs to be taken into account in order to understand patterns of ownership and use of DTV. The effect of internet adoption and experience on DTV use, and understandings about the relationship between DTV and the internet are discussed in chapter 7 on DTV consumption and use.

---

[116] T-Learning Study. (2000). *News Learning With Video-Rich Multimedia.* October 2000, www.pjb.co.uk/t-learning/lvmoct00.htm.

First Generation Digital Audience Profile and 'Trickling Across' of DTV

Findings from the FGDTV survey show that FGDTV adopters were somewhat atypical of Rogers' early adopters and that at that stage the diffusion of satellite DTV in the UK did not follow a 'trickle down', but rather seems to have 'trickled across' socio-demographic categories. At its early adoption to early majority stage DTV was more evenly spread across age, socioeconomic status, ethnic and education level groups than might have been expected given diffusion of innovation and 'trickle down' theories, and experience of adoption of other media.

The average Sky digital subscriber who participated in the FGDTV survey (see table 6.1), was male (68%), around 44 years old, of low to average level of education, in full-time work (55%), married and living with his family (72%). These figures generally fit BMRB's survey of July 2000,[117] which showed that in the early years of the service the majority of Sky digital viewers were male (55%), in full time work (46%) and in the age group of 35-54 (41%). Concerning gender composition, it should be noted that the sample was Sky digital subscribers, that is, the persons paying for the service, who in most cases are the chief income earners of the household, and usually male. The FGDTV survey shows also that the overwhelming majority of respondents were white (95%) and the predominant household structure was the nuclear family (parents with children) (51%), although DTV was also popular among families without children (49%). DTV seems to have been popular with medium and large size households with three or more members (table 6.1)

The average age of subscribers (44 years) is relatively higher than might be expected at this stage of adoption. Although young age groups (25-34 and 18-24 years) represented around a quarter of participants, nearly half of respondents were 35 years or older (table 6.1). Apparently this older age bias can be attributed to the fact that it refers to the age of the subscriber, the household member who pays for the technology and more likely to be older. The average age drops to 34 years once the age of all household members, that is total viewers' age, is calculated. But it is evident that, with the

---

[117] BMRB International, *Digital Viewers' Survey*, July 2000. Caution is needed in interpreting these comparisons because the surveys used different samples. BMRB had a response base of 500 adult DTV *viewers*, while the FGDTV research surveyed 700 adult Sky digital *subscribers*. However, the BMRB figures reported here apply to Sky digital viewers only.

exception of the under 14 years old category (21%), *first generation DTV was consistently available to all age groups* (table 6.1).

Table 6.1 **Subscriber and Household demographics**[118] *(%)*

Gender (N=700)	%	Ethnicity (N=689)	%
Male	68	White	95.5 (95)
Female	32	Black-Caribbean	0.4 (0)
Subscriber's Age (N=676)	%	Black-African	0.7 (1)
18-24 years	3	Black-Other	0.1 (0)
25-34 years	20	Indian	0.6 (1)
35-44 years	28	Pakistani	0.6 (1)
45-54 years	23	Bangladeshi	0.1 (0)
55-64 years	15	Chinese	0.4 (0)
65+ years	11	Other	0.6 (1)
All Viewers' age (N=1901)	%	Would rather not say	0.9 (1)
Under 15	21	**Household structure**(N=687)	%
15-24	15	Single member household	7
25-34	15	Couple	31
35-44	17	Couple with children	51
45-54	14	Single parent	6
55-65	11	Couple and other adults	1
65+	7	Couple, children and other adults	1
Socioeconomic status (N=614)	%	Flatshare	1
Low	45	Other	2
Medium	43	**Number of household members** (N=688)	%
High	12	One	7
Marital status (695)	%	Two	35
Married	72	Three	22
Living with partner	10	Four	24
Divorced/separated	6	Five	9
Widowed	4	Six	2
Single	8	Seven	0
Working status (N=689)	%	Eight	0
Full time work	55	**Children in the household** (N=687)	%
Part time work	8	Yes	58
Housekeeping	4	No	42
Self-employed	11	**Number of children** (N=688)	%
Unemployed	2	None	41
Voluntary/unpaid work	1	One	21
Fulltime student	1	Two	27
Retired/pensioned	17	Three	8
Other	1	Four	3
Education (N=662)	%	Five	0
Secondary/CSEs	24	Six	0
O levels/GCSEs	24		
A levels	10		
Undergraduate	10		
Postgraduate	4		
Professional qualifications	19		
Other	9		

---

[118] This is a multiple table composed of twelve different tables, referring to the demographic characteristics of participants, presented in one.

Research conducted at different points in the DTV diffusion process, on the age of viewers is summarised in graph 6.4 (appendix 6). It shows that overall DTV access in the very early phases of the adoption was somewhat unevenly spread among the young, middle and old age groups, but shifted during the late stages of early adoption and beginning of early majority towards older users and became more evenly spread across the population as regards age.

FGDTV users were different from early adopters of new technologies in relation to their socioeconomic status. At that point of diffusion there is no evidence to suggest that lower socioeconomic households would be less likely to have DTV than more affluent people; in fact, the reverse was true, and a respectable share of subscribers came from low socioeconomic status households (45%). At the same time, however, it would be a misleading to suggest that Sky digital and DTV in general were more appealing to low social status households. The findings suggest also that 43% of Sky digital first generation subscribers came from medium and 12% from high socioeconomic status households (table 6.1). These findings question the mainstream 'trickle down' scenario related to ICTs in the case of DTV. They are in line with research from the Consumers' Association (March 2001) and Mori research conducted six months after the FGDTV survey, in June 2001. Mori (2001) also suggested that in these relatively early stages of adoption, socioeconomic status did not play a significant role in the uptake of DTV despite a slight increase in DTV adoption among higher social groups during the time it investigated. Mori research shows 'existing' DTV viewers were primarily C2DE (53%), but also 47% from ABC1 social groupings (Mori, 2001, p. 10). It also found that at the time '[b]y social grade "existing" digital television households match the profile of the population as a whole' (Mori, 2001, p. 12).[119]

The Consumers' Association carried out influential research titled 'Turn on, Tune in, Switched-off: Consumers' Attitudes to Digital TV' between February and March 2001 as a basis for predicting future demand for DTV and timing analogue switch-off. It found that:

---

[119] Sky digital is cautious about public disclosure of its demographics, and presents a somewhat different picture in its BSkyB, 2000, Preliminary Results (26 July 2000), citing Continental Research figures for February 2000 that suggest that digital subscribers are mostly ABC1s (52%), 25% are C2s and 23% DE. Also, the figures they give for the Sky analogue multichannel service (46% ABC1, 26% C2 and 28% DE) contrast with data reported in academic work on the early analogue multichannel era which generally states that '…satellite television homes are concentrated predominately (70 per cent) in social groups C2, D and E; not in the ABC1 groups most sought by advertisers' (Collins, 1992, p. 119).

[v]ariations by social grade are less clear cut. C2s were the most likely group to have gone Digital (31% have DTV) but there are no significant differences between any of the other social grades. Therefore, there is no evidence to suggest that lower income households (DEs) are less likely to have DTV than more affluent people. (Consumers' Association, 2001, p. 26)

And it found no evidence that lower socio economic status households are more likely to have DTV, one may consequently add. The figures given are 23% of ABs, 23% of C1, 31% C2s, 28% of DE.

These figures concern DTV overall. However the Consumers' Association notes also that social status plays a role in the *specific provider* chosen. It shows that

Satellite Digital is particularly popular among C2s and DEs; at least three quarters of adopters within each of these groups have access to Sky digital's services. Ondigital appears to have a slightly more upmarket base (although these findings are not statistically significant) whereas NTL is particularly popular with C1s. (Consumers' Association, 2001, p. 29)

Despite the different measurement scales used, these data are in line with my findings and might explain why the majority of FGDTV adopters are in the medium and low social status categories, and appears of a somewhat lower social grade than market research on overall DTV uptake would seem to suggest.[120] Oftel (2000b) research also supports the uniform appeal of DTV across socio-demographics. Its 'Consumers' use of Digital TV' residential survey[121] of August 2000 shows that DTV was 'more evenly distributed across a wider cross-section of the population in terms of age, social grade and income, than other technologies like for example internet' (Oftel, 2000b, p. 4).

In autumn 2001, Taylor Nelson Sofres conducted a survey for the Department for Education and Skills, the 'Young people and ICTs' survey. Addressed to young people and their parents, it asked about use and attitudes to various ICTs. This significant survey produced some very interesting findings that confirm the trickle-down theory for all the technologies surveyed except DTV and games consoles. In the case of DTV and games consoles, it found evidence of the *trickle across* pattern. The report identifies social grade as a significant discriminator of ICT ownership and notes that:

---

[120] Cumberbatch et al., 2000, inform us that at the time, 'the highest proportion of multichannel users are in the 25-35 age group and tend to be in the C1 group (30%)'(Cumberbatch et al., *Television: The public's view 2000*, p. 12) In particular the remaining were AB 22%, C2 26%, DE 22%. These however were users of any platform and is not clear whether they were digital or analogue or both.
[121] Oftel. (2000b). *Consumers' Use Of Digital TV - Summary of Oftel Residential Survey. Q2*. August, 2000.

Some 94% of respondents in households in social grades A and B owned personal or laptop computers. This fell to 89% in households in social grade C1, 79% in households in social grade C2 and 59% in households in social grades D and E…Households in social grades D and E were the least likely to own most of the sources of ICT...Exceptions were interactive digital TVs where there were no significant differences by social grade, and games consoles where the incidence was higher among those in social grades C2, D and E compared to those in social grades A, B and C1 (75% vs. 66%).

(Taylor Nelson Sofres, 2001, p. 7)

In this research, all social grade categories are equally likely to have DTV. Approximately 36% of each had taken up this new medium (36% of AB, 36% of C1, 37% of C2, 35% of DE, p. 7). This again confirms the trickling across pattern in the spread of DTV in its early days.

In terms of racial and ethnic identification, the huge majority of participants in the FGDTV survey belonged to white ethnic groups (95%) (see table 6.1). Comparison of the survey results for ethnicity with the distribution of ethnic groups in the UK population (see appendix 6) shows that at the time Sky digital was fairly evenly spread across ethnic categories. However, early Sky digital was not evenly spread across household sizes. It was predominant among larger households.[122] Although the majority of participants in the FGDTV survey belonged to two-person households (35%), when compared to the UK household population we see that Sky digital had greater appeal for households with three or more members (appendix 6). At the time, in the UK 29% of all households were one-person households, but only 7% of the participants in my survey were from one-person households. This contrasts with the stereotype of the lone person with multiple media and is an indication that at that point in its adoption, DTV was perceived mostly as family technology.

As expected, Sky digital was found to be more popular with families with children (58%, table 6.1). This is the trend for DTV in general. Consumers' Association (2001) research confirms that families with children were significantly more likely to have 'gone digital'. Concerning household structure, those participating in the survey more or less reflect the general household structure composition of all UK households (appendix 6).

---

[122] Average UK household size is 2.4 (Source: Census, Labour Force Survey 2000), while average household size of Sky respondents is 3.

DTV, the mobile phone, the internet: new media happening at the same time, but differently

Participants' socio-demographic profile analysis suggests that in its first two years of diffusion, DTV was not an early adopter technology but a medium with a uniform appeal to people from different age, socioeconomic and ethnic groups. Generally, early uptake of DTV was more evenly distributed across the population than other new media such as the internet or mobile phones, which, as Oftel research from 2000 suggests, at the time were still relatively specialist technologies taken up mainly by the younger and middle age groups, and the higher socioeconomic strata.[123]

Although data from the very early days of adoption of these media are largely unavailable, Oftel research (2000e) shows that even at a later stage in the diffusion of mobile phones, in November 2000, mobile phone ownership had reached a mass market and 62% of UK adults, but its diffusion was largely dependent on income and age. Although adoption at the time was slowly increasing amongst DE social groups it was still much higher amongst the higher social strata and high income groups (more than £30,000 annual household income), and amongst mainly young consumers (15-34 years) and middle age groups.

Home internet, similarly, was taken up by 28% of UK homes according to an Oftel report in August 2000[124] which showed only a minor change for lower income groups since January 1999 when home adoption was 12%, in the mid early adoption stage, that is. In 2000, home access and usage remained highest amongst the higher income groups and AB social grades, over half of which said they had access; growth remained slow and low for the lowest income groups, DEs, for consumers not working and those aged over 55 years. In assessing whether the internet was becoming more widespread or was still a specialist consumer product, the report concludes that in 2000, even though there was a slight shift towards older and less affluent users, the internet was still 'a relatively specialist home technology' that had 'some way to go before becoming a more universal home product' (Oftel, 2000c, p. 4); and even though 'home internet usage continue[d] to grow, it [was] still primarily the technology of early

---

[123] Oftel. (2000b). *Consumers' Use Of Digital TV - Summary of Oftel Residential Survey. Q2.* August, 2000 and Oftel. (2000e). *Consumers Use Of Mobile Telephony, Summary of Oftel Residential Survey.* November, 2000.

[124] Also the time of my research when DTV take-up was 21%

adopters who use a range of telecoms technology, and are generally from the AB social grades and higher income groups' (ibid, p. 6).

This comparison suggests that, in its early days, the internet was following the typical diffusion pattern, with initial take-up by the upscale population and trickling down the social ladder. Similarly, the mobile phone even after reaching a mass market attracted more wealthy and young users, before reaching the less affluent. The diffusion path of DTV, and the profile of the FGDTV subscribers discussed here with data from my research and from research of the time, are then somewhat surprising, especially given its early and rapid adoption. Compared to other media, such as the internet and mobile phone, which initially attracted mainly the young, wealthy and well educated and again initially at least, were perceived as specialist media to cover specialist needs, DTV, and Sky digital in particular, from the start of their life cycle was perceived as a *general appeal medium*. Only two years after the launch of DTV it had attracted an audience with demographic uncharacteristic of the 'typical' early adopter and more similar to audiences of media that have reached mass market. This conclusion is supported by the studies referred to here, and the 'trickling across' scenario of DTV that is proposed.

Why was this? Why was DTV diffusion distinctively different from the diffusion of other media, in terms of the characteristics of first generation users? What was it about the medium that attracted users from different socio-demographic backgrounds and that meant it was from the start seen not as a specialist, but as a mass appeal medium? I address these questions by looking at the reasons why and the processes through which first generation Sky digital subscribers decided to take up this new medium. First, I outline the media profile of the FGDTV audience and underline its *previous* television and media *experience. Previous media experience*, as discussed also in chapter 4, in the media context of the 1980s and in chapter 5 in relation to representation and marketing planning, is shown to be a decisive factor in DTV adoption and, in a different way, in use (see chapter 7).

'Trickle down' adoption...and exceptions

As discussed in the theoretical chapter (chapter 2), Diffusion theorists see differential access to and use of new technologies traditionally as being based on gender, age, income and social class, with men, younger rather than old age categories, and affluent social groupings generally considered the first to acquire a new technology or to own the largest number and the latest technologies.

Rogers et al.'s 1980s study of the early adoption of the home computer in the United States in the early 1980s, for example, shows ownership persistently centred on the professional and managerial classes. These diffusion scholars found social status to be a consistent predictor of computer adoption and use (Rogers et al. 1982 in Rompaey, Roe, Struys, 2002, p. 189), and concluded that for computers, 'differential access seems to be primarily based on income differentials across socioeconomic status groups' (Dutton et al., 1988, p. 14, in Murdock et al., 1992, p. 148). This pattern is evident also in UK as Family Expenditure Surveys 'revealed a clear linear relation between income and computer ownership' (Murdock et al, 1992, p. 148). Many examples of the role of income, class position and affluence levels in the early take-up of various media are discussed in this chapter on the basis of either academic or commercial research. These studies generally support the Simmel's (1957) 'trickle down' theory which, as discussed in chapter 2, in the direction it proposes is in line with Rogers's (2003) direction of adoption and adopter categories' characteristics. It appears that in most cases, media technology diffusion fits the 'trickle down' scenario (for telephone and television in the UK see Douglas and Isherwood, 1979; for computing and internet in the US see Lin, 1998; Atkin et al, 1998; Cole, 2000). However, as I have already argued, there are exceptions to this trickle down pattern.

Despite this mainstream trend in media adoption and circulation, it is a common sense assumption that television-related and screen media especially, are more keenly taken up by the lower middle classes and tend to trickle across or up the status ladder. Sufficient and sound statistical evidence for this idea is limited and not systematically recorded in academic writing. However, the VCR is one recorded case that provides an example of what could be characterised as a trickle across pattern. Mackay (1995) shows that take-up of the VCR in its early years (1985) was relatively equal across classes, although with a slightly lower presence in E class households. In 1985, the VCR had been adopted by 33% of AB households, 32% of C1, 38% of C2 households,

31% of D and 16% of E households (ibid., p. 323). Since its launch, the VCR had overall a very fast pace of diffusion and impressive adoption rates, making it in one of the most popular electronic appliances. Its penetration exceeded estimations and predictions and in fact, in 1992 the UK had 'the second highest penetration rate of any country' (Mackay, 1995, p. 323), being owned by 69% of UK households.[125]

This fast diffusion and high adoption rate of the VCR were overtaken by DTV some fifteen years later at the end of the millennium and, arguably, diffusion of DTV shows similarities with that of the VCR (graph 6.3, appendix 6). Another major similarity between the two is that they are both *entertainment, screen-based* media used for *leisure and relaxation*. This highlights other issues than those proposed by Rogers that might be important for the adoption of such technologies, and invite closer examination of each technology adoption process. I suggest that *previous* television *experience* and the *media environment* can play an important role in influencing adoption and use of a new technology. I next analyse FGDTV adopters in this context.

Previous Television Experience and Media Profile

Reception equipment

The majority of Sky digital participants (93%) used a digital set top box for their DTV reception (table 6.2). Widescreen integrated DTV sets (IDTV), with the digital decoder built in the TV set, had poor take-up among subscribers with only 3% owning one, whilst 3% of subscribers had both a digibox and IDTV, indicating multiple DTV reception. The popularity of the set top box as the main way to receive DTV is confirmed by Consumers' Association (2001, p. 28) research which shows that 85% of DTV subscribers used a set top box. Chapters 4 and 5 discuss how the set top box free give-aways were a major driver of Sky digital sales. In the face of the high cost of IDTVs, it is not surprising that most respondents used a set top box for reception and most had benefited from the Free Digital Initiative' promotion and received it free of charge (73% of those with a digibox).

---

[125] Family spending survey, 1992

Previous television service and the significance of past experience

Concerning subscribers' previous television services, a majority of participants (61%) were subscribers to Sky analogue who switched to its digital service. This is to be expected given their pre-existing Sky analogue subscription, their familiarity with it, and the well-targeted and often 'aggressive' marketing strategies of BSkyB to turn them digital (table 6.3). Another 10% were also from a previous multichannel environment with 6% having had cable television and 4% other satellite reception. Only 29% of respondents had no experience of multichannel television and access to only terrestrial television prior to their Sky digital subscription. Overall 71% of subscribers had multichannel pay TV. Here too, the Consumers' Association (2001, p. 27) research figures agree with the FGDTV findings; they show that among DTV subscribers of any platform 35% came from terrestrial and 62% from pay multichannel television.

It is the case, then, that the majority of first generation subscribers to Sky digital and DTV generally, previously were analogue multichannel users. This is a very important factor that seems to have influenced both adoption and further use of DTV, as I discuss in chapter 7. These subscribers were the main drivers of Sky digital uptake. For these, transition to DTV was easier and less innovative as they were used both to receiving a variety of channels and paying extra for their television before changing to DTV. Of these, the greater part, Sky analogue subscribers, were also familiar with most of the channels available and had additional incentives and discounts to turn digital.

Table 6.2 **DTV reception equipment** (%)	
(N=700)	%
Digibox	93
Widescreen Integrated DTV	3
Both Digibox and IDTV	3
Don't know/don't remember	1

Table 6.3 **Previous TV service** (%)	
(N=700)	%
Terrestrial TV	29
Sky analogue	61
Cable TV	6
(Other) Satellite TV	4

Subscribers to an incremental innovation

The findings show that a distinctive characteristic of FGDTV adopters is their familiarity with the innovation, the service and most of its offering, in its analogue form. In this sense, the majority cannot be considered in the same league as early adopters of other innovations, as risk-takers or daring forward thinkers (Rogers, 1995, Schiffman et al., 1997) or as being very innovative, since they bought into a *relatively cheap* and cosily *familiar technology*. Nevertheless, they are still materialistic as

consumers and somewhat ambitious in consumption terms given their prompt response to and swift purchase of this new technology. It also emerges from the interviews that previous Sky analogue subscribers, at the point of their decision to adopt, perceived Sky digital to be a continuation of their old Sky service. They exploited existing resources acquired through use of older media, mainly television, in order to understand the new medium and decide to take it up. However, the fact that DTV is an enhanced form of television, worked as a motivator for 'new to multichannel' adopters to subscribe as well, despite their being perhaps more daunted by DTV's newness. Nevertheless, we can conclude that the 'installed base' (Star and Ruhleder, 1996) on which DTV built, familiar old television, which had been part of the domestic infrastructure for decades, provided experience and diminished 'fear of the new' making DTV less intimidating and approachable by all.

I would argue that DTV, in Freeman's (1994) terms, is an 'incremental innovation'. As 'television' it relates to people's existing experience which is one of the reasons for its rapid adoption. In the same line Robertson (1967) explains what DTV was and how it was perceived by its first adopters. He distinguishes between 'continuous', 'dynamically continuous' and 'discontinuous' innovations, arguing that the first two types involve modifications of an existing product and cause little disruption in behavioural patterns (Robertson, 1967, p. 15-16). Accordingly, LaRose and Atkin (1992) suggest that people are likely to take up technologies that are functionally similar to those they already own; and Hawkins et al. (1994) re-address Rogers' notion of 'compatibility' as one of the key factors affecting diffusion. According Hawkins et al. (1994) the more consistent the innovation with consumers' beliefs, values and past experience of adoption, the faster will be its adoption. The findings of the FGDTV and the research discussed above, and the fast pace of DTV diffusion in the UK suggest that this was the case for DTV.

DTV was an *incremental* or *dynamically continuous* technology, *functionally similar* to and *compatible* with television and television experience. Here, I suggest that *familiarity,* based on a low or medium *degree of innovativeness* of a new technology and the *functions* of the technology itself, *successful marketing and pricing*, as well as users' *past experience* and audience *habits* developed through use of similar technologies, in some cases of technology adoption, are important factors that play a role in and explain the fast take-up of a new medium. All these elements, along with perceived notions of technologies as *elite* or *entertainment* technologies, in some cases

can be stronger explanatory factors than standard adopters' demographics (see Jeffres and Atkin, 1996) and established trickle down notions. This is the case of DTV and its first generation adopters.

Media profile

Another distinctive characteristic of the FGDTV households I examined is that they appeared particularly advanced in relation to their in-home media equipment. The distribution of various media across DTV households suggests not only high levels of ownership of old and new media technologies, but also multiple availability of these goods (table 6.4). This applies mainly to ownership of multiple television sets, telephones and music related equipment which turned out to be higher than the national average. Table 6.4 shows that 91% of participating households were multiple television households; a higher number compared to ITC figures for 2000[126] which show that 70% of TV households had two or more sets. VCR ownership at the national level for 2000 was 88%[127] and in Sky digital households was 97%. Also, 82% of Sky FGDTV households had mobile phones, whilst the average for the UK household population in 2000 was 68%.[128] Ownership of PCs and internet links was considerably higher too. Whereas 45% of UK households owned a PC and 28%, around 7 million homes, had internet access,[129] 65% of all households participating in the survey had at least one PC, and 56% internet access.

Generally multichannel homes own more media technologies than their analogue terrestrial counterparts. Cumberbatch et al.'s (2000) researchconfirms this finding. It suggests the most prominent differences between the two types of TV households were for television related technologies and particularly number of television sets, widescreen television and video games adoption, and ownership of computers and computers with internet access (ibid., pp. 17-18). DTV households overall own more media goods compared to analogue multichannel households at large.

---

[126] Towler, R. (2001). *The Public's View 2001*. p. 8. London: ITC/BSC R.
[127] General Household Survey 2000.
[128] Oftel. (2000d). *Consumers' Use Of Mobile Telephony, Summary of Oftel Residential Survey*. August 2004, p. 4.
[129] Oftel. (2000c). *Consumers Use Of Internet, Summary of Oftel Residential Survey*. August, 2000, pp. 2-3. Figures of Household internet adoption continued to grow, however, and from 28% in August 2000, reached 30% in November 2000 and 34% in February 2001. PC home ownership moved from 45%, to 46% to 48% in February 2001 (Oftel, 2001).

Table 6.4 **Percentages of households with number of various media**

(N=698)	None	One	Two	Three or more	Total with one or more
TV	-	9	31	60	100
VCR	3	43	35	19	97
Games machine	50	34	11	5	50
Camcorder	60	38	2	0	40
DVD	77	21	2	0	22
PC	35	52	9	4	65
Modem/internet link	44	48	6	2	56
Radios	1	13	20	66	99
Stereo/CD player	4	37	28	31	96
Walkman/Discman	34	34	21	11	66
Telephone	2	44	34	20	98
Mobile phone	18	33	30	19	82
Mobile with internet	88	11	1	0	13
Fax machine	80	19	1	0	21

The availability of media in FGDTV households was related to socioeconomic status (table 6.4a, appendix 6). With respect to traditional and mainstream media, which had already reached a critical mass, such as VCRs, telephone receivers, radios, stereos, CD players, games machines social class did not seem to affect ownership.[130] But there were significant differences between low, medium and high socioeconomic households in their possession of some new, and of some older, media of the time. Thus, low socioeconomic status households were less likely to own a PC and have internet access, less likely to own portable equipment such as mobile phones, camcorders, Discmans and Walkmans, and less likely to own DVD players and fax machines. Here, the FGDTV survey findings seem generally to support diffusion theory, which suggests that low socioeconomic groups are generally slower to adopt new technologies, although in the case of the technology under study this does not apply.

Households with children were more likely to own media technologies than households without (table 6.4b, appendix 6). Children in the household was a significant factor for the availability of all media apart from telephone receivers, which had

---

[130] Arguably socioeconomic parameters have likely played a role in their early days before these media reached a critical mass, and perhaps through the years subtly and seamlessly influenced commonsensical views about these media and the way they are perceived and used by later generations.

173

unanimous appeal, fax machines, which can be considered media specialised to adult needs, and DVDs, which at the time of the fieldwork had a low penetration in UK households.[131] This finding is validated by Cumberbatch et al. (2000) who showed that households with children were generally more media rich than those without and 'nearly four times more likely to have video games and nearly twice as likely to possess a video camera' (2000, p. 128). Academic research confirms the crucial role of children in the adoption of technologies in general. Children frequently act as motivators for the acquisition of new media but also as sources of concern that complicate purchase decisions. Haddon (1992) states that parents question which is the best technology for their children to adopt and, after taking a decision, they plan and try to anticipate the changes it will bring to the household. Nevertheless, the presence of children guarantees a higher presence of media in the home and it is often pressure from children that pushes parents to take up the latest technology (see Hellman, 1996 on the VCR), and families with children frequently have a larger presence amongst early adopters. Such was the case for the VCR (Gunter and Wober, 1989; Lindstrom, 1989) and the personal computer (Ancarrow, 1985; Brimm and Watkins, 1985; Gray, 1992; Livingstone, 1999).

To sum up the discussion on the characteristics of the FGDTV audience in the UK, we find that these did not neatly fit the profile of the typical early adopter; that of a young, ambitious, upscale male attracted by new technologies. FGDTV users tended to be older and less well educated, were accustomed to the multichannel experience before joining the digital world and secured a comparatively cheap entry into the digital era. Still they were very fast to take it up and most were ICT rich users. Sky digital was configured as family television, easy and relatively cheap to take up because of subsidies and promotional offers, and as fairly familiar technology since it was anchored on the installed base of the ubiquitous entertainment medium of television. These factors all explain the fast adoption and also the *uniform and unvarying appeal* and early take-up of the service across populations with different social characteristics.

---

[131] 5% in 2000 according to Cumberbatch et al., 2000, p. 19.

Adoption of DTV

I next discuss the process of DTV adoption by its early users, examining specific reasons why they acquired DTV, their sources of awareness and influence, negotiations with other household members, and strategies of acquisition. The following analysis demonstrates, again, that DTV consumers to a large extent approached the 'new' by drawing on what was already familiar; they perceived DTV not as a new/novel medium, but rather as an improved/better medium. Finally, in this discussion of empirical findings, I show that the adoption stage signals the commencement of the consumption and domestication process.

'Going Digital': Why?

Choice of channels and digital picture and sound quality were the most popular reasons given by subscribers to justify their decision to 'go digital' (table 6.5). Thematic programming such as sports and films were also important reasons for subscription to the service. Thus, from the outset of their digital experience consumers valued the new medium as a content and programming provider and embraced its potential for customising viewing. FGDTV subscribers' decisions were not influenced by the interactive features of DTV. Only 12% considered services, such as TV-shopping, banking, email and electronic games as influential incentives. They considered interactivity as peripheral to the core attractiveness of numerous channels and programme delivery, and not central in their decision to subscribe. In all, at the point of decision the FGDTV audience perceived of DTV as an improved medium that would provide them access to more television content and content of their taste.

Men and women had different reasons for taking up DTV; for women the availability of more films and 'Open….' interactive services were more important incentives than for men, whilst men were more likely than women to be attracted by DTV sports and better picture and sound quality (table 6.5). As reasons for subscription, choice of more channels and interactive DTV services were significantly related to age and at the time were more popular among younger age groups.

Table 6.5 **Reasons for taking up DTV by gender and age (multiple response question)**[132] (%)

	All (N=700)	Gender (N=700)		Age (N=676)					
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Wider choice of channels	77	76	79	96	89	77	72	71	71*
Better picture and sound	68	70	63*	78	67	67	70	72	66
More sports	49	52	44*	52	47	50	47	51	56
More films	32	28	39*	26	30	35	32	28	27
Everyone will move to DTV	29	27	31	9	27	29	33	26	32
Interactive services	12	11	16*	22	14	12	16	11	1*
DTV is the future of TV	11	12	8	13	11	8	10	13	15
Need for new TV set	8	8	7	-	2	6	9	14	11

GENDER: Better picture and sound: chi-square=3.812, df=1, sig=0.044, More sports channels/programmes: chi-square=4.222, df=1, sig=.040, More films: chi-square=8.042, df=1, sig=.005; Interactive services: chi-square=4.788, df=1, sig=.029. AGE: Wider choice of channel: chi-square=21.564, df=5, sig=.001, Interactive services: chi-square=12.347, df=5, sig=.030)

Regarding subscription to Sky digital, in particular, as opposed to some other digital provider, choice and channel variety were again important reasons for the subscription decision for seven out of ten participants (table 6.6), followed by availability of free reception equipment, which was an inducement for more than half of respondents and proved the success of the Free Sky Digital Initiative offer for 'catching the consumer'. For a significant 44%, being an existing subscriber to Sky analogue was also important in their decision to switch to the digital service. This was the third most important reason for subscription, and highlights both the significance of 'past' experience in moving on to 'new' and, again, the role of Sky marketing in effectively switching analogue subscribers to digital through offers and other strategies discussed in chapters 4 and 5. The popular, and often exclusive to Sky, sports programming and channels secured by BSkyB was an additional motive for 36% to turn to Sky digital. However, the Sky digital 'Open….' interactive services were not high on the list of incentives for adoption.

---

[132] This table puts together information on a variety of variables and statistics. It presents statistical information derived from chi-square analyses performed in each response option of the question 'reasons for take up' and cross-tabulated by different independent variables (gender and age in this case); and portrays these in one table. This standard layout of presentation is used in most tables with multiple response questions that follow.

Table 6.6 **Reasons for taking up Sky digital by age and socioeconomic status (multiple response question)** (%)

	All (N=700)	**Age (N=676)**						**SES (N=614)**		
		18-24	**25-34**	**35-44**	**45-54**	**55-64**	**65+**	**Low**	**Medium**	**High**
Wider choice of channels	70	87	78	66	65	64	71*	71	70	57
Free Digibox offer	52	61	51	54	53	50	51	53	55	39*
Subscription to Sky analogue	44	26	33	47	48	50	48*	40	48	48
Better sports	36	22	33	35	37	37	45	32	34	52*
Better prices	23	44	29	24	20	22	14*	27	21	16
Unaware of other digital providers at time of subscription	20	13	21	17	22	22	23	22	19	13
Only Sky digital was operating at time of subscription	14	4	14	13	12	16	22	12	15	12
Interactive games	7	13	5	8	6	6	4	8	5	5
Promotional offer	6	-	7	6	8	4	6	4	9	8
TV-shopping services	6	17	7	7	3	5	3	9	3	3*
Email services	3	4	2	3	4	6	-	4.	2	4
Dissatisfaction with previous digital provider	3	-	4	3	1	2	3	3	2	3
TV-banking services	1	4	11	1	3	1	-	1	0	1

AGE: Wider choice of channel: chi-square=12.035, df=5, sig=.034, Subscription to Sky analogue: chi-square=12.822, df=5, sig=.025, Better prices: chi-square=12.719, df=5, sig=.026. SES: Free Digibox offer: chi-square=6.229, df=2, sig=.044, Better sports: chi-square=10.381, df=2, sig=.006, TV-shopping services: chi-square=8.430, df=2, sig=.015

Gender differences were not significant in the process of brand selection. Both men and women found Sky digital satisfied their desire for more programming and programming of their taste, better than other digital providers. However, the lower cost of channel packages and installation of Sky digital, as expected perhaps, appears to be significantly related to age and socioeconomic status. Younger age groups were more likely to choose Sky digital because of its competitive prices, whilst low and medium

socioeconomic status consumers were more likely than more affluent consumers to consider the availability of the free digibox as an inducement (table 6.6).

Consumers' Association research conducted in March 2001 supports the reasons for adoption identified by the FGDTV audience in my survey. Thematic programming and access to sports programming were also key drivers according to the Consumers' Association, and the future switch-off of the spectrum was not an important reason. This validates my findings about FGDTV adopters being keen on channel choice, content and thematic programming, such as films and sports, and highlights the significance of improved picture and sound (Consumers' Association, 2001, p. 23). It also emphasises the lack of interest in interactivity, noting that 'facilities…such as Internet access or Interactive shopping/banking services are viewed as much less important in the overall decision making process' (2001, p. 34). However these findings also propose that the reasons for turning digital, although fairly constant, changed slightly over time. Those who subscribed two or more years before the Consumers' Association survey, which corresponds to when my respondents took out a subscription, stress the significance of more channels and sports programming. However, for later adopters who subscribed to DTV in the three months before the Consumers' Association survey, which are not included in the time-frame of my research, the enhanced services were slightly more important (2001, p. 7, 24). However, the popularity of television-related factors amongst such subscribers was ubiquitous. Extra channels and more choice, sports programmes and picture quality were key reasons for take-up of DTV also according to Mori research (2001. pp. 3-4, 12).

The evidence shows, therefore, that bigger choice, better picture, content, thematic programming, familiarity with these features through experience of multichannel television, and low-cost entry were the five most compelling attributes that drove DTV take-up in the first years. It is interesting that the way DTV was perceived by first generation adopters before it entered their households matches in a way the image promoted by the broadcaster's advertising and marketing at that time (see chapter 5). I showed that the meanings subscribers attached to DTV at the point of purchase and in their justification to subscribe, were similar to the meanings ascribed by the design and advertising and, beneath the hyperbole of marketing rhetoric, were mainly related to the functions and utilities of the new medium. At the level of the symbolic, however, DTV consumers largely did not take on the marketing and government rhetoric on its revolutionary nature, and appeared to have been quite

realistic about what was being offered. This highlights the links between the producer and representation moments in the cultural circuit and the path towards the consumption moment.

'Going Digital': How? Purchase Decision and Acquisition Strategies

I have discussed the reasons why first generation users adopted DTV and which features of the medium they found most compelling before purchase. A decision to buy a new technology is guided by the features of the technology itself, but also by existing knowledge and experience of other technologies, and by cultural, gender, generational and lifestyle factors. It involves the processes of developing awareness and interest in the technology, associated needs or desires, expectations, imaginings of potential uses, excitement and trepidation, negotiations among household members, persuasion or argument, evaluation of competencies, and available economic resources (Silverstone and Haddon, 1996; Silverstone et al., 1992; Green, 2002) Accordingly, when a positive purchase decision is made, the acquisition strategy is set whereby potential buyers require additional knowledge about the product, check for an appropriate brand, plan its spatial context, and imagine how it will fit into their everyday lives. It can be argued that the technology is constructed in specific ways and, at the same time, introduces changes in the moral economy of the household before it is purchased, and through this process of decision-making.

This section addressed the steps taken by FGDTV adopters in their process of decision-making and acquisition. It discusses adoption stages such as developing *awareness* and *interest*, *evaluation* and *trial*, and *final adoption* in diffusion terms (Rogers, 1962, p. 76), and in relation to domestication theory. It is here, in the adoption decision-making, or gaining access moment that Rogers' model meets the design and domestication infrastructure and its 'commodification' dimension, which highlights that commodity transactions and the circulation of novel goods are processes not simply acts that can be reduced to transactions of an economic nature, among random parties (Silverstone and Haddon, 1996; Campbell, 2005). I would propose that the domestication of a technology starts before it enters the household as I attempt to show in a later section.

Developing awareness, evaluation and decision making process

The mechanisms used to publicise DTV after its launch were discussed in chapter 5. Because at the point of purchase DTV was a newly launched technology, public discourse, media coverage and advertising were crucial for raising awareness and shaping consumers' perceptions. In the case of Sky digital awareness raising was significantly aided by the Murdoch press (Weber and Evans, 2002). The important and timely Sky digital advertising campaigns and the 'sweetener' strategies of the digibox giveaways and low cost subscriptions, accompanied by intense media publicity of the introduction of DTV, and the future switch-off of analogue broadcasting signals, meant that the launch of DTV did not go unnoticed by the general public.

The majority of participants received early information about DTV from advertising and the media. Table 6.7 shows that advertising raised awareness of the product for 80% of subscribers (television adverts 56%, other forms of advertising 24%). Word-of-mouth was less effective for initial awareness and information than television and other adverts, perhaps because promotion and advertising at this early period was so intense and overwhelming. Such 'unofficial' sources of awareness and information functioned as a second level of knowledge about the new medium. In relation to prior experience with DTV, more than half of participants had their first experience with DTV prior to purchase (table 6.8), either from watching in friends' or relatives' houses (34%), in pubs (8%), in neighbours' houses (7%) or other places (5%).

Table 6.7 **Sources of initial knowledge of DTV by gender** (%)

	All (N=700)	Gender (N=700)	
		Male	Female
TV advertisement	56	56	57
Other forms of promotion/advertisements	24	26	20*
Friend/ colleague/ relative/ neighbour	18	20	15
Newspaper/magazine article	15	18	11*
Saw it in a shop	13	13	11
From children	10	8	13*
From partner	3	1	7*

GENDER: Other forms of promotion/advertisements: chi-square=3.981, df=1, sig=.046, Newspaper/magazine article: chi-square=4.877, df=1, sig=.027, From children: chi-square=5.287, df=2, sig=.021, From partner: chi-square=19.451, df=1, sig=.000. (table is also in appendix by age and ses)

Table 6.8 **Where did you watch DTV for the first time?** (N=700) (%)

	All	New to multichannel TV	Old to multichannel TV*
At my home	45	31	51
In a friend's/relative's house	34	43	30
In a pub	8	11	7
In a neighbour's house	7	8	6
Other place	5	5	5
In a hotel	1	2	1

*Chi-square=26.316, df=5, sig=.000

The strategy of 'testing out' the new technology is often employed to minimise possible reservations or mistakes in decisions to buy (subscribe in this case). Most subscribers interviewed, either at the point of contemplating getting DTV or after making a positive purchase decision, looked for additional information and for direct experience with DTV from friends and acquaintances who already had the technology. For example, at the time of research, one interviewee, Leary Adamson, was living in Kent with his wife, and had two daughters at university. He was very careful about his decision to subscribe to Sky digital. He explained his strategy:

> L.: It was advertising on television. They used to advertise a lot...That's where I first heard of Sky obviously.
> I: And why did you get a subscription?
> L.: Why? Because people who had Sky had said it was brilliant and I'd been looking at some programmes and thought, yeah, there's variety, and there was an offer on at the time at Dixons.
> I: So you watched some while you were thinking of getting it.
> L.: Yeah. Yes. My brother-in-law in Essex, he's a big football fan and he's got a great big screen and surround sound and all this rubbish…And I was up there and watched the thing, and talked about it… So you speak to people who got Sky to see what it's like, and some people say yes it's great. Yeah. Like every new thing that comes out, you know, then you ask somebody if they got it what they reckon, hm, so the thing that made me decide, because Dixon's had a half price offer. And I thought, you know, I'll give it a try to see what it's like.

The *trial* was not successful for Leary. He cancelled his subscription after a year because, despite more choice and variety, he considered programming standards poor and the service not good value for money. He regretted the advice he had been given and his faith in the recommendations of friends and acquaintances:

> Leary.: People I knew said it was good. But their television taste is obviously different to mine!…I thought I would have found enough, because there's an awful lot of people who got it...Everywhere you look there's satellite dishes, and a lot of people are quite happy with it. Well not me!

Table 6.8 shows that not all subscribers had equal exposure to DTV prior to subscription. Analysis of the survey and interview material suggests that the adoption/purchase experience differed among subscribers depending on their previous television experience. 'New to multichannel television' subscribers, such as Leary, were more likely than 'old to multichannel' subscribers to seek direct experience with DTV before they subscribed. On the other hand, previous subscribers to Sky analogue or cable networks tended more than terrestrial viewers to experience DTV for the first time after it entered their homes. These people were fairly casual about their decision to get DTV, did not seek further information so actively, and perceived it as an extension to their current multichannel service.

Old-to-multichannel subscribers

For Sky analogue subscribers in particular, the need to gather information on which to base their purchase decision was conveniently covered by Sky advertising, magazines and letters. John Hills, married and father of two teenagers, was an existing subscriber to Sky analogue who said that for his family, upgrading to digital was the logical thing to do.

> John.: Yeah, I'd read up about it because I was getting the satellite magazine fairly regularly and they used to have at the time quite a few stuff on Sky and their technologies. So, we got a new television at the time and that was digital and I thought it would be nice to have digital programming to go with it. But whether there was a noticeable difference between that and the old satellite system it's difficult for me to say. But we got digital TV and we thought we might as well get a digital satellite subscription.

For most multichannel subscribers interviewed the decision to get DTV was less momentous than for terrestrial analogue viewers. The former group were used to paying for their television, used to having many channels and were bombarded with information through television advertising. All the interviewees who had Sky analogue were familiar with the future switch-off of analogue signals and the inevitability of a digital subscription. They used random events (such as the break-down of their analogue set top box or the purchase of a new television set), life-cycle transitions (such as moving house or changing jobs) and special offers or deals with Sky digital, as timely occurrences precipitating their unavoidable transition to digital. For them the

switch was perceived as an *upgrade* and an *improvement* to what they already had but also as something that was inevitable. Keith Preston, a 30 year old young professional decided to switch to Sky digital when he and his family moved house:

> Keith.: We had had Sky before and when we moved into the new place we could have stayed with Sky. But digital was the new thing at the time. All the adverts were out and yeah, it was a logical transfer for us…Besides everybody will move at some stage to digital TV. So if we had stayed with the normal Sky we would have had to update at some stage anyway. As we were moving house it seemed a logical time to do it. Because, that was the other reason, when we sold the old house we didn't take down the dish. So we had to get new equipment anyway...It made sense, as we were putting in a new, to go for the most up to date and most recent and modern. Which was definitely Sky digital as opposed to analogue.

For 52 year old Jill Pierce who was living with her 30 year old son, when her analogue box stopped working, this seemed a convenient time to upgrade:

> J.: ...every month they send me a magazine, Sky magazine, with all the programmes in it. And they used to send me letters saying that Sky digital was coming along. And I didn't really think anything of it because I was quite happy with the analogue...But when the analogue broke down that's when I said to Leroy, that's my son, 'ah, I'm not gonna bother get it fix' cause personally speaking I think it would have cost more to get it fix...I think it was easier for me to get the digital. Cause also it was the happening thing at the time, let's put it that way.
> I: Do you mean you also wanted to keep up to date?
> J: Yeah, I wanted to be a bit groovy. A bit with it yeah. As they say in the sixties a bit 'with it', yeah ☺(laughs)

New-to-multichannel subscribers

For subscribers with no multichannel experience the decision to subscribe to DTV was more fraught and was more a family decision negotiated among the adult members of the household. Although the decision to acquire DTV was a family decision for most participants and did not cause much contention among family members, it is clear (table 6.9) that the subscription decision caused more friction and disagreements in new-to-multichannel television households. For these households disagreements figured in 17% cases whereas in old to multichannel households the figure was just 8%. The decision about which specific channel package to choose also had a wider impact on non-multichannel households (table 6.10).

Table 6.9 **Were there any disagreements between family members about subscribing or not to DTV?** (N=700) (%)

	All	New to multichannel TV	Old to multichannel TV*
No	89	83	92
Yes	11	17	8

Chi-square=13.455, df=1, sig=.000

Table 6.10 **Were there any disagreements between family members about which Sky digital channel package to subscribe to?** (N=700) (%)

	All	New to multichannel TV	Old to multichannel TV*
No	89	84	92
Yes	11	16	8

Chi-square=9.911, df=1, sig=.002

Negotiating the channel package

Familiarity with Sky programming, viewing habits and practices divided across gender and generational lines, and a pay TV rationale, were already established in the analogue multichannel environment leading usually to the continuation of the same channel package by old to multichannel television users that turned digital. Keith by explaining the channel package they chose maps out the family's viewing preferences already established in the analogue setting.

> Keith: We've got all the standard plus sports. We don't have the movie channels. We never get the time to watch much of the films or movies...the main thing for me was sport. For the family as a whole it was sports, the additional children's channels to keep them happy and quiet, and obviously the additional UK Style, that type of thing for my wife, to keep her happy.

This extract shows that because of its multiple programme offering and functions, the allure of DTV was different for different household members. In this sense, although a family technology, at the time of decision it was also often approached in an individualised fashion.

New subscribers had to make more effort to find a balance between an economic channel package and sufficient channels to cater to the preferences of all the family members. New to multichannel television subscribers I surveyed were more likely to take up small channel packages, whereas old multichannel subscribers more likely to take up the top-tier ones (table 6.11). However, the majority of participants subscribed to large channel packages; only 16% of those surveyed had opted for the value pack, which gave approximately 15 channels.

184

Table 6.11 **Channel package by socioeconomic status** (%)

	All (N=693)	SES* (N=609)			Subscriber TV status* (N=693)	
		Low	Medium	High	New to multichannel TV	Old to multichannel TV
Value pack (approximately 15 channels)**	16	19	16	3	31	9
Mid-range pack (approx.. 80 channels)**	22	22	19	24	24	21
Top-tier (approx.. 100 channels)**	62	59	65	73	45	70

** These figures do not include the 83 free-to-view channels that were available to subscribers of all packages.
*= Statistical significance. SES: chi-square= 13,261, df= 4, sig= 0.01,Subscriber TV Status: chi-square= 57,450, df=2, sig= .000

However, both types of subscribers/families in deciding about which package to choose, had to face the reality of a monthly fee which, depending on the package chosen, would range from £8 to £36 (see chapter 5). Table 6.11 shows that the size and thus cost of packages was significantly related to subscribers' socioeconomic status, with higher status families more likely than low socioeconomic status households to subscribe to a large (thus more expensive) channel package. Arguably, as shown in table 6.11, the popularity of the top-tier package seems sweeping. It should be noted however that special marketing offers were available that lowered subscription cost of the most expensive packages for the first six months. Also, channels were bundled in such a way that choosing a small package that satisfied all interests was quite difficult (Papathanassopoulos, 2002, pp. 153-154). Access to more than one or two of the most popular channels required an unavoidable subscription to the top-tier package.

Gender and Generational Articulations during Adoption-decision of a Family Technology: Indications of Early Domestication

The survey findings suggest that, before it entered the household, DTV was constructed as a male technology. In most cases it was the male consumer who originally wanted to subscribe to it and who had the original idea. Male subscribers were more likely to say that it was they who wanted the subscription, and female subscribers were more likely than males to say it was their partner's idea (table 6.12, appendix 6). Men were more likely to be aware of and have experience and knowledge of DTV from the media, marketing and advertising; women were more likely to have

heard about it from family members such as partners or children (table 6.7). Shaun Moores' (1996) ethnographic work on satellite television identifies a pattern of Sky television as being desired and acquired by male consumers. Although there are exceptions to this pattern, such as Jean who I discuss later, what is perhaps more significant is how this gender defined desire for DTV was negotiated within the household and what was its impact on the future use of DTV.

The survey findings show that in the majority of cases DTV was perceived as a family technology and the decision to subscribe involved most household members (tables 6.9, 6.10, and 6.12, appendix 6). Where disagreements occurred, they usually involved spouses (77%, table 6.13, appendix 6). However, the analysis of the interview material shows that, regardless of disagreements among household members or a less contentious family decision, decision-making time was crucial for the future appropriation and incorporation of DTV in family life. In the case of either difficult or straightforward family negotiation, the instigator of the idea to subscribe in a way became the *owner* of the technology. In this sense, and as the following analysis shows, it could be argued that it is during the decision-making process that the technology and its future consumption are defined across gender and/or generational lines.

Specifically, the interviews show that the male desire for DTV was negotiated in different ways, depending on the gender and generational make-up of the household, and on the family dynamics. For example, Sylvia Atkinson, a 35 year-old mother of three teenage boys, objected to her husband's idea of getting Sky digital and was quite happy with her terrestrial television. She found herself fighting a losing battle, however, since the four males in the household were avid sports fans and did not want to miss the rugby matches that were only available on Sky. Sylvia explained:

> It was because of the rugby. And all the major tournaments, England games were live on Sky. And of course as soon as that happened, and I think it was for football as well they bought the rights to some big competition…I mean that was it. It was a must have. Not from my point of view, but for the rest of the family.

She argued also that despite her objections the decision was democratic since all the family members apart from herself wanted the service. The decision was helped by the digibox being free. Crucially however this *gender division formed at the decision-making stage* was maintained after the purchase and *affected her perceptions and later use* of DTV. Although she was the one responsible for paying the subscription because her husband spent long periods travelling, she considered DTV the property of the rest

of the family and felt excluded from it. As a result, she did not want to interfere with her children's viewing, had no intention of monitoring their use, and let them 'watch crap and all those rap music videos with silly lyrics'. She was cynical about the service and her family's decision and resented the fact that they fell for clever marketing. She explained why they signed up to the full package:

> Sylvia: When we signed up to it, there were 2 sports channels, Sky 1 and Sky 2, rugby was on one channel and something else was on the other channel. But to get both sports you had to have both, and that was the full package. I think that was the deciding factor. I mean, you know, and that's how Rupert Murdoch is getting rich, isn't it. I mean, he's not doing you any favours ☺ is he?

Sylvia really resented paying for channels that they never watched and would have liked to change the package to receive fewer channels. She never discussed this with her family, however, and simply resigned herself to the fact that it was 'their' television.

In Jane Neals' household, the adoption process was quite different. She was a 34-year-old housewife, mother to three toddlers, and watched a lot of television. Her husband, an upcoming professional, worked long hours and did not have time to watch much television. Jane complained a lot about her husband working long hours and not being there for her and the children. She took care of the household and the children and made most of the decisions about domestic affairs. It was *her idea* to get Sky digital and so she took the decision about the subscription. As she explains 'My husband couldn't care less 'cause he's never at home when other people want to watch TV'. There were no arguments at the point of decision, and her husband thought it was a good idea, but was less enthusiastic than Jane. Because the female and male spheres of activity were very clearly defined in this household making it mostly Jane's territory, and because she was the one who wanted it and took the decision for a subscription, after acquiring it she felt she owned their DTV. Their DTV *consumption* was later consequently *largely determined by* this *gender division* expressed *during the decision process*, and the established matriarchal principles underlying this household's domestic matters in general. For example, her husband had to come up with the following strategy in order to manage to get news updates.

Jane explained how:

> He loves news... He'd be happy to have the news channel on all day everyday…But because I so often have my programmes during the night selected, he can't sit down and watch a whole half hour of news, except maybe at 11 o'clock when I'm going to bed. So when the ads on my programme are on, he can sit there and switch on to Sky News, switch on to the interactive, flick on and read some of it then…So he'll read that for like 3 minutes, then the ads are finished, I go back to watching my show and in the next lot of ads he reads the next half of news, and gets through it.

The moment of adoption-decision is viewed in this section from both the outside of the household looking in, using mainly quantitative methodologies and diffusion perspectives, and from inside of the household once DTV arrived, through interviews but also survey research, and with retrospective knowledge of consumption. It shows how diffusion or adoption decision-making might affect future use. In so doing it shows how, during the adoption decision-making, the diffusion of innovations and domestication approaches intersect.

Conclusion

This chapter discussed the process of DTV adoption by the first generation digital audience in the UK. Concentrating on the point of *before* purchase, and drawing mainly on the survey findings, but also on the interviews, it brings together diffusion theory and the design and domestication infrastructure. What is examined is the path in the cultural circuit that takes us to the consumption moment, and in linking diffusion and domestication studies, this is the moment when the market and the household, the public and private, the macro and the micro intersect.

Chapter 6 shows that DTV diffusion in its early years followed a 'trickle across' pattern. The FGDTV adopters were not typical of early adopters of novel goods. They came from different socioeconomic backgrounds and age groups and cannot be characterised as a homogenous group in terms of their demographics. I have argued that this is a result of both the design and successful promotion of DTV (see chapter 5), which configured the new medium as 'a digital vision for everyone' and provided adopters with easy and economic access, and of the nature of the medium and adopters' interpretation of DTV which, depending on their previous television environment and experiences, attributed to it low or moderate degrees of novelty. Previous analogue

multichannel subscribers were familiar with multichannel television and, thus, perceived DTV as upgrade television. This applies to the majority of FGDTV subscribers. This perception largely influenced the shape of the medium; users switched to DTV because they wanted more, and better, of what they were used to. For new to multichannel subscribers, DTV was also seen as a rather continuous innovation, and despite the new features was perceived as familiar, but better quality television. In general these first FGDTV adopters were innovative and ambitious and fast to adopt, but also rather mainstream and conventional in their reasons for turning digital.

This chapter has also discussed the adoption process, decision-making steps and reasons why DTV was taken up by the FGDTV audience. It shows that DTV was taken up because of its multichannel offering and its thematic orientation and, thus, was approached and appreciated as a television content provider. Adopters approved of greater choice, and individualisation of viewing but were unimpressed by the most innovative features of the new medium in the decision to 'go digital'. I would suggest that this was because the interactive features were only added to the service a year after launch of DTV and were not promoted quickly by Sky (see chapter 5), and also because users who wanted interactivity already had access to it though the internet (see chapter 7). Crucially though, it was also related to the 'staying' power of television, the power of screen entertainment and of habit; the fixed ideas about the role of television as a programme and television content provider which for this generation of adopters were still very much persistent.

Chapter 6 used DTV as a case-study to illustrate how domestication starts before the new technology enters the household. It suggests that it is through the adoption-decision process that certain domestication and future consumption paths are set and because of it. It linked diffusion of innovations with domestication. The further impacts of the adoption-decision moment, issues of domestication and the audience's shaping of DTV through use are discussed in chapter 7 in relation to the 'moment of consumption'.

Chapter 7: Early DTV in the Circuit of Culture: The Consumption Moment

Introduction

This chapter focuses on the moment of consumption. It highlights the uses to which a new medium is put after adoption and once it enters the household. Chapters 4 and 5 discussed DTV as an innovation in the market and chapter 6 examined its progress from the market to the household as people's gain access to it. In this chapter, the emphasis is on how adopters respond to DTV in their household through their use.

More specifically, and in line with the aims of this thesis to study *access* and *use* in conjunction with each other, this chapter examines questions related to *use* and *appropriation* of DTV. Chapter 6 shows that early DTV consumers were quick to adopt and discussed their reasons for adoption. But what happened next? What happened after first generation users acquired the new medium? How did they respond to this innovation through use? How did DTV turn into something particular and meaningful for them through consumption?

Such questions are prompted mainly by domestication theory and are not normally part of a diffusion approach. The diffusion of innovations approach was employed to talk about the process of DTV spread and to examine who adopted FGDTV and why. The limitations of diffusion theory to answer questions like the above and to address the issues of use, appropriation and consumption in the household, were discussed in the theoretical chapter. Chapter 7 seeks empirically to qualify and develop the diffusion approach by drawing on insights from domestication theory. It thus extends diffusion of innovations approach 'beyond the front door', to make it part of the cultural circuit and allow more comprehensive analysis of the moment of consumption.

In chapter 6 it was concluded that FGDTV adopters came from different socio-demographic backgrounds and age groups and cannot be characterised as a homogenous group in terms of demographics. I showed that they were innovative and quick to adopt, but that their reasons for adoption were rather conventional. They were technologically rich yet had an average socio-demographic profile. They took up DTV fast yet mostly because of the multichannel and thematic orientation offered. This behaviour and mix of

characteristics was the result of a number of factors working in combination, such as the marketing of Sky digital promising 'a digital vision for everyone'; the fact that Sky was the first to launch a DTV service; the 'hybrid' nature of the medium that encompassed both old and new services and, thus, different degrees of novelty; the power of established practice and fixed ideas about the role of television as a content provider. Is such behaviour evident and are such factors influential as regards the use of DTV? How was the new medium shaped and how was the FGDTV audience constructed through use? Were they conservative, progressive or traditional users? These are questions that this chapter seeks to answer.

In what follows I present findings on the use of DTV from the FGDTV survey and follow up interviews. I discuss how the majority FGDTV users responded to DTV and sketch average profiles in terms of use of home media technologies, DTV channel and content preferences and use of interactive television services. The aim of this analysis of *media* and *television viewing behaviour and tastes* is to scrutinise users' responses to the innovation and the ways they received and appropriated the new medium, discussing the relationship between old and new patterns of use and consumption and assessing the importance of past experience and practices in the acceptance of new technologies.

Interactive DTV services, in particular, and the use and attitudes of FGDTV audience to them, are examined and analysed in depth. These services were a major innovation in DTV and its attempt towards technological convergence and the analysis produces some interesting findings in relation to early users and their process of consumption. It is here where the question of *convergence* and of whether and how internet use influences DTV use, but also, once again, of how past practice and habit shape new practices come to play. A typology of participants' attitudes to interactivity is proposed. This I produced based on the relationship between interactive DTV use and internet use. I analyse the profile of such use categories and draw conclusions about distinctive characteristics of FGDTV users.

In the late 1990s and first years of the 2000s television and the PC were competing to gain each other's functions, content and qualities (Swann, 2000; Rose, 2000; Noll, 2004). The findings from the FGDTV study and the picture of this early phase in the history of DTV and its uses provide some understanding of the reasons for the developments that occurred, and enable an evaluation and understanding of the emergent digital interactive environments of today.

Choice and Content: Tensions between Old and New

Media use in technology rich households

Chapter 6 showed that, in terms of ownership of media equipment, Sky digital households were advanced and media-rich. Did their *use* of this equipment correspond to this advanced media ownership? Did subscribers show the same degrees of innovativeness *as users* and as adopters? Interestingly as the analysis of the FGDTV findings that follows suggests, for the majority, use and frequency of use of these media tended to be rather 'mainstream' and conventional, with more traditional media being most frequently used.

Table 7.1 shows that television viewing was the most frequent media use, with 82% of respondents watching every day. Telephone use was slightly lower, with 65% using the phone daily. Reading a newspaper daily was a habit for the majority also (60%). Listening to radio and playing CDs and tapes were popular, but less so compared to television viewing. Computer and internet use at the time was generally more of a weekly habit, but with a considerable share engaging in daily use (26% and 17% respectively).[133]

Table 7.1 **Frequency with which subscribers say they use various media^** (%)

	Daily	**At least once a week**	**Once a month or less often**	**Never^^**	**N=**
Watch TV	82	18	-	-	699
Watch videos	3	49	35	12	698
Use pc	26	31	6	38	697
Use internet	17	28	7	48	696
Listen to radio	45	34	11	11	700
Play records/CDs	16	57	18	8	699
Read newspaper	60	30	4	6	698
Talk on phone	65	31	3	1	698

^ Sample is all subscribers. ^^ Also includes those who do not possess the relevant media technologies

---

[133] The frequency of use of these media was not significantly related to key demographics such as gender, age and social class, with the exception of the internet which was related to socioeconomic status (table 7.1a, appendix 7).

First generation Sky digital households used a wide array of media technologies, but most frequent use involved traditional media such as television for entertainment, telephones for communication, and newspapers for information. Additionally they were keen users of radio and music fans. Use of newer media, such as the computer and internet was starting to catch up, whilst VCR use was in significant decline.

It can be concluded that the FGDTV audience, although being innovative as consumers and quick to adopt new media, and living in media-rich households, were not ground-breaking but rather mainstream in their patterns of use of media. Yet there were signs of more progressive media consumption, not only with their purchase and use of DTV but also their growing regularity of use of computers and the internet.

Digital television use

In relation to DTV, in the then emerging digital era, the proliferation of channels and multiplicity of new thematic content was expected to result in quantitative and qualitative changes in viewing habits. The time people devoted to television viewing was expected to rise in response to channel proliferation and their television preferences were expected to respond to increased programme variety. Increased viewing time, segmentation and fragmentation were expected to be the consequences of DTV's multichannel offering. Was this the case for the FGDTV audience? Was the digital television audience different from the analogue audience in terms of preferences and time devoted to watching television? What programmes did they prefer? Were these significantly different from the past? Did they watch a lot of television? Such questions raised by the dawn of the digital multichannel era are addressed in my research.

Viewing time

Research of the time showed that despite channel proliferation and increasing choice, the time people spent with television did not increase significantly. Cumberbatch et al. (2000) on the UK television population suggests that although viewing time increased slightly, levels of viewing fluctuated relatively little. My research shows also that for the majority of first generation Sky digital users, television was the favourite and most used medium despite the multiplicity of media equipment they possessed (table 7.1). Sky digital subscribers, who could then receive the largest

number of channels and programmes in the UK -notwithstanding the fact that viewing time of the overall viewing population had increased only marginally - tended to devote a lot of time to watching television. Table 7.2 shows that 31% of respondents were heavy viewers (watching 35 hours or more a week) and tended to be from low socioeconomic backgrounds. Moderate viewers (15-34 hours a week) accounted for almost half of respondents (48%), whilst light viewers (watching less than 15 hours a week) made up 21% and tended to be from a high socioeconomic category.[134]

Table 7.2 **Percentages of type of viewer by socioeconomic status**

Viewer status+	All (N=696)	SES* (N=610)		
		Low	Medium	High
Heavy viewer	31	42	23	11
Moderate viewer	48	44	45	51
Light viewer	21	14	23	38

+ Viewers watching 35 hours or more in a week are categorised as heavy viewers; moderate viewers are those watching 15 to 34 hours in a week; light viewers watch less than 15 hours a week.* Statistically significant difference. SES: chi-square=45.274, df=4, sig=.000

Channel and content preferences

The delivery of numerous channels and programmes on DTV had some impact on television diets. I examine DTV viewing preferences and whether these were changing radically from those of the analogue era.

The FGDTV findings show that despite the multiplicity of channels and availability of new content alongside the reasons for subscription which centred on choice, picture quality, access to sports and films and on financial incentives, for FGDTV audiences the traditional terrestrial channels continued to be most popular channels. PSB and private terrestrial channels were classified among the favourites for seven out of ten viewers. BBC1 and BBC2, ITV, Channels 4 and 5, received through Sky subscription in digital quality, were the most preferred channels for 70% of participants (table 7.3). This finding is consistent with Cumberbatch et al. (2000) who show the continuing popularity of terrestrial PSB channels for all viewers. ITV/BARB data for 2000 shows that average viewing time of 25.8 hours per week was distributed across ITV 29%; BBC1 27%, BBC2 11%, Channel 4 11%, Channel 5 6% and non-terrestrial/other channels 17% (Cumberbatch et al., 2000, p. 9) confirming 'the pre-eminence of ITV and BBC' (ibid, p. 26).

---

[134] There is no significant association between type of viewer and gender or age (table 7.2a, appendix 7).

Table 7.3 shows that for the FGDTV audience *thematic single genre channels* scored highly in viewers' preferences, with knowledge and documentary channels, movie and sports channels being the most popular. Entertainment *channels of general interest* followed, with half of respondents categorising them amongst their favourites, then a shift to thematic channels, with news and music channels attracting interest.[135]

Collins, Beal and Barwise (2003) find similar viewing patterns in their research on 'channel use among multichannel viewers'. They find clear evidence that increased channel choice did not increase total viewing time appreciably, and also confirm the continuing dominance at the time of the five free-to-view channels. In line with the FGDTV study, the authors conclude that the digital multichannel era audience 'is more fragmented - much the same viewing hours are now spread over more channels - but the patterns of channel use are largely unchanged' (ibid, p. 1). To go back to the questions raised, it can be concluded that viewing habits changed relatively little in response to availability of more channels.

Table 7.3 **Channel preference+ by age, gender, and socioeconomic status** (%)

Channel preference	All	Gender (N=700)		Age (N=676)						SES (N=614)		
	(N=700)	Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
Terrestrial	70	70	71	52	70	72	71	76	64	68	73	75
Documentary/ Knowledge	62	66	54*	44	56	65	66	71	62	61	66	56
Movie	60	59	62	61	66	63	60	55	52	61	59	64
Sports	60	70	40*	44	53	58	61	71	67*	57	63	75*
Entertainment	49	48	53	65	61	51	47	37	47*	49	51	51
News	48	52	41*	13	30	42	54	61	78*	44	49	55
Music	39	38	42	70	60	49	37	13	11*	38	44	31
Children's	20	16	29	44	29	33	12	5	7*	23	22	9*
Shopping	9	7	12*	13	6	8	12	11	6	13	5	4*
Other	5	4	6	4	4	5	8	5	-	4	5	7
Foreign language	2	2		-	2	2	2	1	1	2	2	4

+ Respondents were asked which types of channels they prefer to watch. Multiple response options were permitted
* Statistically significant difference. GENDER: Documentary channels: chi-square=8.451, df=1, sig=.004, Sports channels: chi-square=55.012, df=1, sig=.000, News channels: chi-square=7.110, df=1, sig=.008, Shopping channels: chi-square=5.667, df=1, sig=.017. AGE: Sports channels: chi-square=12.816, df=5, sig=.025, Entertainment channels: chi-square=16.217, df=5, sig=.006, News Channels: chi-square=67.925, df=5, sig=.000, Music channels: chi-square=94.964, df=5, sig=.000, Children's channels: chi-square=60.435, df=5, sig=.000. SES: Sports channels: chi-square=7.775, df=2, sig=.021, Children's channels: chi-square= 6.608, df=2, sig=.037, Shopping channels: chi-square=13.927, df=2, sig=.001

---

[135] Channel preference in most cases was gendered and related to respondent's age. Socioeconomic status had less effect on respondents' channel preferences (table 7.3).

In relation to preferences for particular programmes and television genres feature films were the favourite with 69% of respondents including them among the types of programmes they liked (table 7.3a, appendix 7). Comedy and drama series were ranked 2nd and 4th respectively, and sport was ranked 3rd. We can infer that despite the wider programming provision of DTV, programmes and genres, such as films and sport, which traditionally attracted audiences, remained the most popular content for the digital audience.

The above discussion shows that in its viewing preferences and tastes the FGDTV audience was rather similar to the nation-wide television audience and the analogue multichannel audience it hoped to replace. Acknowledging the differences between the same genres across channels, genres such as films, sports, drama and comedy remained the most popular type of content, and PSB remained the most popular channels. This trend and overall approach to DTV programming shows up in later research on DTV in the UK, with some adopters confessing that 'in the end I watch the same channels and use the TV in the same way as I always have' (Klein, Karger and Sinclair, 2004, p. 4). A relatively similar stance to television derived from Mackay's (2007) participants in the DTV switchover experiment in Ferryside and Llansteffan villages in Wales, a few years later. His qualitative research showed that for many of the participants who took up Freeview[136] 'the pleasures of the new offerings were limited, and their viewing - after a couple of months of digital - had changed little from the analogue days… Despite having new technology their viewing behaviour, what they watched, remained rather like before' (Mackay, 2007, pp. 44-45). The fact that these users were predominately retired, of an older age, and belonged to a later digital audience generation ('the reluctant 50%') and thus not open to experimentation, to a certain extend explains this behaviour. An appraisal of such later users/uses in relation to my respondents, the *first* generation DTV audience, however points to the conservativeness of the latter.[137] Sky digital subscribers despite the variety of channels and programmes, ended up mostly sticking to the mainstream and popular ones, the ones they had always watched.

---

[136] They took up Freeview on the basis of a trial switch off of their analogue TVs conducted by the Department of Culture, Media and Sport.
[137] It should be noted that the two research projects differ significantly. The one was principally quantitative, large scale and surveyed subscribers to Sky digital whilst the other was principally qualitative, small scale and surveyed Freeview subscribers at a later time (2004-2005).

The *persistence* and longevity of particular *viewing habits* evident in the FGDA study are confirmed, as already mentioned, by other research (Collins, Beal and Barwise, 2003). However, the FGDA survey findings also show a trend towards *customisation* of viewing, that is towards *individualisation* and viewers' ability due to technology advancements to form their own personalised media diets based on lifestyles or taste cultures (McQail, 1997, pp. 22-23), and towards DTV viewers' preference for thematic channels though even mostly 'mainstream' channels such as movies, sport, documentary and news. This provides partial support for the audience segmentation supposition following the advent of DTV and even before. Although general television viewing behaviour and preferences did not change radically, subtle changes and interesting trends can be detected in these early days of DTV.

Interactivity Use: Innovative Consumers - Conservative Users

The major innovation of DTV was interactivity. In its early days the expectations surrounding it was overwhelming and promised that the 'dumb box' was turning into a multi-purpose clever terminal. Sky digital interactive services, at the time, looked to the viewer like an enhanced upgraded teletext service or a premature web interface (see chapters 4 and 5) and fell into one of two categories: 'enhanced' and 'online'. Were such services truly revolutionary? How were interactive television services received by the FGDTV audience through use? Did audiences welcome the opportunity to enhance their, till then, linear viewing experience and interact with their televisions? Who was attracted to these services? The less technologically savvy, as intended by policy, or the upscale and technologically updated as diffusion of innovations theory would suggest? I address these questions through information from the survey and interviews. I then propose and discuss a typology of interactive uses based on both data sets.

Online 'Open....' Interactive service

In relation to the questions about the acceptance of interactive television services and their use by the FGDTV audience, the survey findings suggest that the majority were not keen to engage with the interactive offers of their new television service and most did not actively engage with these services.

More particularly, 'Open….' online interactive services did not attract users' interest. Tables 7.4, and 7.4a (appendix 7), show that TV-banking was extremely unpopular, with only 6% of subscribers having ever used the service. Emailing was also unwelcome as only 11% had ever taken it up. TV-shopping through 'Open….' was slightly more popular, with 21% ever using it. The most successful 'Open….' service was TV-games with 16% of subscribers engaging on a weekly basis. Oftel (2000b) research on the use of DTV in August 2000 and BMRB (July 2000) confirmed that interactive services were not popular amongst DTV early users. The relationship between use of interactive online services and key socio-demographics was examined in order to understand to whom each service appealed (table 7.4b, appendix 7). Home-shopping was more popular with women and with younger age categories (18-24 and 25-34 years); and games were more popular with younger participants and low and middle socioeconomic status users.[138]

Enhanced and other services

Enhanced interactive services incorporated in the programming were different. These attracted a reasonable share of users and, over time and as they developed, gained audience. TV viewers were already familiar with analogue forms of such interactivity on television by means of teletext which, as discussed in chapter 4, in the early 80s turned out to be successful and quite popular with users (Greenberg, 1989). The success of analogue teletext was perhaps an early indicator of users' potential interest in such enhanced forms of interactivity.

However, the majority of enhanced contextual interactive services were launched after my survey was conducted and so are discussed only in the interviews. The only enhanced service available at the time of the survey was Sky Sports Active (SSA) and was quite popular and used by about half of the survey respondents (table 7.4, and 7.4a, appendix 7). SSA was more popular with men and, interestingly, more likely to be used by high socioeconomic status viewers (table 7.4b, appendix 7).

---

[138] The findings are consistent with Oftel (2000b) research on the use of DTV that games was the most popular online television activity, more popular with younger users and amongst DE social grades.

Table 7.4 **Frequency of use of interactive services (in 3 groups)** (%)

(N=700)	Weekly+	Ever	Never
Shopping	2	19	79
Banking	2	4	94
Emails	2	9	89
Games	16	35	49
SSA	24	25	50
PPV	3	45	51
Radio	17	23	60

Other types of novelty offered by DTV that can be considered interactive features include PPV and radio. Strictly speaking, these are not enhanced services since their use interrupts television viewing. But they were quite popular, especially among younger age groups. Around half the respondents were taking up PPV monthly (45%), which is indicative of the *trend towards customisation of viewing* and hints at the later success of on demand and catch-up TV. The use of radio was considerable as well, given the early days of the service (table 7.4, and 7.4a, appendix 7).

To answer the questions posed at the beginning of this section on use of interactive services and the characteristics of users we can conclude that interestingly and despite original aspirations and expectations the use of interactive services by first generation Sky digital adopters was rather limited. My respondents showed a *conservative* approach to DTV, and construed it mainly as *multichannel television of an upgraded form.* Also, even though online interactive services were used by a very small minority and with small frequency, diffusion theory's criteria of take-up, apart from young age, were only partially met and depended on the service; for example, games were preferred by the lower SES groups and shopping by women.[139] These first generation interactive television users cannot easily be characterised as uniform or typical early users, but rather as a *mixture of types.*

---

[139] It needs to be noted here, that this observation about the diffusion and adoption of individual elements of DTV and the characteristics of users firstly points to the fact that in a convergent multimedia world, diffusion may not only occur at different levels for different technologies (i.e some technologies might spread to reach later adopters and laggards whilst other technologies only the innovators or early adopters etc.), but diffusion may also occur at different levels for different services incorporated in a multimedium. We may, for example, have higher diffusion and adoption of one element of DTV (games) as opposed to others (home banking), with users of different profiles and characteristics taking up each of these elements/services up (within the general user-base of the medium). Secondly, the analysis of the diffusion and take-up of such individual services, discussed above, attests to the fact that, as argued in this thesis, access is not synonymous to use. One might have access to a plethora of services within a multimedium, but use only some of these.

Internet and past experience as qualifications for interactive TV use

How did prior internet experience influence the use of interactive DTV services? Concerning the importance of *past experience, skills* and *familiarity* in accepting the 'new', it is interesting that users' experience with related interfaces, such as the internet, played a significant role. Despite the limited range and simplicity of these features and the fact that they were designed to offer a 'digital vision' *to everyone*, use of interactive services was slightly higher than average amongst internet users; a finding consistent with Oftel (2000b) research of August 2000. In particular, banking, SSA and PPV were more likely to be exploited by internet users than non-users (table 7.5). This can be explained by that fact that internet users were trained in an interactive world and thus more confident about experimenting with television interactivity. Internet users may have been persuaded by their prior internet experience to try DTV interactivity but, as my interviews show, given interactive DTV's limited scope and primitive technology they either used such services marginally or limited their use to entertainment oriented features and only occasionally.

Table 7.5 **Use of interactive services by internet use** (%)

Interactive services	All(N=696)	Internet users(N=364)	Internet non-users(N=332)
Shopping	21	24	18
Banking	6	8	3*
Emails	11	11	11
Games	51	51	51
SSA	50	56	43*
PPV	49	57	40*
Radio	40	46	35*

* Statistically significant difference. Banking: chi-square=8.059, df=1, sig=.005, SSA: chi-square=12.747, df=1, sig=.000, PPV: chi-square=20.276, df=1, sig=.000 Radio: chi-square=8.194, df=1, sig=.004

I constructed an overall DTV interactive use category based on the use of both 'Open….' online services (at least one) and the enhanced services (SSA), in order to examine in more detail the role of prior experience in shaping new practices. The relationship between internet use and overall DTV interactive use also turned out to be significant statistically. Although the absolute majority of internet users did not generally use DTV interactivity (222 as opposed to 142), it turns out that users of DTV interactivity were more likely to also be internet users (table 7.6). 60% of interactive television users were also internet users and the majority of those who did not use interactive television also did not use the internet (52%).

The participants in my survey were more likely to use the interactive features of television if they had experienced interactivity on the PC/internet. It is interesting that internet use was some sort of precondition for interactive television use, but interactive television did not replace the internet.

Table 7.6 **Internet use by use of DTV interactivity (both 'Open….' and enhanced)**

N (of valid cases) =696	Do not use interactivity		Use interactivity		Total	
	Freq.	%	Freq.	%	Freq.	%
Do not use internet	237	52	95	40	332	48
Use internet	222	48	142	60	364	52
Total	459	100	237	100	696	100

Chi-square (continuity correction) =7.901, df=1, sig= 0.005 (chi-square 8,357, df=1, sig=0.004). Chi-square computed for 2x2 tables. Pearson chi-square= 8.357, sig=0.004

Interactive Use Types across DTV users

Given the significant association between internet use and interactive television use (tables 7.5 and 7.6) I constructed a continuum: FGDTV users were positioned based on the innovativeness of their perception and use of the new technology. Four categories of users can be identified: the 'old fashioned', the 'experimentalists', the 'traditionalists' and the 'interactive DTV users' - the latter divided into 'transitional' and 'converging'. This typology was inspired by my analysis of the qualitative interviews. The categories were also formed through the survey data analysis statistically based on the theoretical conception and possibilities of the relationship between internet use and interactive television use. Table 7.7 illustrates these. Old fashioned users are those who use neither television interactivity or the internet; experimentalists do not have internet experience but occasionally use the enhanced in-programme interactive television services; traditionalists use the internet but do not exploit television interactivity, and interactive DTV users are the 'transitional' who use the internet and only enhanced television interactivity and the 'converging' users who take advantage of the internet and all types of television interactivity, both 'Open…'. and enhanced.

I examine these main categories in relation to the survey before narrowing the analysis to the categories and subcategories of users as they feature in my qualitative interviews.

Table 7.7: **Typology of DTV interactive use**

	Use DTV interactivity		Do not use DTV interactivity
	Enhanced	Both enhanced and 'Open….' Online	
Have PC and/or internet	**Interactive DTV Users**		**Traditionalists**
	Transitional	Converging	
Do not have PC/ internet	**Experimentalists**		**Old fashioned**
	TV entertainment fans	TV participants	

Use Types and User Characteristics - The Survey

Table 7.8 presents the four main categories based on information from the survey.

Table 7.8 **Types of interactive TV use categories**

	Frequency	Percentage
Old fashioned	237	34
Experimentalists	95	14
Traditionalists	222	32
Interactive DTV users (Converging/transitional)	142	20
Total	700	100

Most participants in the quantitative phase of the FGDTV study did not use any interactive television feature or the internet. The 34% categorised as old fashioned are users with basic technology literacy, who were relatively lagging and viewed DTV strictly as multichannel television. They could be described as innovative since they had acquired DTV quite early, but were conventional in their use of it and relatively outdated in terms of their media equipment. Traditionalist users represent 32% of survey participants. They perceived and used DTV only as multichannel television and, as explicated from the interviews, most rejected interactive DTV because they had access to the more efficient alternative of the internet. Like the old fashioned users, traditionalists had fixed ideas about the role of television, but unlike them they had a better alternative for interactivity to turn to. These two non-interactive television user categories account for the majority of users, indicating the low appeal of television interactivity at that time.

'Interactive DTV users' (transitional/converging), those with access to and experience of the internet, account for 20% of participants. This is the most advanced group in terms of innovativeness and interactive use of both media. DTV interactive use was neither as high nor as frequent as internet use, but this group was more open to technological convergence on television and willing to try it. Experimentalist users accounted for 14% of participants. This group had no internet experience, but were innovative in that they were willing to experiment with what was available to them. They so used interactive DTV and preferred the enhanced features on their favourite programmes, e.g. SSA. Like 'interactive DTV users', experimentalists exploited the interactivity possibilities available via television but, unlike them did not have an

alternative technological means for interactivity They simply made the best of what was available.

Interactive user types by demographics

I assessed the user typology in relation to a number of media use and socio-demographic characteristics, explaining their role in shaping such categories, exploring certain hypotheses, and obtaining a fuller understanding of how users divide in such groups.

Given that the typology is based on the innovativeness of users as regards new technology use it is interesting to test the hypothesis, common in diffusion studies, that new technologies are adopted more often by young, male and higher social scale individuals. The analysis shows that the relationship between types of interactive television use and respondent's socioeconomic status is significant. Table 7.9 shows that old fashioned and experimental users tended to be from a low socioeconomic category whilst traditionalists and interactive users (transitional/converging) tended to belong to a medium one. Interestingly, users with high SES tended to be traditionalists (51%) rather than DTV interactive users (transitional/converging) (32%), making the internet use/interactive television non-use category a more upscale one than the interactive DTV users (transitional/converging) group (table 7.9). Internet users who used interactive television (Interactive DTV users i.e. transitional/converging), compared to non-internet users who used interactive television (experimentalists) also differed significantly; with the former being of higher SES.

Thus, within the general mix of types of the FGDTV audience, users oriented themselves to the most innovative features of DTV largely depending on their social background. Generally, television oriented categories of users (old fashioned and experimentalists) were socially inferior to internet oriented ones, with interactive television users and traditionalists having higher SES.

Table 7.9 **Types of interactive TV use by socioeconomic status*** (%). Valid N=613

	Low SES	Medium SES	High SES	Total
Old fashioned	63	31	6	100
within respondent's SES	*45*	*24*	*15*	*32*
Experimentalists	64	33	3	100
within respondent's SES	*19*	*10*	*3*	*13*
Traditionalists	32	49	19	100
within respondent's SES	*23*	*37*	*51*	*33*
Interactive users(transitional/converging)	27	55	18	100
within respondent's SES	*13*	*29*	*32*	*22*
Total	45	43	12	100
within respondent's SES	*100*	*100*	*100*	*100*

*Statistically significant difference. Chi-square= 76.773, df=6 sig=.000

Table 7.10 shows that age and types of interactive television use were also significantly related and that old fashioned users tend to be older (generally aged over 55 years). Most traditionalists tended to belong to the medium age group and composed 33% of those that fall in the youngest age group of 18-34 years. They seem like the youngest DTV use type. Interactive DTV users were almost as young as traditionalists. Interestingly experimentalists, the people open to experimentation, trial and use of television interactivity, were mostly in the middle and young age category. Within these particular categories of users amongst the FGDTV audience, the diffusion hypothesis for young age is thus somewhat supported concerning mostly the old age of the less technologically savvy old fashioned and the younger age of the traditionalists and interactive DTV users.

Table 7.10 **Types of interactive TV use by age in groups*** (%). Valid N= 673

	18-34 years	35-54 years	55+ years	Total
Old fashioned	17	39	44	100
within age in groups	*24*	*26*	*56*	*34*
Experimentalists	32	44	24	100
within age in groups	*18*	*12*	*13*	*13*
Traditionalists	24	59	17	100
within age in groups	*33*	*38*	*21*	*32*
Interactive DTV users (transitional/converging)	28	59	13	100
within age in groups	*25*	*24*	*10*	*21*
Total	24	50	26	100
within age in groups	*100*	*100*	*100*	*100*

*Statistically significant difference. Chi-square= 64.108, df=6 sig=.000

Gender plays no role in how DTV subscribers are organized across use categories. There are more men than women in each of the four groups, which reflects the composition of the survey sample. Yet, as evident in table 7.10.a (appendix 7), both sexes were similarly distributed across all user types.

The presence of children in the family, as discussed in chapter 6, is a positive force for bringing new technologies into the household. But is the presence of children related to subscribers' use of interactive television services? The analysis suggests that this was indeed the case. Table 7.11 shows that the old fashioned category were more likely to be in families without children, whilst interactive DTV users (converging/transitional) and traditionalists were more likely to be in family groups with children. It seems that adults in households with children (parents) are more 'progressive' in their television use, more technologically literate and more likely to perceive DTV as a multi-medium. The interviews showed that parents recognised the need for children to use technology and for them (the parents) to adapt. Helena, a converging user as we shall see, made all kinds of new technologies available to her son. In households without children DTV usually equated with viewing programmes (Leary) but there were cases where interactive services were also used (Jill).

Table 7.11 **Types of interactive TV use by household structure (with/without children)*** (%).Valid N=685

	Household with children	Household without children	Total
Old fashioned	43	57	100
within household structure	25	47	34
Experimentalists	62	38	100
within household structure	15	12	13
Traditionalists	65	35	100
within household structure	35	27	32
Interactive DTV users (transitional/converging)	71	29	100
within household structure	25	14	21
Total	58	42	100
within household structure	100	100	100

*Statistically significant difference. Chi-square= 37.183, df=3, sig=.000

Finally, I explore the relationship between interactive use types and amount of television viewing. It is generally assumed that internet fans watch less television whilst media poor users with no technological alternatives watch a lot of television. Was this the case for the four interactive television categories? How are subscribers' positions towards television viewing and interactivity use related? For people who watch a lot of television, the interactive aspect could be seen as competing with viewing. As regards

the time spend watching, the FGDTV survey findings suggested that participants generally watched a lot of television (tables 7.2, 7.1). Concerning the four types of interactive users specifically, the analysis shows that the amount of television they watched was significantly related to their interactive television use positions; and, as a rule of thumb, the more interactive they were - either on television or mainly on the internet - the less television they were inclined to watch.

Old fashioned users tended to watch a lot of television and belonged mostly to the medium and heavy viewer categories (table 7.12). Non-interactive television users who used the internet (traditionalists), on the other hand, showed the opposite tendency and were more likely to be light viewers. Of the interactive television user groups, with (transitional/converging) or without internet (experimentalists), the former were closer to traditionalists and the latter closer to old fashioned in terms of the amount of television watched. Thus, transitional/converging tended to be more light to medium viewers, whilst experimentalists medium to heavy viewers. Overall old fashioned and experimentalists were more likely to watch more television than interactive DTV users and traditionalists.

Table 7.12 **Types of interactive TV use by TV viewers' status*** (%). Valid N=692

	Heavy viewers	Medium viewers	Light viewers	Total
Old fashioned	39	45	16	100
within viewers status	*43*	*32*	*25*	*34*
Experimentalists	43	38	19	100
within viewers status	*19*	*11*	*12*	*14*
Traditionalists	21	51	28	100
within viewers status	*21*	*34*	*42*	*32*
Interactive DTV users (transitional/converging)	26	53	21	100
within viewers status	*17*	*23*	*21*	*21*
Total	31	47	21	100
within viewers status	*100*	*100*	*100*	*100*

*Statistically significant difference. Chi-square= 30.083, df=6, sig=.000

To summarise the key characteristics identified by this analysis it can be said that most old fashioned users tend to be of medium to low socioeconomic status, of old age, with no children in the family, and watch a lot of television. Like the old fashioned, experimentalists are also of a lower social standing compared to interactive DTV users and traditionalists, and watch a lot of television but are a bit younger than the old fashioned group and tend to have children in the family.

Experimentalists are the group that stands out in that their media and television consumption is largely based on their personal preferences, not on their social stance alone. Similar to Watkins's (2009) underprivileged black and Latino children who use their mobile phones to be creative on line, experimentalists make use of their alternative means of interactivity, even if both groups do not feature as standard users of the internet from a desktop or laptop. Both types of users (Watkins's Latino children and my DTV experimentalists) use the hand-held mobile phone or DTV for online enhanced services because they feel empowered. They are both 'resilient' users in that despite their circumstances they find ways to adapt, to be creative and 'move up the digital ladder' (Watkins, 2009, p. 3). Such groups provide evidence of the fact that apart from standard demographics there are some nuanced ways on which our media consumption is based. Traditionalists and interactive television users have similar characteristics. They tend to be of higher SES, belong to families with children, to be young and watch less television; yet interactive television users are a bit younger and traditionalists tend to watch the least television.

Media use-types in the literature

It should be clear that my proposed DTV user categories are related to Rogers's (2003) adopter categories (innovators, early adopters, early majority, late majority, laggards) in that they concern users' stance towards new technology take-up and use, and in that their innovativeness increases as we move from the least to the most forward-looking category. Innovativeness is judged based on ownership and use of computers (internet) and interactive DTV, the newest new media at the time; their diffusion was happening at the same time and were both competing for an audience and identity. The above analysis shows that, apart from their stance towards new technology, my user types are quite close to Rogers's adopter categories in terms of demographics and household characteristics.

Thus the old fashioned in a sense relate to Rogers's laggards or even non-adopters in being late to take up the new interactive services available on their television and in their socio-characteristics discussed above. Experimentalists match Rogers's categories less well, but can be seen as sharing some traits with the late majority or mass market in that they make efforts to accept the 'new' although their social and technological circumstances do not facilitate these efforts. Traditionalists are related to

the early majority in that they are relative fast to adopt and up to date with the latest technologies; and lastly the interactive television users, as also illuminated in my interviews discussed next, are subdivided into transitional users, as early adopters that are very innovative, and converging users, as innovators who are the most up-to-date technologically users.

Such comparisons with Rogers' categories are only schematic and attempted here so as to provide an indication of which might be considered the most innovative group. It is acknowledged that my proposed categories are derived from the combination of two variables (internet use and interactive DTV use) and thus form a grid and not a continuum as Rogers' adoption categories.[140] Users' positioning is also not fixed on the proposed interactivity grid or typology. The case of Tom, discussed later, is indicative. Tom started as an old-fashioned user, and then turned to experimentalist who was using his DTV for emailing and other interactive activities. He eventually turned to a transitional DTV user when he got a computer and starting emailing from this, whilst only using enhanced interactivity on his DTV. This quality of the proposed typology/grid to allow for the changing positioning of users depending on their resources and experiences of each time, is a quality, that does not apply to Rogers' continuum which is fixed in time according to the moment at which users adopted a new technology. The proposed typology implies that innovativeness and people's response to innovation can be flexible and not fixed.[141] It is not meant to replace Rogers' innovation continuum however, which anyway inspired it, but to attempt a comparison with it and map it onto a grid based on the adoption of not one (as is the mainstream pattern) but two technologies (DTV and the internet).

Also, when comparing my typology with Rogers' continuum, the position of some categories in the typology is not fixed either. For example the category 'experimentalists' has a somewhat flexible position. It may be positioned before or after the 'traditionalists'. Whilst users of enhanced DTV services with no internet experience might be considered more advanced than traditionalists in their interactive DTV use, and positioned earlier in the continuum, traditionalists might be considered more advanced and innovative than experimentalists exactly because they have experience of

---

[140] It is also acknowledged that the proposed typology categories/characteristics are probably skewed towards the internet use variable since this (internet use) is taken as the most innovative attribute/characteristic.

[141] Something that can also be attributed to the multimedia nature of new technologies and the option they grant the user to take up whichever feature or function at the time he/she chooses depending on his/her circumstances.

interactivity on the internet. Because, as my following interviews analysis suggests in most cases, traditionalist users *prefer* the internet to DTV for interactivity and, thus, have *chosen* the most appropriate medium for them, while experimentalists simply do not have the option of home internet; and because the internet was more advanced technologically than DTV, this category of users, traditionalists, is treated here as more innovative than experimentalists. It is thus positioned further along the continuum of old fashioned, experimentalists, traditionalists, interactive DTV users (transitional/ converging). Also, the position of traditionalists in the middle of the continuum does not take account of their social standing which is equivalent to that of DTV interactive users (transitional/converging types).

Livingstone and Bovill (1999) in their Young People - New Media study suggest another typology of *media styles* to describe young people in the late 1990s, related to ownership, time use and preferences for different media types. They classify them as 'specialists' who mostly spend time reading books, listening to music or using the computer, 'screen entertainment fans' who spend most time with entertainment screen media such as television and computer games, 'traditionalists' who use mostly what, at the time, was a traditional 'media mix' such us television, music, magazines, books, and 'low media users' who were not keen users of any medium (Livingstone and Bovill, 1999, chapter 6, pp. 3-10; Livingstone, 2002, pp. 91-92).

This categorisation indicates the ways that young people themselves combined different media available to them to create their media menus. It differs from my proposed DTV typology in that it also takes into account time use, context, content and genre preference, but is similar to my classification as regards the orientation towards traditional, modern, or mixed types of media. Livingstone's (2002) 'specialists' can be considered similar to DTV traditionalists in terms of preference for the computer/internet for interactive purposes and social capital (mostly middle class), whilst 'screen entertainment fans' are similar to DTV old fashioned and experimentalists users given that these are heavy television viewers and more likely to be working class.

Use Types and User Characteristics - The Interviews

As already discussed my typology of interactive DTV users was inspired and directed by my interviews analysis and then examined quantitatively within my survey

participants. The interview analysis allows a detailed exploration of the user types discussed (old fashioned, experimentalists, traditionalists, interactive DTV) and of the subcategories of transitional and converging in the last category.[142]

Table 3.2, appendix 3 shows the distribution of interviewees in these types. The majority are in the traditional and transitional categories indicating their transitional and 'in between worlds' status. Below I present interviewees as representatives of each use-type, discussing why and how they fit their classification and examining some more of the characteristics of each category. This throws light on the deeper reasons for users adopting their positions towards DTV and how they appropriated and incorporated interactive DTV into their lives, detail that the survey analysis does not reveal.

Old fashioned

The 'old fashioned' users are represented by one interviewee, Lisa Robinson a divorced 36 year old living with her 7 year old daughter. She was not particularly technology savvy and only used television as a multichannel television for watching her favourite programmes. She did not have a computer or access to the internet but sometimes emailed on friends' computers. Lisa said she did not feel the need to put any effort into acquiring skills for using new technologies. She adopted a lazy approach and was a user of whatever (out-dated) technology she had access to, such as the telephone, television and radio. Her case shows that old fashioned can be considered *laggard* in terms of available financial resources *and* lack of desire or curiosity to try new technologies.

Experimentalists

Jill Pierce, referred to in chapter 6, is an interesting case of an experimentalist. She was a 52 year old cleaner, divorced, and with modest financial resources, who tried to do the best for her son. She had no computer or internet experience and explained that, at her age and in her circumstances, she did not feel that this was causing her to miss out on anything. Jill was a television fan and quite happy with her television menu. However, being financially and media poor did not mean she did not experiment with what DTV offered. She did not use the 'Open….' online service because she did not know how to, and felt no need to find out. In fact, she did not understand what all these services had to do with her television. However, to get access to more of her television

---

[142] These were not processed quantitatively in the survey analysis because of the small count of each subcategory composing the overall 'Interactive DTV users' type.

favourites, she would go the extra mile and use the enhanced interactive features. She used Sky News Active to get more news on particular events; entertainment features on documentaries, and the Big Brother interactive red button to vote on contestants. Jill explained that DTV provided added value in the form of prompt information:

> Analogue was quite boring…You didn't have an Active button…you didn't get none of that to get the latest news. But I did watch quite a bit of CNN when the twin towers were hit…I watched Sky News and CNN. I couldn't leave it…I use the Active red button to check up on things…I find the more information they give, I think the better…I think it can be quite helpful rather than just sitting there just watching the screen. (Jill)

Although Jill was a firm believer that television is a relaxation laid back medium, and although she had no prior computer or internet experience, she would occasionally use the enhanced services to *upgrade* her viewing.

Traditionalists

John Hills, also referred to in chapter 6, used the internet mainly for communication, emailing, chat and msn, but also for downloading music and games. He had tried the 'Open….' interactive services but found them slow and time consuming and had not got into a habit of using them. He, Keith Preston and Greg Russel, preferred to use the internet for these types of services because it was much faster. John Hills found enhanced services annoying because they distracted him from the programming and interrupted his concentration. Keith Preston said that: 'It's too much hassle; you really want to sit back and just watch whatever's on'. For all three of these traditionalists, television was for relaxation and unwinding, whilst the PC was about work, adrenaline and action, administrative chores and communication. The internet was superior technologically, more efficient, and easier to use for these purposes. Like most traditionalists John, Keith and Greg had *preconceived ideas* about what each medium was and commonly used for.

Paula's being the mother of two babies defined her lifestyle and media consumption. She did not use the enhanced services because as she said she was always tired and preferred just to watch programmes. She also used television to relax and unwind, to be entertained without having to make an effort. She said that:

> I've seen that red button sitting there…and I've never pressed it. I've not felt I want to know any more than I'm already watching...Mark did once, and some words came up and I thought "I'm watching a programme, I don't want to read

about it!"…I just can't be bothered...I haven't got the time or energy...I'm usually watching the telly half switched off. So to actually add any more information to what's coming in would just be too much for me…it's just tiredness and can't be botherdness' (Paula)

She did not use 'Open….' online services, preferring the internet for these tasks. Paula, like many others, did not want to mix or cross between media, did not care about a multi-modal stance towards television, and persisted with the traditional mode of viewing which for her guaranteed the entertainment value.

In the case of Nick Boder, a 26 year old student, it was his flatmates that decided to go digital. Nick was media literate and a competent user of new technologies. He too, however, had set perceptions about the functions of each medium and did not see the need to mix them or cross between the two. Like the other *traditional* type users referred to above he saw *television* as being for *relaxation* and *entertainment* and the *internet* as a *work or communication tool*. Nick was also concerned about the cost of such services and therefore reluctant to try them. He assumed that their use entailed an extra cost, something that was not the case for most services, and, therefore, was losing out on the opportunity to have a 'taste'. His lack of information was indicative of his lack of interest in and need for these services.

To summarise, the 'traditionalists' have computers with internet and regard DTV solely as television. It turns out that technology literacy is an important factor in relation to users who used the internet but not interactive television. What is interesting is that their digital literacy was one of the reasons why they did not use the latter for long. Their familiarity with internet interactivity meant they regarded the interactive television service as technologically inferior. They justified their view and non-use by citing interactive DTV's technological faults. They found speeds to be too slow, time for downloading too long, range of services too limited,[143] and difficulties connecting to the service too great. Also, this group of users generally had firm, rather traditional perceptions about the functions of each medium and turned to *television for entertainment and relaxation* and to the *internet for communication and administrative type of chores*. Unlike interactive DTV users, and despite their higher socioeconomic background and technological capital, traditionalists were less flexible or creative in their television use.

---

[143] Range of online retailers, banks etc.

Interactive DTV users

In line with the above comparison, we should note it is not that interactive DTV users do not conceive of television as entertaining or watch less television. DTV interactive users, whether transitional or converging, compared to traditionalists seem to present higher degrees of curiosity (in pressing the red button) and less persistent habitual modes of passively watching television

- *'Transitional'*

Some transitional users press the red button on their favourite programmes, others, such as Phil, prefer just to watch the programme 'straight up'. Transitional users exploit enhanced features depending on their mood, mind-frame and whether the programme or genre invites interactivity.

Jane Neals, 34 year old mother of four referred to in chapter 6, explained:

It depends on the programme …for example the Walking with Beasts, that was a whole interactive experience. There are like five different things you can find out; this was really good fun…But the things I really settle down and enjoy watching are like dramas and comedies...but they're all telling a story and I don't want to be fussed about where I'm seeing it from. I just want someone to do all the choices in that way for me. (Jane)

She, like most traditionalists, said she did not need online services on television because she has more efficient means (internet), which she was using before getting DTV. Phil Jackman, aged 37, also did not use 'Open….' because the *internet* was there *first* and he developed the *habit* of shopping and emailing using the internet. He found it easier and safer than DTV which he considered technologically inferior. He had no objection however to using features that improved viewing of his favourite programmes. Since he is a sports fan he regularly used SSA for replays or additional information, but was not keen to be disturbed by the service when engrossed in a very good game.

Tahim Lallah was a 23 year old student, a keen user of the internet which he used mainly for his studies but also for entertainment. He found television captivating, considered it is there purely for entertainment purposes. Tahim considered the internet had matured to the point where it could not be replaced by interactive television: 'TV cannot be used for working purposes when the internet is so much more advanced and

given that it was there first', he said. He did not use 'Open.…' online services, but was a big fan of news and Sky News Active which he used regularly to complement or update or enrich the news story he was following. Mark Wooding, a 28 year old research consultant, even though old fashioned in that he is an avid book lover is also *transitional*. Like Tahim, he does not use 'Open.…' because of the inferior technology, and also because he considers television is there to be watched. Like Jane, he contends that television is a *social medium* and thus not appropriate for solitary interactive experience. Like Tahim, Mark used enhanced services to elevate his viewing of programmes he was keen on. He used SSA occasionally to review instances of football games. Transitional users have similarities with both traditionalists and converging. On the one hand, like traditionalists, they definitely prefer the computer/internet for online tasks, but would also experience enhanced television interactivity like the converging.

- *'Converging'*

Tom Allen (age 43) is an interesting case in that he had changed his consumption and media status a number of times since getting Sky. He is an *'atypical' converging user* and exemplifies how 'resilience' can enable movement 'up the digital ladder' despite low cultural capital. Tom is a working class, but ambitious individual. Originally old fashioned with no computer or internet connection Tom felt he was lagging. He got Sky digital for its interactive 'Open.…' services which he assumed would compensate for not owning a computer with internet. He was using television both as multichannel and as a computer, to satisfy his need for entertainment and for communication with his colleagues via 'Open.…' email. Being a football fan, he was also using the enhanced SSA. Eventually he bought a computer with internet and then turned to it for emailing because he found it superior; he virtually stopped emailing via DTV. Nevertheless Tom developed the skills to use DTV both for entertainment and administrative tasks even without prior computer or internet experience; and even if he later chose to perform the latter on the computer.

Helena Pandelidis, on the other hand, is a *typical converging user*. She was a 46 year old property manager who had the latest technologies and was excited by anything 'new'. She was an information seeker, liked to watch television but was not a 'couch potato'. Keen to learn new things, she had tried all the television services, pressed the red button whenever available, and checked what was on offer. She said that since her

first successful experience with the red button in 'Walking with Dinosaurs', she tended to use this feature whenever it was there:

> I think it's brilliant…because...I think we're all information junkies and the more information you get the better. And I just feel it does enhance the experience...It's much more fulfilling than just a basic type of programme…it makes it slightly more three dimensional. It's very easy just to watch a flat screen, switch on and off...and you probably fall asleep. But this way...it gets you more involved, and in the end you get more out of your viewing. (Helena)

She used both enhanced and online 'Open….' services. She was not a particular fan of the latter though and used the computer/internet for most tasks. Helena is interested in trying things, but is clear about what she prefers. So she sometimes played games or even emailed on television, but she would rather do that on the internet because it is a more advanced technology.

We can conclude then that Interactive converging users *are not* particularly *loyal users* and prefer to use the internet for several tasks. The analysis shows that apart from *technological efficiency*, *prior experience* and *familiarit*y with the internet plays a role for transitional and converging users. These two groups may try out interactivity on their television, but prefer the internet over it. They might use television interactivity occasionally, but are not committed to it.

Power of habit and the endurance of preconceived ideas

Despite the differences highlighted above, all these types of users had a common characteristic. They had preconceived ideas about DTV and the internet, regardless of their use or socio-demographics and even though some, like the converging users, for instance, were more flexible about using both. Despite attempts to converge the functions of the computer and television, the participants *equated television with entertainment and relaxation* and the computer and *internet* mostly *with information gathering, administration and work tasks*. The first was perceived as a 'lean back' and the second as a 'lean forward' medium. For most participants, the first was a 'passive' and the second an 'active' experience that required engagement and concentration. The first was frequently a social activity, the second was personal. This persistence of fixed ideas and the power of habit, but also this layered typology itself -from old fashioned to modern, from slow to fast adopters, etc.-, shows that changes to patterns of use do not

happen swiftly but are gradual. The proposed typology shows the seeds of this slow and gradual change in consumption and use of first generation DTV audiences.

The proposed typology of users points to the *tensions* evident in this first generation of DTV users. It highlights who was more *conservative* and who was more *progressive*; who was more *firm* and who more *flexible* and with what consequences. It shows the role of habit and prior experience and of competition from other media in allowing users to develop and set new use patterns. I would suggest that this typology could be applied to other media forms and types. Its relevance for how users engage with the current media environment is discussed and assessed in the concluding chapter.

Conclusion

A Medium and an Audience 'in transition'

Chapter 7 investigated questions related to how DTV and its interactive services were received by the FGDTV audience and translated into use; whether they were welcomed as revolutionary or treated as uninvited; whether the opportunity of enhancing a linear viewing experience was taken up or not and by whom.

The analysis in this chapter supports the argument that early DTV and its first generation users were between the analogue and digital worlds; they were positioned between continuity and change, individualisation and shared experience, excitement and fear of the 'new', increased provision and underuse, experimentation and habitual use. It showed that despite possible intentions DTV and its use was not radical and did not change television viewing overnight. However, its users made some first, important steps towards entering a fully digital world. After all the *shift* to new user practices is usually *gradual* 'as a result of a constant interaction between the user and the technolog[ies]' (Van den Broeck et al., 2007, p. 39). In chapter 6 I argued that FGDTV adopters, despite being innovative in taking up this new medium, were a mixture of types in their socio-demographics. Early Sky DTV appealed to people from all walks of life. First generation Sky digital *adopters,* on the whole, were rather *conservative* as early *users*; and shaped DTV as 'advanced' television. As consumers, they were atypical by and large; but within their totality subcategories were identified in my typology which more or less abide to Rogers' innovation adopters categories. In the

FGDTV audience, 'innovators' and 'early adopters' coexisted with 'late adopters' and 'laggards'. Conservative uses were dominant, but coexisted with innovative ones.

Chapter 7 has shown 'access does not equal use' and we can conclude that despite DTV's fast diffusion and adoption, and despite promotional discourse, expectations and audience excitement to take it up, its early use suggests it was mostly constructed as *upgrade* television. For early users DTV remained a screen and spectator medium, not an interactive tool. This treatment of DTV by the first generation audience, the prominence of the viewing practice and the persistence of traditional use patterns, despite the novelty and new features available, point to fact that television is resistant to change and that the convergence attempt in these early days was bound not to succeed. Television is not just a technology but also a cultural form, deeply rooted in the context, practices and realities of everyday life (Williams, 1990). And according to participants, DTV interactivity was not deemed compatible with this context, or the practices and realities of their television habitual use. The selfish use of television as an interactive tool deprived other members of the household from the opportunity of watching television; engaging in online conversations and emailing through television in a public setting deprived the user of the privacy needed for such task; using the television set as a tool that requires some action deprived the user of the leisure and relaxation associated with watching television for several years and many audience generations. The 'laid back' and the 'lean forward' positions of DTV could not be easily reconciled by the first generation audience. Convergence then did not appear to be persuasively set around television. Interactivity was from the start more popular on the internet and based on the number of television channels, web-TV links, etc. now available online (Ofcom 2010a) the internet seems to have won the convergence battle with DTV.

For the case of FGDTV, *media habits* and *values* related to television viewing, such as entertainment and relaxation, played a major part in the consumption moment of this new medium and the way DTV was shaped by early consumers. It seems that BSkyB aimed for interactive services to be simple, undemanding and entertainment oriented. Sky and Sun's (the company behind 'Open….') 'vision of interactivity treat[ed] TV as a unique entertainment medium'.[144] It is also true that the FGDTV consumers did not turn out to be 'converged viewers' who used their television sets as

---

[144] 'Not that anyone involved thinks the TV and the PC will merge. Television is an entertainment medium', according to Jan Steenkamp, CEO of OpenTV. 'You go to television like you go to a movie house. You go to the Web like you go to a library. One smells of popcorn, and the other is quiet' (Rose, March 2000, p. 2, Wired).

computer screens, but were not 'couch potatoes' either. Television interactivity was neither a success nor an absolute failure. Something in between happened that we could see by researching and talking to Sky digital early users. These became more abundant as regards their television content, but also more (inter)active as regards content they were interested in. They became more prone to enhance and upgrade their experience, depending on their mind-frame, if and when they wanted to. Changes to viewing modes and use patterns began to take off and there are early indications of *personalised viewing* and *customised scheduling* in my research findings. However, users' perceptions of television did not change that quickly at the time. Television still offered entertainment and relaxation through the viewing practice.

The FGDTV audience shaped DTV as an *incremental innovation* and early DTV largely *reversely* re-mediated television; that is, it was a case of the *'old' shaping the 'new'*, of television largely shaping digital television. DTV users wavered between traditional patterns of viewing and new patterns of use. They still watched PSB channels, sports, and films, but also watched thematic content. They did not use online television interactivity, but some would use the enhanced contextual services. The FGDTV audience rejected television interactivity when it detracted from those very qualities they associated with television: watching programmes, being entertained and relaxing.

As it turned out such first generation users did not easily fit into one pattern of demographics, adoption and use behaviour, reasons for adoption or in-home technology, and cannot be characterised as other than a 'transitional generation' as the proposed user typology suggests. To paraphrase Livingstone (1999), the identity and character of a new medium does not depend only on its technological capacities, but depends significantly on its shaping through consumption and, crucially, through the other moments in the cultural circuit and their legacies. The media promotional discourse, governmental discourse and Sky marketing discussed showed what DTV could become for its users. Here, both the survey and interview analysis, drawing on social shaping and domestication principles, revealed how users took the meaning of DTV from the representation moment, what DTV was and how it turned into something particular for them; an *upgrade* to their old television. We see that DTV's shaping through consumption was relatively compatible with the key reading offered during the representation moment, discussed in chapter 5, and perhaps this continuity was necessary in the early days of the medium.

The consumption moment in the DTV circuit is theorised here not as very creative or transformative, but rather as conservative and largely reproducing attitudes, habits, preferences and behaviour already present in the analogue multichannel television era. However the consumption moment and domestication process were not static. Despite rather conservative use of DTV, participants were actively (re)negotiating their relationship with other media, namely the computer and internet. Thus, another change in the domestic infrastructure and society at large did start to take place however slowly, gradually and subtly. This change, the constant interplay between various media in our media environment, and how we moved from the *transitional generation* studied here to the contemporary *digital generation* are discussed in the concluding chapter of this thesis.

Chapter 8: Conclusion

Introduction

This chapter summarizes the main findings and arguments of the thesis. I review the main points related to how and why DTV spread, was taken up and used in its early days by the FGDTV audience in the way that it was. I discuss the approach taken, review key themes and the findings and implications of my research and summarize the main arguments in the thesis highlighting its contribution and historical value.

DTV was launched in the UK in late 1998 and by 2010 became the dominant mode of television technology. The analogue signal switch-off is due in mid-2012. The research for this thesis looked at how DTV started and examined its diffusion and adoption by early users in the UK. It looked at the beginning of a process and invited us to look back. Its historical focus is clear.

It is important to view the analysis and findings presented in this thesis from the stand point of today, which is end of 2011, and of what has happened since the early DTV days. Chapter 7 suggested that early DTV was a case where convergence was not persuasively set around the television and where the 'laid back' and 'bent forward' positions DTV proposed were not keenly accepted in practice by users. The case study of the early circulation and use of this new medium shows that, despite initial intentions, expectations and hopes, convergence in practice is not about melding a group of different media into a single one (Jenkins, 2006, 2001; Stipp, 1999) or about incorporating the forms and functions of one medium into another in order to fully replace it. Chapter 7 showed that features of one medium may be attached to another but need not and cannot necessarily replace it completely for the reason that *use habits*, *mind-sets*, *perceptions* and use *contexts* largely define media consumption. Convergence, it is suggested, is about *complementarity* rather than substitution (Dutton and Helsper, 2007; Bodin, Barwise and Canhoto, 2002; Stipp, 1999). Convergence in the early years of the 2010s increasingly is about both media and audiences within an IT rich environment where various media technologies intersect and work both collaboratively and interchangeably to satisfy entertainment, information and communication needs in a digital media *ecosystem* (Garitaonandia and Garmedia, 2009;

Bowman and Willis, 2003; Jenkins 2001). The subject of this thesis, early DTV and its first generation users, can now been seen as being part of the bigger story of the development of this ecosystem and the creation of digital Britain.

In chapter 8 I review the key themes and findings from my research. I discuss the contribution of this doctoral thesis which lies primarily in its theoretical and methodological approach; and in the fact that it advances diffusion of innovations theory, expanding its theoretical and methodological scope by examining social and cultural processes within the household and people's lives. In so doing my thesis reveals a slice of time in British media and audience history. In this chapter I highlight what can be learned from this first generation of a new medium more generally, by drawing lessons from this case related to new media diffusion and adoption at large. I provide an overview of the changes in the communication landscape since the end of my field research, discuss the plans for analogue broadcasting switch-off, and show the impact of early DTV on later developments. I discuss some limitations of my research and propose ways forward for future research.

Key Themes and Findings: Media Evolution and Users 'in transit'

The specific research questions were discussed in chapters 2 and 3. I sought to investigate the characteristics of the people more prone to adopt a new medium early and the characteristics of the medium itself that lead to adoption. I looked at how a new medium was shaped in its early days by market and household forces. The theoretical concerns in technology development and social change, in how innovations spread through our social structures and everyday lives, how people make sense of the 'new' and what is the role of 'old' frameworks of experience and practice in acceptance of the new are at the core of my enquiry. These theoretical concerns directed the study of DTV *diffusion* and *adoption* through research questions formulated to explore how DTV was promoted, taken up, used and made meaningful in the lives of early users. These questions are important as DTV (on any platform) has reached its late majority and analogue switch-off is nearly complete in the UK. They reveal key factors and moments that have played a significant role in shaping developments, and in influencing the consolidation of a DTV culture.

In the chapters of this thesis I revealed DTV's shaping and identity, DTV culture, in its early years in the UK as it emerged in the production and market place, through history and its ancestor analogue multichannel television, through advertising, marketing, policy initiatives and government discourse, and in the household through use. Overall it was shown how initially DTV was taken up fast yet soon followed a 'trickling across' the population pattern – as opposed to 'tickling down' the socioeconomic ladder that is the mainstream trend for technology spread through society. I showed that despite early media optimism and market expectations (Weber and Evans, 2002; Curran, 2009) and audience excitement to take it up, early marketing and Sky advertising of the time mostly emphasized the multichannel element rather than interactivity, and DTV use was fairly conservative rather than innovative. DTV was regarded as *upgrade television*. These early images and meanings created through representation and consumption of DTV, hardware design and market choices were significant for the evolution of the medium that pushed it in particular directions, discussed later in the chapter. Note, that as highlighted in the introduction chapter and chapters 4 and 5, at the time of investigation DTV was being promoted by different interest groups in different ways. The promotional discourse of DTV consisted of the media discourse and government discourse, both emphasizing new services and focusing mostly on interactivity, and the marketing discourse of Sky digital that in its early days prioritized the television element of DTV, the choice of channels and the programming. Two simultaneous and somewhat different stories were promoted; one more radical and innovative and one more conservative and relatively mainstream.

More specifically, after discussing my theoretical and methodological framework in chapters 2 and 3, in chapter 4 I reviewed the broadcasting environment from which DTV emerged, and highlighted the significance the *past* exerts on *the future*. The chapter revealed that the digital era was accompanied by government rhetoric similar to that in the multichannel analogue era, which equated technological development with progress and economic growth; and was a continuation of the Thatcher government's policy of commercialization and light market regulation (Galperin, 2004) leading to excessive competition and the dominance of BSkyB. Chapter 4 suggested that in terms of content and technology DTV was an expansion of analogue television forms. In these respects, despite attempts to converge television with the PC and internet, DTV after all was a very close relative to multichannel analogue television, to its ancestor, than to its contemporary internet.

I have argued that in many respects the digital era is a *continuation* and *evolution* of the analogue multichannel era. However, *continuity* and a relatively smooth transition from analogue to digital television do not necessarily mean that change did not happen. Transformation, and thus change, emerge from *continuity* in subtle ways, gradually over a long period. Chapter 4 showed that the later digital audience was already trained to exploit a multichannel world through analogue cable and satellite television. Thus DTV can be seen as continuing and expanding the *legacy* of the analogue multichannel era, that is, offering familiarity with and appetite for more content, and technology development in a free market equated with progress and profit.

Within such a prior context, chapter 5 analysed how a new technology acquires an identity before it is put into use. It revealed that the early discourse of Sky advertising and the design of the interface and hardware, which was rather crude and more limited than had been promised, constructed users at the junction between the old and the new, the familiar and customary, between the fresh and the unknown, as both traditional and modern. [145] It revealed *tensions between past and future* which reflected the hybrid nature of the new medium (in its encompassing 'innovative/improved'- multichannel - and 'novel/unfamiliar' - interactive services (Campbell, 1992)), and the then state of the delivery company which was still between the analogue and digital, not having yet switched off its analogue television service.

A similar, to a large extent, stance to the new offering was revealed by how the FGDTV audience actually received and shaped DTV through use. Chapter 6 identified the early generation users of DTV and why they took it up. The demographic and media profiles of Sky digital subscribers showed how at that stage DTV diffusion was different from the diffusion of other media in that it trickled across socio-demographic categories. FGDTV adopters were atypical of early adopters of new technologies in terms of their demographics being a mixture of types

This difference is attributed to the characteristics of the Sky *analogue* subscription base which was relatively similar to the average UK population, to the relative popularity of Sky digital across population characteristics, to successful marketing, but also to the general and uniform appeal of the medium of television. It

---

[145] My analysis revealed that Sky, the company, was constructed as a visionary, providing people with what they needed whilst users were constructed as longing for a multichannel experience of choice and control, addressed as empowered through choice and able to 'watch what they want[ed], when they want[ed] it' (as a Sky advertising motto of those days proposed). Sky DTV, was constructed as a technology that did not require much cost or effort on the part of the consumer; as approachable and accessible, and intended for the 'average' person with average attraction to the new.

was suggested that even though the decision to get a DTV subscription involved various processes and pressures, users were attracted to its functionality rather than what it represented symbolically. They approached DTV not as a new/novel but as an improved/better medium; perhaps being influenced by Sky digital early advertising.

Chapter 7 offered an account of DTV use. It showed that although DTV was a novelty with new features and services, it was its *multichannel element and thematic orientation* that attracted viewers. Interactivity through 'Open.…' was not appreciated, but enhanced interactive television features were timidly taken up by a few users. Issues of DTV space/location, relations between household members and interactivity use within space constraints and constraints of privacy in a public setting were discussed amongst reasons preventing use of interactive services such as emails or banking through 'Open….'. Overall, chapter 7 explained the paradox of early users making *conservative* use of their new possession by emphasizing the continuity and path dependence apparent not only in technological but also in consumption terms. Finally, it highlighted that *access does not equal use* (Livingstone, 2002) and concluded that despite DTV's fast diffusion and adoption of the time, its use suggests it was perceived mostly as *upgrade television*. For FGDTV users, early DTV remained mostly a spectator screen medium with some added features. Thus, even though being the *first* DTV generation, these consumers were between traditional and new patters of use. They were users *in transit* between the analogue and digital worlds (also see: Dawson, 2010), same as the state of the delivering company.

It is suggested that the trickling across mode of adoption revealed in chapter 6 explains not only the very fast early spread of DTV, but can also explain this conservatism in both the reasons for adoption and in use and media perceptions apparent in chapter 7. Early DTV was taken up by a conservative majority that rather ignored the pre-launch enthusiasm and government discourse (chapters 1 and 4) but not the Sky advertising discourse which was more about channel choice and less about interactivity (chapter 5). These early users were satisfied with more channels and variety of programming and improved picture and sound.

Trickling across could be a phenomenon that shows that when a new medium is first taken up by the middle or middle to lower (socioeconomic) market and initially spreads very fast, like DTV did, then its use is more likely to be conservative. This is different from the case of the internet and its trickling down. The internet was taken up by the typical early adopter (Atkin et al, 1998, and Cole, 2000 for the US; Oftel, 2000c,

Bodin, Barwise and Canhoto, 2002 for the UK). It seems that the classic elite innovators and early adopters of the internet experimented with the new medium, used it innovatively and pushed its further improvement. DTV first generation users seemed impatient with its early flaws and limitations and not sufficiently curious about how they could make it work better. They did not embrace the novel function of DTV interactivity and probably that way contributed to the prevalence and growth of the internet as regards interactivity. Finally, I highlighted that conservatism in use of DTV points to the issue of resistance to technology (Bauer, 1995) discussed in chapter 2, to the power and persistence of habit and significantly to the power of television and its strength of scheduling, programming and viewing (chapters 6 and 7).

I have argued in this thesis that an array of pressures coincided and a range of factors and actors contributed to the overall shaping and definition of Sky digital and of DTV in its early years in the market and household. DTV was shaped as advanced upgrade television and acquired its early meaning because of a range of technological, historical, political, legal, market and consumer factors, discussed in the chapters of this thesis, which all were part of the circuit of culture. Amongst these moments in the cultural circuit and the paths that link them it is difficult to distinguish which were the most significant contributing factors (du Gay et al. 1997; Johnson, 1986/87). I emphasize some, but would contend that all and their relationships, interactions and complex interplay were significant fundamental forces leading to the definition and identity construction of early DTV and the early establishment of a DTV culture.

Value and Contribution of Approach

Linking diffusion and domestication, and taking diffusion theory into new territory

The objective of the research was to study the diffusion and adoption process of DTV in the UK during its first years (1998 - 2002) and empirically to investigate the 'new' interactive audience. Asides from diffusion of innovations, consumption and audience theories are relevant to this enquiry into how a new technology enters society and audiences' responses to it. But alone these are both limited and incomplete, as

discussed in the theoretical chapter, when one seeks to examine the whole cycle of a new medium circulation.[146]

The *many faces* of DTV were examined in this thesis by linking what traditionally have been considered as rather incompatible theoretical approaches of diffusion of innovations and domestication. This approach advances diffusion theory by charting the DTV market *and* capturing users' lives and concerns using both quantitative and qualitative methods. These different theoretical and methodological approaches are brought together in the circuit of culture that allows the incorporation, discussion and analysis of different moments, forces and locations at work during the introduction, diffusion and take-up of DTV. In analysing early DTV using the circuit of culture, I show how these forces contributed to its social and cultural shaping; this way this new medium is treated as something that both shapes and is shaped, that both has an effect on and is affected by. I focused mainly on the moments of use and consumption but also explored the representation moment and relevant matters of identity, issues of policy and concerns in the moment of production, viewing DTV as a domestic good in the household and as a product in the marketplace.

The strength and contribution of this research is that it demonstrates how domestication insights and analysis of use, consumption and appropriation complicate and develop the diffusion approach. The research in this thesis constitutes a diffusion type study but builds on insights from domestication and social shaping theory so that we obtain a better understanding of the introduction of DTV in the UK.

I argue that we need to look at the spread of DTV, we need to look at its marketing and meaning construction in the market and also to look inside the household and look at uses; at the preferences and what the new and old media practices of the consumers are. This way we can have a richer account of how DTV diffuses around the circuit. In other words this approach adds to our understanding of the diffusion process, in its continuity and circularity, making it part of the circuit of culture. This is not a domestication study, and does not reveal fundamental shifts in domestic life or family structures and routines as families incorporate DTV in their lives; despite touching upon some. However, with my use of qualitative interviews I do reveal what DTV is or could be and how it turned into something particular, specific and unique for each user.

---

[146] Diffusion of innovations theory does not go beyond the front door to address issues of use; consumption and domestication studies do not look at where technologies come from and in the past years have been emphasizing context at the expense of use (see chapter 2).

Diffusion studies have traditionally been considered as of quantitative orientation, whilst domestication studies as principally qualitative. However, I propose this does not mean that in order to get beyond the front door - and thus beyond diffusion theory's limitation - and enter the household to investigate the audience, we need only do qualitative or ethnographic work. I suggest we can have quantitative analysis on what happens inside the home, drawing on domestication insights, - and even accompany it with qualitative methods - and this becomes a 'hybrid' approach. The research described in this thesis goes beyond diffusion but is not domestication research. It draws on diffusion type quantitative studies such as Levy and Gunter's (1988) on the uses of the VCR and home video, but approaches my questioning from a domestication angle. Thus the 'narrative' style of the design of my questionnaire to reflect the biography of DTV in the household. Coupled with the qualitative interviews that followed, the extending of the diffusion approach into the household is further enhanced.

More specifically, in using domestication theory to bring the diffusion approach inside the home I have proposed a new, hybrid way of studying technology use in the home, as discussed in chapter 2. This does not begin with the verbal, narrative, observational or ethnographic experiences of audiences or users at home, but with the technology and its entry into the household. I so tell a story of use by demographics and use by choices and preferences. I address the quantitative questions of where it is put, how long it is used for and how it is used, why consumers bought it and how much they liked it. But in my approach and analysis I also reflect the family dynamics, understand the ways in which media content is used for different purposes and depending on the perspective of the couple, the housewife, of the mother in male dominated household, or of the children etc. I raise issues of DTV use within space and use within time structures and life-stages; use in relation to household members' relationships and generational issues, and gendered identities being attached to DTV through use. I reveal a strong sense of the importance of habit and stability and the barriers to accepting and learning something new, evident amongst FGDTV users, and their desire to have bigger, better and more technology but not challenging uses of it. My findings and interpretation show awareness of the feelings, concerns and practices of the household achieved mostly through the survey responses. The in-depth interviews of course also contributed to this. These took place after the survey which means that the survey was not designed on the

basis of the qualitative experiences of users, but rather the qualitative interviews, were used, in an auxiliary mode, to check and amplify the survey findings.

Lessons from the First Generation of a New Medium, DTV

In this section I discuss, what we can learn from this thesis research and this first generation users about DTV in particular and new media and their early users in general.

The old shaping the new – 'Reverse remediation'

Interestingly, instead of the excessive enthusiasm of the prevailing public discourse on DTV and interactivity , Sky's early advertising was more modest and, in the first couple of TV campaigns at least, emphasized content more than interactivity. But also the technology at the time was rather crude. 'Open....' and its interactive features were slow and fairly basic. Audience use echoed the emphasis in the advertising and reinforced the path implied to it by the unsophisticated technology. For the first generation users DTV was *upgraded* television. This confirms the audience's role and contribution in shaping early DTV.

The use of DTV by the FGDTV audience has revealed a tension in the relation between the old and the new. This works in two ways: as a motivator for, and as a barrier to the incorporation of the new. That is, people bring in old resources they have acquired from using older media so as to adapt to the new situation and at the same time old habits persist and do not allow the adoption of new practices.

The adoption of DTV I would argue was a case of path-dependence where the 'old' was transformed into something new; a case of *deeply ingrained habits* of media use persisting and commitment to the *old* attributes of choice of channels and programming being so strong that they determined how the *new* would develop. 'Open....' interactive services did not live up to expectations. This was a case where attempts to bring in the 'new' failed because the 'old' still dominated. In something of a reverse of 'remediation' (Botler and Grusin, 1999), DTV as 'upgrade' television was in a way about *the old shaping the new*. However, and crucially, it should be noted that despite the failure of early interactive television services, the adoption of DTV and of Sky digital in particular was then rapid and instituted the multichannel environment and

viewing as the norm for most UK households. This seamless change, even though not revolutionary or very innovative, is perhaps *one of the most significant transformations* in the contemporary communications environment especially because of its scale.

The discussion above points to three main themes that can be drawn as lessons from this research which can be generalized to other media: *promotional discourse*, *continuity* and the fact that *access does not necessarily equate with use*. These are all related and interconnected.

Promotional discourse and inflated early expectations

This thesis shows that the reality does not live up to the rhetoric and promotional discourse that accompanies a new medium, or innovation, before and during its launch. The examination of the early use of DTV showed that it might have been taken up rapidly, but not all its facilities were equally appreciated. Those related to interactivity, the distinctiveness of the new service, did not attract early audience's interest.

Similar to other technologically advanced new communication media, DTV launch was accompanied by enthusiasm and industry promises to bring major changes and transformations to consumers' experience and to society at large. In both market and academic circles, there were discussions about audience fragmentation, the end of broadcasting as a shared experience, the 'empowered' interactive audience, the decline of public service broadcasting, and the changing nature of television. The McLuhanian notions of the medium being the message or the user being the content (Levinson, 1999) were gaining ground, and some commentators talked about the death of television (Noll, 1999).

The way television is used has expanded but most of these extravagant claims were premature or did not materialize and can be described as technological determinism. Stipp (1999, p. 10) notes that 'predictions about the death of established media have accompanied the introduction of every successful medium… The current discussion is a variation of an enduring theme'. Every decade sees major technological changes accompanied by hasty assumptions, but our lives have not changed dramatically in a day. This observation is not to undermine the novelty value or change-potential of DTV or of new media in general. It is rather to highlight the mismatch between early expectations and claims to change a new medium introduces at an early stage and the actual uses and identity it acquires through its life trajectory, as this thesis

has revealed. Media technologies are surrounded by social processes and the time-scale of technological progress differs from the timing of cultural or social change (Livingstone, 1999). Thus we need to follow a medium/technology through its life trajectory and study its diffusion and adoption as a social and historical process.

To ask why inflated expectations, or 'hype', as Curran (2009) calls the exaggerated promotional discourse of the media, the industry, the government and various interest groups, is usually there in the case of new media pre-launch and launch, he argues, we need to go beyond the surface of new technologies' improved offerings and their potential impact, to questions of power relations, politics and economics and to questions of culture at large, that all influence and are influenced by new media development and growth. We must not ignore the political economy of media innovation. Pre-launch new media promotional discourse is usually a response from *business interests* (Curran, 2009; Weber and Evans, 2002). In the case of DTV it involved BSkyB, BT, HSBC and Matsushita which in the second half of the 1990s, were embarking on interactive DTV ventures such as 'Open....' for example. The Murdoch press, especially, as discussed in chapter 1, was the 'perfect' vehicle to take up the task of publicizing, actively promoting and promising changes in social habits that did not occur (Weber and Evans, 2002).

Curran (2009) continues that promotional discourse also comes from the *politicians* and *government* (Conservative and Labour). Like the Conservative government in the 1980s, both John Major and Tony Blair supported new media and saw them as driving economic growth, employment and a modernized UK economy and society (Starks, 2007, Smith, 2007). DTV was the means for promoting this agenda (chapter 4) and, at least in its early years that this study focuses on, for promoting strong competition and deregulation of television. Mackay (2007, p. 36), when examining the policy discourse on DTV notes that it was'... congruent with the technological determinism, optimism and mythology of active consumers that characterises broader debates about new media'. He argues that the analogue television switch-off, a policy set by the government to fee up the spectrum frequencies for telecommunication purposes, meant persistent support of such a goal from the government since it could not have succeeded if left only to the market. Thus, the government had to find ways to drive DTV take-up; 'not simply to provide a framework for broadcasters and others to develop digital, but to actively promote it' (Mackay, 2007, p. 37) through specific

strategies, bodies and organisations (such as the Digital TV project, the Digital Action Plan, Digital UK) and through the relevant governmental discourse.[147]

Lastly it should be noted that this exaggeration or wishful thinking of press discourse, largely led by corporate and government interests, reflects a persistence of the enlightenment values of progress (Campbell, 1992) and specifically what Curran (2009, p. 30) calls the 'foundational theory of modernity: in particular the belief that science and technology is the midwife of social and economic advance that was central to the Victorian vision on progress'. It thus reflects our need to believe in grand narratives (Mosco, 2005). The concepts of enlightenment values and progress are deeply rooted in the way we organize our thoughts, lives and culture. Often we want to and need to experiment in order to progress; we need to believe in change that will bring a better world, even if it is just a techno-deterministic myth. Mosco (2005) explains that the spuriousness of a myth does not matter because whether exaggeration, fact or fiction myths are stories that take us out of the banality of everyday life and towards the sublime.

It could be that media that are excessively promoted, e.g. cable television in the 1980s and DTV in the 1990s and early 2000s, because of the expectations they raise (amongst investors, funders and consumers alike) are more likely to simply introduce modest, rather than revolutionary improvements. Media such as the internet and mobile phones in their early days did not receive such extravagant publicity and raised fewer expectations but induced moral-panics (i.e. mobile phones are bad for users' health; the internet is not a safe place for online financial transactions; safety for children using the internet, etc.), yet these are the media that have been responsible for huge changes in our daily lives and habits. Future research could examine this reasoning more deeply.

Also particular to DTV early promotional discourse, on top of the fact that it was extensive and had the advantage of also being heavily delivered by the Murdoch press, was the lack of coordination between the market, i.e. Sky digital, and government. This was probably because at different times, different interest groups had different agendas. Marketing and early advertising of Sky focused on switching their analogue subscribers to the digital platform and thus its discourse emphasized more the increased content choice and multichannel attribute of the service rather than interactivity and the information society values of DTV heavily praised by the government discourse and the

---

[147] 'We need to convince people that switchover is good for them' said government minister Tessa Jowell (2003), in Mackay 2007 (p. 38).

press *prior* to launch. Early users in a way went for the straightforward solution offered to them by Sky during launch and developed conservative ways of adoption and use rather than more radical, interactive ones. Even though as regards the fast adoption and take-up of DTV, consumers went for the governmental optimism and media enthusiasm and took up the new medium early, as regard use things turn out differently. The reality of use and consumption did not turn out to be in agreement with the prevailing discourse on DTV. Personal experience and use, and DTV's basic technological offering as regards interactivity, along with other factors such as familiarity with other media, the power of habit and long-lasting perceptions of TV as an entertainment medium already discussed, largely led to a decoding different from that aimed at by media and governmental discourse on the information society's benefits, and shaped the meaning of DTV in its early days as upgraded television.

Continuity and evolution

To go back to the lessons one can draw from this study, the fact that change takes time, mentioned earlier, brings us to the lesson of *continuity*. The continuity in DTV's biography has been discussed and analysed extensively. There is continuity as regards technology development; crucially, there is continuity in the broadcasting forms of analogue multichannel television, namely cable and satellite, which preceded DTV; and there is continuity in use and consumption.

It has been said that technical knowledge and innovation develop in 'path dependent' ways (Rosenberg, 1994, pp. 9-10), and it is true that most innovations are *incremental* or *continuous* and based on improvements to earlier products (Freeman, 1994; Hamill, 2000). Given the analysis on the use of DTV, this thesis argues that the actual use and consumption of new technologies takes place through path dependent activities and past practices, as well. Rasmussen (1999) suggests that our uses of and the practices developed around old media structure our uses and practices we develop around new media.

The thesis argues that *continuity* as a concept is not deterministic despite what might seem at surface. Continuity does not mean something static, but rather something gradual and incessant. It implies change in it, as a concept, yet, a smooth and subtle and not abrupt change; like the quality of change that characterizes most innovations (incremental) and technologies. I argue that, as was shown in chapters 4, 6 and 7, and in

the section above, change happens smoothly and subtly, and is evolutionary (Stoeber, 2004) rather than revolutionary in character. Livingstone and Das (2009, pp. 4-6), in a similar fashion, argue for continuities not only in technology and audience change but also across old and new media studies, intellectual generations and theoretical concepts.

Significantly, I would suggest that change does not usually or necessarily correspond to anticipated or expected changes that the industry and media promotional discourse proclaim. For example, DTV did not produce the converged interactive user and did not merge in user perceptions and behaviour the functions of the television and the PC. But it did bring audience emancipation through choice, and viewers who customize their viewing via the many channels and PPV, initially, and now via DVRs. Such an observation can be made safely in hindsight and with knowledge of what has happened since these early expectations and launch of DTV; yet indications were clearly there, as I revealed in chapters 6 and 7, from the FGDTV audience uses.

Access does not mean use

The fact that the reality and actual change may not *correspond with anticipated change* leads to the third lesson from the first generation of a new medium and its users. It can be rephrased to 'actual uses do not correspond to anticipated or intended uses' or to '*access* is interrelated but *does not equate with use'* (see chapter 7).

As regards DTV, the fast access Sky digital subscribers ensured did not mean use of all or use of the most innovative features. The reasons for it were discussed in chapters 6 and 7 and have mainly to do with the staying power of television; with the power of habit and set perceptions about the functions of television and the needs it is customarily perceived as covering; with issues of continuity and subtle change addressed above; but also with the limitations of the technology of the time and of the 'Open.…' service on offer. The FGDTV users did not use their television as a PC with internet access and had clear perceptions about the functions of each medium. First generation audiences used DTV so as to unwind and be entertained. During my research, it became clear that use habits were changing slightly as viewers were offered more choice and adopted practices to customize their viewing, but their perceptions of what the television was for did not change or not at the same pace. For them watching television was an *entertainment* and *relaxation* oriented activity. This is why they rejected 'Open.…' and received relatively well the enhanced or contextual interactive

features such as SSA, SNA, or others incorporated in the programming. Because they could use such services without interrupting, but enhancing and upgrading their television viewing experience.

In 2000, the PC with internet access was mostly perceived as an administrative tool for work related purposes, for communication view emails and for i*nformation* seeking, and the television was a medium associated with entertainment and relaxation. This has changed since, but the evidence suggests that it is the computer/internet that has emerged as the preferred medium for convergence. It is apparent also that those times of the FGDTV adopters and the early shaping and meaning of DTV created through consumption, representation, production and technology design had an impact on the way things evolved to favour the computer and the internet.

Returning to the fact that access does not equal use, I would suggest that there are several reasons for this. First, because of the multimedia nature of new technologies, we can use some or all of their features. Second, it happens because of remediation, if there are several media that perform the same tasks people use the one that performs the task most efficiently. In the case of DTV we can say that the internet re-mediated DTV's interactive features (such as banking) for some DTV users. Others, when alternative technologies - either new or old - that perform the same task are available, out of *power of habit* will simply use the one they are more used to. Thirdly, 'underuse' (Oudshoorn and Pinch, 2003; Wyatt, 2003; Bauer, 1995) of a multimedia platform might be because of crude technology, or inferior design, lack of promotion, or lack of personal need or other reasons. Finally, access might prevent use because of lack of resources and literacy (Livingstone, 2003) to use the new media technology.

Access and use are increasingly conceived as the same thing by new generations of digital media users. For Watkins (2009) access, in a way, becomes void as a concept when access is continuous and takes place twenty four hours a day. The term 'participation' is used by him to incorporate both concepts of access and use in one. I suggest that both concepts of access and use should be retained, especially because they refer to different stages in the adoption and appropriation of new technologies in our lives. It should also be mentioned, and is significant for this study, that the lesson and condition of access not equalling use is what links diffusion of innovations and administrative perspectives with design and domestication and more qualitative approaches to the study of new media. Knowing numbers and percentages of take-up and adoption rates is not enough if we do not know what people do with the

technologies they acquire and what these mean to them. Note that an in-depth domestication study based on domestication theory could further examine this finding and theoretical suggestion that access does not equal use empirically and take it further.

Ten Years Fast Forward - From Past to Present/Future: Towards Analogue Switch-Off

The thesis looked at the beginning of a process that is nearing completion. It looked at early DTV diffusion and use and focused on the medium of television as it moved from the analogue to the digital era. The research showed what DTV aspired to be, claimed it would be and after all ended up being in its early days: an enhanced multichannel television offering an upgraded experience compared to that that was then available.

This section updates the story of what has happened since the early diffusion and adoption of DTV and positions the findings of the thesis in 2011. It highlights the links between the early era of DTV and the present. It narrating the evolution of digital media since the introduction of DTV, this section pinpoints some developments as implications of the early DTV era.

Since the introduction of DTV many things have changed in the communications technology domain and in the broadcasting and DTV sector in particular; and quite a few have stayed relatively the same. Since 2000 the digital landscape has become more heavily mediated, new technologies appeared and most digital new media such as television, mobile phones and the internet are reaching late majority adopters and even the laggards. Even though it is important to highlight the links between different ICTs in the digital ecosystem rather than discussing them as discrete media, the first part of this section provides the necessary links to how things have changed since the FGDTV study concerning DTV.

Digital television and related technologies

DTV has entered the laggard stage having reached a penetration of 93% of UK households (Ofcom, 2011, p. 6) and 96% of TV homes (ibid., p. 1) and approaching the analogue spectrum switch-off. Its take-up was 92.2% of UK homes in 2010 (Ofcom, 2010a, p. 1) and 89.2% in March 2009 (Ofcom, 2009a, p. 6). High definition television (HDTV) technology is gaining consumer support and Digital Video Recorders (DVR) is

the technology used by many viewers to watch recorded programmes. Both technologies were released shortly after the conclusion of my fieldwork and now seem to be the television related features of the future. Latest figures show that 32% of homes say they use HDTV channels (Ofcom, 2011, p. 3), whilst 5.3 million households have an HD subscription (ibid., p. 6). Concerning DVRs, this can be found in 46% households (ibid., p. 6). The habit of on demand television viewing is well established with a large portion of the television audience. Sky Plus is the most used of the available DVR services and Sky users are familiar with its recording features (BSkyB was the first to launch a DVR service). Latest research from Ofcom confirms the growing popularity of DVR and on demand television viewing showing that in 2011 'among DVR homes, 14% of all TV viewing was time-shifted' (Ofcom, 2011, p. 6).

This practice of on demand viewing allowed by the DVR is similar to that provided by PPV services, which can be considered the predecessor of DVR. It seems that on demand viewing made possible by advanced DVRs liberates the consumer from the constraints of the television schedule, and Sky digital slogan that with DTV you are able to 'watch what you want when you want it' is becoming a reality, 10 years after its conception.

There was evidence of the popularity of on demand practices in the early years of DTV supported by the FGDTV survey findings and the relative success of PPV services discussed in chapter 7. So was there evident viewers' longing to be liberated from scheduling time constraints (something also familiar with the advent of the VCR) and increase their content choice and control of their viewing manifested in their celebration of more channels and thematic programming, discussed in chapter 6. Among other new interactive services originally launched on DTV, listening to radio through DTV at the time of my research was a relatively modest interactive activity (chapter 7). Mackay's (2007) research on a trial DTV switchover in two villages in south Wales, some years later (in 2004-5), found that radio on DTV was much appreciated and a pleasant surprise for later users. This DTV feature, despite the general decline in radio listening, has in 2011 become more common sense for the digital audience; Ofcom figures (2011, p. 7) show that radio listening through DTV accounts for 4.1% of all digital radio listening hours, with the internet following with 3.6% and digital audio broadcasting (DAB) radio sets being a successful platform of delivery with 16.7% of all hours.

DTV time-use and content preferences

Twelve years on, television viewing continues to be a very popular activity occupying an average of 4 hours a day for UK viewers in 2011 – up from 3.8 hours in 2009 (Ofcom, 2011, p. 6). This increased time spent watching television attests to the popularity and significance of the medium in people's lives. Yet the subtle but persistent changes in the broadcasting landscape and the habits brought by DTV and its by now massive take-up are beginning to show. PSB channels remain strong and popular and with an average viewing share of 55% of all homes (Ofcom, 2011, p. 5). However the popularity of terrestrial PSB, that was also overwhelming for the FGDTV audience as shown in chapter 7, seems to show a decline in the national audience. Ofcom (2011, p. 138) informs us that in 2010 '[t]he PSB main channels continued…on a long term downward trend... BBC One and ITV continued to command the highest share of viewing in the UK, but each has seen a sharp decline over the past 20 years'. According to Ofcom (2011) multichannel viewing has been increasing[148] and the multichannel viewing share has risen since 2003, whilst PSB channels' viewing shares declined during this time. Multichannel competition has mainly affected BBC2, Channel 5 and ITV viewing shares. In general, however, daily television viewing levels have risen. Among other new media use, daily mobile phone and internet use show notable increases also in the past years and up till 2011. The internet particularly showed the largest increase in 2010 in average daily use (which went up to 28 minutes daily) (Ofcom, 2011, p. 22). These trends indicate the growing popularity of these two new media across the population.

In terms of programming preference, despite the slight decrease in the PSB viewing share, the genres and types of programmes that were popular amongst the FGDTV audience and discussed in chapters 6 and 7 remain more or less popular for late user generations of DTV. In fact, there is a general increase in the preference for entertainment genres (channels like ITV2, Sky1, Hallmark) in both Sky digital and Virgin media services. Not very differently from the FGDTV findings, children's genres, sports, movies and documentaries follow in popularity although their overall viewing share has declined slightly since 2003 (ibid., pp. 146-148).

Concerning the overall DTV market, this has changed significantly with some companies shutting down, new entrants emerging, mergers, etc. described in chapter 4.

---

[148] Multichannel viewing concerns the pay channels offered by the television provider excluding PSB. Note: in the FGDTV survey PSB channels were included in the questioning as part of the DTV offer.

Sky digital is the only provider to be still in the market since the launch of DTV. It retains a strong presence although its dominance has been challenged by Freeview which has gained more subscribers since 2008.

Switching over

The digital switchover plan set by the government in 2007 to make the country fully digital by 2012 is proceeding. The transition started in Whitehaven and the area of Cumbria in 2007 and by early 2009 had been completed in Exeter. By the end of 2009 switch off was completed in the Scottish Borders, West Country, Wales, and Granada, and in 2010 in the Channel Islands and Scotland (Ofcom, 2010a). Ofcom (2010a, p. 15) stated at the time that the switch-off plan was proceeding satisfactorily and that almost 'a quarter (24%) of homes no longer receive an analogue signal and over the next 12 months a further 4.5 million homes will complete the switch, bringing the programme to 40% completion'. By 2011 the switchover was completed in Anglia and Yorkshire, with London expected to complete the transition to digital by April 2012. The areas of Meridian, Ulster and Tyne Tees would follow later in 2012.[149]

Mobile phones and internet

As far as other significant changes in the communications landscape are concerned the route of mobile phones and internet during this decade is noteworthy. Mobile telephony has been very successful. Overall reach is nearing saturation with 91% of UK adults owning a mobile phone (Ofcom, 2011, p. 15) and 27% of these owning a 'smart-phone' (ibid., p. 4). The popularity of mobile services is combined with the fast developing preference of consumers towards bundling services with double-play or triple-play packages;[150] that is taking up two or three services from the same provider as part of one subscription (ibid., p. 5).

As regards the internet it is worth noting that it is now a mass market medium reaching 78% of all households in 2011, with total broadband take-up reaching 74% (Ofcom, 2011, pp. 1-3). Internet adoption is up from 70% in 2009 (Ofcom, 2009a, p. 247). It is interesting that the take-up of the internet has currently overtaken that of PCs which was 77%, according to Ofcom (2011, p. 1). This means that a small number of households has access to the internet only from their mobile phones (ibid.). Despite not

---

[149] Digital Britain, Final Report, 2009.
[150] Usually either fixed-line and broadband or fixed-line, broadband and DTV.

having yet reached the penetration of DTV, the internet is clearly predominant in the domain of interactivity, as discussed in chapter 7.

The internet seems to be overtaking television in the domain of *convergence* since more and more television content is available online, and more and more users watch programmes online through the internet. The habit of on demand viewing can be practised in several ways since online TV has become a reality and the new term and practice of 'catch-up TV' (viewing) is starting to become mainstream not only via DTV, but also via the internet/PC. The opportunity to watch what you want when you want it is also available on the PC screen, due to new content distribution models,[151] and is becoming popular. All public service and most multichannel distributors provide a significant amount of their channels' scheduling on the internet.

In early 2011, 35% of adults with internet access used it to watch catch-up TV services (Ofcom, 2011, p. 6). The research shows that young age groups and men are more likely to use catch-up TV, making this early adopter group's characteristics similar to Rogers's early adopters (2003). Internet based television adoption even though still low, is catching up as broadband penetration rises. Note however that online catch-up TV is still a minority habit given the near universal reach and use of broadcast television. However given these figures, trends and developments, and given the early failure of 'Open....' and online interactivity on television discussed earlier, as regards the '*convergence battles'* debate (chapter 7) it now seems that the internet/PC is the medium more likely to acquire the features of television than vice versa.

One might agree with this conclusion and with the fact that we can now more safely and confidently infer that after all television was not a medium made to take up the functions of the internet and the computer, as the FGDTV audience use and consumption showed. However, we cannot define early DTV as a *missed opportunity* of interactivity. Of course there were objective factors hindering convergence success on television. First the technology was premature and unsophisticated, Sky services were slow and thus not inviting and audiences stuck to what they were used to: watching television content. Second, Sky prioritized multichannel rather than interactive television in its marketing communication. Sky was caught up in the government's digital *switchover* plans and focused on switching its analogue multichannel service and subscribers and promoting mainly television content. Third, and very crucially, there is

---

[151] All major broadcasters now offer online video streams via interactive broadband mechanisms. Amongst these, BBC's iPlayer and Sky's Sky Player TV are the most popular.

the power of television and habit and the persistence of viewers to regard DTV as a screen, entertainment, and 'laid-back' medium. Fourth, the rich and complex new media technology environment that was developing and the impact of one medium on another meant that back then at the turn of the 21st century it was not possible to foresee what the internet would become.

Technology use and domestication

Concerning use and domestication and people's lives and homes since 2000 and since the launch of DTV, following the expansion of media forms and technologies outlined above, we see that some of our habits, consumption patterns and the way we incorporate technology in our lives have changed (Silverstone, 2005, 2006; Haddon, 2006; Goggin, 2006; Green and Haddon, 2009). The increasing mobility of our lives has shifted the context and place of media consumption to outside the home, making the work place (Pierson, 2006), the school, the internet café, the neighbourhood square and other places, a context were interaction with media takes place. At the same time the growth in portable media technologies, such as mobile phones (Haddon, 2003, 2004; Green and Haddon, 2009), wireless internet, i-phones etc. allows any 'outside the home' place to become a site of media consumption that may have a bearing on media or ICT use.[152]

Television and its technological advancement through the years have changed household patterns and routines. Once families sat together to watch television. At the time of my research it was not uncommon for viewers to watch alone their favourite niche programmes. In our days in 2011, people are calling their favourite programme on demand to watch on their DVR whenever they find the time. Additionally people now watch television on their laptop, or on the go through the i-phone, alone on a flat screen, or in a pub with a group of fans in 3D mode. The spatial context is shifting, the time-schedule becomes flexible, and the box is changing shape, size and form. Yet, people still refer to it as *TV viewing*. Television has changed yet programming and content is still what matters most to most viewers.

Twelve years after the launch of DTV television is still a significant part of the digital living room. In the past years, people have equipped their multimedia houses and living rooms, built these around DTV which is connected to the DVD, the DVR, the

---

[152] Also making researchers think more of how the domestication concept could be enriched and revised in this changing media environment.

digibox, the laptop etc., and keep in their pockets or bags portable converged media such as i-phones, Blackberries, i-pads, e-book readers. Digital technology has become embedded in our lives and perhaps soon it will not make sense to talk about such distinct media without taking into consideration the converged digital environment they are all part of. What in the late 1990s was a television innovation has become part of the bigger story of the development of this digital media ecosystem. However, it is intriguing, as recent research shows that 'the resilience and evolution of television over the decade has ensured that broadcast TV remains central to our consumption of audiovisual content' (Ofcom, 2011, p. 3).

Reflection on Limitations and Future Studies

Despite the extent of empirical data brought to surface, the limitations of this study are not underestimated and critical reflections but also suggestions for further research are discussed in this section. Following the earlier section on the value of the approach the contribution of the research is also further discussed.

Some methodological limitations to do with the particularity of the specific case were discussed in the methodology chapter. In my research, I made a necessary choice to focus on DTV and Sky digital in particular that relates to the specific focus of study and the coinciding of Sky digital launch with the timing of the research. Although the empirical study was limited by the particularities[153] of the case study, it also addresses these very particularities and specificities in the discussion of DTV cultural circuit.

Concerning the issue of generalization it is worth noting that safer generalizations would require a larger sample size and response and the inclusion of other DTV providers. The focus on the UK is because at the time the UK was the most advanced in terms of both services and adoption rates and was setting the way towards European analogue switch-off. Yet, although focused on the UK, the thesis has implications for Europe's transition to digital broadcasting and the analogue television switch-off project at large. It would be interesting and a timely research to study other

---

[153] E.g. the particular medium and provider and the specific characteristics of the latter, such as the fact that Sky was the first to offer DTV services; that it had a pre-existing base of analogue multichannel subscribers already available to draw from; that it offered the widest array of channel and interactive services compared to competition etc.

countries now that Europe is approaching analogue switch-off (Van den Broeck and Pierson, 2008).

The multiple method design of this research allowed investigation of administrative and critical issues and is compliant with the theoretical framework of the thesis and the attempt to expand and enhance diffusion of innovations drawing on the domestication approach. Priority was given to the quantitative perspective although qualitative interviews informed the project and enabled interpretation of the findings deriving from the household. A point of reflection however concerns the extent of data analysis and depth of interpretation of the findings. Perhaps focusing solely on domestication theory/research and on just one of the methods used here, the in-depth interviews, would have allowed deeper investigation of the issues of appropriation and incorporation of the technology in family structures. However my study is about 'synthesizing approaches' (Green and Haddon, 2009, p. 2) to the study of DTV; it is a study about diffusion and use and allows an array of factors and actors (Pierson, 2006) contributing to the shaping and meaning construction of DTV in the market and household to come to the fore.

Concerning DTV in particular, I would argue that now, with knowledge of what went on in its early years, DTV is an especially interesting object of study. Specifically, now we know that DTV promises turned out to be falsehoods and high expectations did not live up to reality. But a technology and its effects are more important when a new medium turns from 'cool' and 'hip' to mainstream, 'banal' and taken for granted. As Mosco (2005, p. 6) argues:

> it is when technologies…cease to be sublime icons of mythology and enter the prosaic world of banality - when they lose their role as sources of utopian visions - that they become important force for social and economic change.

Now that early enthusiasm and excessive publicity have subsided and the myth has lost its gloss and novelty, and DTV is in almost every UK household it would be useful do conduct domestication research in its consumption and uses, and detect long-term changes in household habits, practices and structures.

In relation to the digital switchover and the conversion of Britain to a fully digital country, as discussed earlier, this is going according to plan. Results from early research reported in Digital Britain report (2009, pp. 85-86) suggests that the programme is running fine and people have responded well to the switchover, even

converting all their television sets digital soon after the initial conversion of their main set. However, as this switchover programme is near completion we should remind ourselves of the lessons discussed earlier in this chapter. The fact that access does not mean use will remain important even after digital conversion. Even when the switchover is complete, even when the country has ceased its analogue broadcasting system, even when everyone in the UK has access to DTV, this does not tell us a lot unless we also know what they do with it and what it means to them.

This thesis portrays the introduction, diffusion and adoption of a new medium in its early days and its uses by its early audience. In examining DTV adoption by the FGDTV audience, and in complementing quantitative and qualitative approaches, this thesis contributes to diffusion studies of new media circulation and use, beyond the specific medium under study and the particular case of adoption examined.

The study of the particular medium of DTV and its specific audience group, despite the unambiguous special characteristics and features discussed, leads to the theorization of arguments about new media diffusion, use and overall shaping that surpass its specificity. This thesis regards diffusion and adoption as a social and historical process, linked to all the moments in the circuit of culture and to the past. It suggests that the diffusion and adoption/use of any new medium can be studied as such. I would suggest this provides a constructive and ambitious framework to study new media technologies and the shaping of their biography. Further research within this framework would broaden our understanding of the role of forces, moments, factors and actors in the meaning creation and definition of a new medium.

The study of this new medium and early audience also led to more general points and arguments that may apply to any innovation diffusion. The three lessons of early promotional discourse, continuity and access' relationship to use discussed, contribute to an understanding of new media adoption and use in general. At the same time, a careful look at these three lessons or phenomena across different media can help us understand what is similar and unique to each case.

The thesis also calls for studies following the life trajectory of new media, from launch to mass market adoption, to late adopters; addressing its production, consumption, identity, representation and regulation moments and revealing the crucial factors and pressures (political, economic, historical, legal, technological) that each time push the meaning of a technology in particular directions. This would provide points of

reference for comparison across audience generations and a basis for discussion of social change brought by new media through the years.

The many faces of a new medium – A framework of study

As already noted, at the time of empirical investigation DTV was *new* both *in the household* and *the market*. I thus sought to understand how the culture of DTV was beginning to take shape both in the market and in consumers' houses, from a macro but also a micro perspective. It was evident from the beginning that the object of study was multifarious and was thus conceived as taking up different identities in different contexts. DTV can be seen as an innovation, as a technology, a product, a medium; and is frankly all these at the same time, either in the market or at home, or even in the rhetoric used by Sky, by the government or by policy strategies. The theoretical grounding of the thesis and the literature to which I make an intervention is thus equally diverse; yet brought together so as to study the entry of a new technology in our lives, outside and inside the home, as discussed in detail in the theoretical chapter. DTV in this thesis is discussed as all of the above yet is mostly treated as a new medium, with an emphasis on the *'new' as innovation* and on the *'technology' aspect of DTV as a medium* and as regards its double articulation; that is more as a medium/technology and less as a message/content. Yet, for example, for its users the analysis concluded that emphasis was given less to the 'new' as innovation and more to DTV as both a familiar television *medium* (technology) *and* as a *message* (content); and more specifically as a screen or visual or entertainment or spectator medium.

Given the complexity of the object of study and the different theories brought together to examine it, this thesis would like to stress that there is nothing wrong in studying a new medium from different angles and scopes, instead of limiting the enquiry to just one of these, as is often the case in new media studies/literature. A new medium has indeed many faces; it is a market object, a product to be sold, a policy object, a means to achieve certain aims, an innovation, a technology, a domestic good, a medium, a carrier of content meanings in its double articulation *simultaneously*. It follows different routes as well, from the market to the household or from the living room to the bedroom for example, and can be viewed as either in the public space/market (diffusion) or in private (domestication). What I propose and attempt here

is a complex analysis of the factors and features that influence the character of, that create meaning around and ultimately define a new technology.

Green and Haddon (2009, p. 2) in their account of the mobile phone development also stress that new technologies

> in many ways…are simultaneously material objects, they are symbolic of social identities and relationships, they structure daily life, they reflect and produce social norms and...[i]f we are to understand how…technologies achieve all these different roles we need to understand the role of technologies in social life more generally.

This can be achieved through the framework proposed in this thesis; through the conjoining of diffusion approach with domestication under the circuit of culture, I would propose. Such framework provides us with the tools to think and answer questions about the implications of new media technologies in an increasingly converging world; and think about their role from within a number of moments of social and technological shaping (consumption, production, regulation, representation etc). In a fast changing world, and field, of convergence, of changing mobilities, multiple interactions and constant development of new technologies maybe it makes no longer sense to only look in the household at what technologies mean to people. We need to also address the wider societal spread and assess societal acceptance of such technologies. Talking about patterns of ownership and use through quantitative research of a large scale is useful for providing an 'evidential base for the range of claims… made in relation both to specific devices and to the broader phenomenon of the growth of technology… and to show something of the diversity, or patterning, which lies behind such trends' (Mackay, 1995, p. 311). Still, it is equally limiting to only look at the market and at how technologies appear there and spread.[154] As Pierson (2006, p. 208) argues 'statistically significant correlations are insufficient for understanding the motives and meaning of… [users] concerning their use of ICT'. It is time to study new media with a joint focus on diffusion and domestication approaches. This way we can create *histories of development* of new media and chart the crucial moments, factors and actors that played a role in and shaped their development; we can have comparison points to contrast between different media but also to compare the course of different media across history and cultures.

---

[154] Something that Mackay (1995) notes too emphasizing his intention to offer quantitative insight so as to *complement* qualitative studies.

I end with a call for disciplinary, theoretical and methodological cooperation. This thesis has argued that the biography of a new medium, its meaning and identity is shaped by all its stops in the various cultural circuit moments and that all matter, even if one might prevail each time depending on the scope the researcher takes. Sky digital television for example when bought and brought in the household gets incorporated in the household structure and routines and becomes meaningful because of and through these. However, it is always Sky digital, and not Freeview or another DTV brand, and always, even if silently, carries the values of BSkyB as a major corporation, its achievements as the first to launch and as the most technologically advanced service but also its downsides and its ethos with an emphasis on commercialization, competition etc. All these, unavoidably, are subtly part of the character of Sky DTV as a new medium when it enters the household and as it gets domesticated. In other words all moments on the cultural circuit shape and reshape, mediate and remediate a new medium. Crucially, this does not mean that one needs to study the whole circuit at once; on the contrary. Given the plasticity and malleability of the circuit of culture model discussed in the theoretical chapter, it is interesting that at the same time as focusing to perhaps carefully note down a significant moment (of change), it is equally revealing for one to attend to the whole process of meaning construction and incorporate different moments that may also play an important role.

Seen this way, whether one zooms in or out, the conceptual framework of this thesis and the conjoining it proposes of administrative and critical, quantitative and qualitative approaches, macro and micro processes, general/wide and specific/narrow phenomena and locations, breadth and depth, or innovations diffusion with design and domestication under the circuit of culture 'permit crucial indeterminacies, interdependencies and contingencies; but they neither reduce to technological or social determinism nor celebrate unlimited polysemy' (Livingstone and Das, 2009, p. 6 – discussing the concepts of interpretation/genre/literacy). All factors play a role in shaping and creating meaning around a new medium, as said in the theories chapter. No single one is more important. Equally, there is neither social nor technological determinism taking place in the meaning creation and definition of a new medium alone, but mutual shaping.

As more technologies, new media and audience generations or users develop in an increasingly complex world of new media convergence, we need perhaps to pursue

disciplinary, theoretical and methodological convergence or collaboration in our enquires to understand this new world better, rather than working against multidisciplinarity or multiple methodologies. Media, technologies, machines or texts, the acts of their use and interpretation by users, the social contexts of this use and the production contexts of those media alike, all comprise a dynamic circuit that we can efficiently study by turning away from counter-productive dichotomies and bipolars such as production/consumption, positivist/critical, market/household, linear/cyclic, to incorporating such concepts and areas of study to a common framework, with internal debate and deliberation taking place.

Bibliography

Abercrombie, N. (1996). *Television and Society.* Cambridge: Polity Press.

Acosta-Alzuru, C., and Kreshel, P. (2002). I'm an American girl…whatever that means. Girls consuming pleasant company's American identity. *Journal of Communication*, 52(1), 139-161.

Akrich, M. (1992). The de-scription of technical objects. In W. Bijker and J. Law (Eds.), *Shaping Technology, Building Society: Studies in Sociotechnical Change* (pp. 205-224). Cambridge, MA: MIT Press.

Akrich, M. and Latour, B (1992). A summary of a convenient vocabulary for the semiotics of human and non-human assemblies. In W. Bijker and J. Law (Eds.), *Shaping Technology, Building Society: Studies in Sociotechnical Change* (pp. 259-264). Cambridge, MA: MIT Press.

Alasuutari, P. (1995). *Researching Culture: Qualitative Method and Cultural Studies.* London: Sage.

Ancarrow, J. (1985). *Use of Computers in Home Study.* Washington, DC: US Department of Education, Center for Education Statistics, Government Printing Office.

Anderson, B., and Tracey, K. (2001). Digital living: the impact (or otherwise) of the internet on everyday life. *American Behavioral Scientist*, 45(3), 456-475.

Appadurai, A. (Ed.) (1986). *The Social Live of Things: Commodities in Cultural Perspective.* Cambridge: Cambridge University Press.

Atkin, D. (1995). Audio information Services and the electronic media environment. *Journal of Broadcasting and Electronic Media*, 11(1), 75-83.

Atkin, D.J., Jeffres, L.W., and Neuendorf, K.A. (1998). Understanding internet adoption as telecommunications behavior. *Journal of Broadcasting and Electronic Media*, 42(4), 475-490.

Aune, M. (1996). The computer in everyday life. Patterns of domestication of a new technology. In M. Lie and K.H. Sorensen (Eds.), *Making Technology our Own?* (pp. 91-120). Stockholm: Scandinavian University Press.

Bakardjieva, M. (2001). Becoming a domestic internet user. Unpublished paper presented at the *E-Usages Conference*. Paris, pp. 28-38.

Bakardjieva, M. (2005). *Internet Society. The Internet in Everyday Life.* London: Routledge.

Bakardjieva, M. (2006). Domestication running wild. From the moral economy of the household to the mores of culture. In T. Berker, M. Hartmann, Y. Punie, and K. Ward (Eds.), *Domestication of Media and Technology* (pp. 62-79). Maidenhead: Open University Press.

Bakardjieva, M., and Smith, R. (2001). The Internet in everyday life: Computer networking from the standpoint of the domestic user. *New Media and Society,* 3(1), 67-83.

Barker, C. (2004). *The Sage Dictionary of Cultural Studies.* London: Sage.

Barnes, S. B. (2000). Bridging the differences between social theory and technological invention in human-computer interface design. *New Media and Society*, 2 (3), 353-372.

Barwise, P. (2004). An academic perspective: Long-term issues for TV advertising. In B. Clarke (Ed.), *The NewMedium of Television*. *Re-interpreting TV for the 21st Century* (pp. 24-32). London: Flextech television, Interactive digital sales (Ids). (Also available on www.idigitalsales.co.uk and www.re-thinkingtv.com).

Barwise, P., and Ehrenberg, A. (1988). *Television and its Audience.* London: Sage.

Baudrillard, J. (1988). *Selected Writings*, (Ed. Poster, M). Cambridge: Polity Press.

Bauer, M. (1995). Technophobia: a misleading conception of resistance to new technology. In:M. Bauer (Ed.), *Resistance to New Technology - Nuclear Power, Information Technology, Biotechnology* (pp. 97-124). Cambridge: Cambridge University Press.

Beal, V., Barwise, P., and Collins, M. (2004). *TV Viewing Patterns*. *Loyalty to Programme Genres*. R&D Initiative Research Report No.18, December 2004.

Becker, L.B., and Schoenbach, K. (Eds.) (1989). *Audience Responses to Media Diversification: Coping with Plenty*. Hillsdale, N.J.: Lawrence Erlbaum.

Berger, A.A. (1982). *Media Analysis Techniques.* London: Sage.

Berker, T., Hartmann, M., Punie, Y., and Ward, K. (Eds.) (2006). *Domestication of Media and Technolgy.* Meidenhead: Open University Press.

Bianchi, M. (Ed.) (1998). *The Active Consumer: Novelty and Surprise in Consumer Choice*. London: Routledge.

Bijker, W.E. (1995). *Of Bicycles, Bakelites and Bulbs: Toward a Theory of Sociotechnical Change*. Cambridge, Mass.: MIT Press.

Bijker, W.E., and Law, J. (1992). *Shaping Technology/ Building Society: Studies in Sociotechnical Change*. Cambridge, Mass.: MIT Press.

Blumberg, P. (1974). The decline and fall of the status symbol: some thoughts on status in a post-industrial society. *Social Problems*, 21, 480-498.

Blyth, M. (2001). *The Social Construction of Consumer Need for New Information and Communication Technologies (ICTs).* PhD Thesis. Brunel University, Brunel.

Boczkowski, P. (2004). Mutual shaping of technology and society. *The Information Society,* 20(4), 255-267.

Bodin, C., Brawise, P., and Canhoto, A.I. (2002). *UK Consumer Responses to iDTV Report*. London: London Business School.

Botler, D., and Grusin, R. (1999). *Remediation: Understanding New Media*. Cambridge, Mass.: MIT Press.

Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste.* Translated by Nice, R. London: Routledge.

Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258). New York: Greenwood.

Bowman, S., and Willis, C. (2003). *We Media: How audiences are shaping the future of news and information*. Thinking paper. The Media Center, at the American Press Institute.

Boyatzis, R. E. (1998). *Transforming Qualitative Data: Thematic Analysis and Code Development*. London: Sage.

Brannen, J. (Ed.) (1992). *Mixing Methods: Qualitative and Quantitative Research*. Aldershot: Avebury.

Brannen, J. (1992). Combining qualitative and quantitative approaches: an overview. In J. Brannen (Ed.), *Mixing Methods: Qualitative and Quantitative Research* (pp. 3-37). Aldershot: Avebury.

Bretas, E. M. (2002). *Digital Terrestrial Television in the United Kingdom (1995-2002): The failure of a Business Proposition*. MSc Dissertation, London: The London School of Economics and Political Science.

Briggs, A. (1965). *The History of Broadcasting in the United Kingdom Vol. II: The Golden Age of Wireless*. London: Oxford University Press.

Briggs, A. (1979). *The History of Broadcasting in the United Kingdom Vol. IV: Sound and Vision*. Oxford: Oxford University Press.

Briggs, A. (1985). *The BBC: the First Fifty Years.* Oxford: Oxford University Press.

Brimm, D., and Watkins, B. (1985). The adoption and use of microcomputers in homes and elementary schools. In M. Chen, and W. Paisley (Eds.), *Children and Microcomputers. Research on the Newest Medium* (pp. 129-150). Beverly Hills, CA: Sage.

Brown, A., and Picard, R. (Eds.) (2005). *Digital Terrestrial Television in Europe.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Brown, L. A. (1981). *Innovation Diffusion: A New Perspective*. New York: Methuen.

Brunsdon, C. (1997). *Screen Tasters: Soap Opera to Satellite Dishes*. London: Routledge.

Bryman, A. (1988). *Quantity and Quality in Social Research*. London: Unwin Hyman.

Buckingham, A. and Saunders, P. (2004). *The Survey Methods Workbook: From Design to Analysis*. Oxford: Polity.

Buckingham, D. (2008). Children and media: a cultural studies approach. In C. Drotner and S. Livingstone (Eds.), *The International Handbook of Children, Media and Culture* (pp. 219-236). London: Sage.

Butler, D., and Kavanagh, D. (1997). *The British General Election of 1997*. Houndmills, Basinstoke: Macmillan.

Callon, M. (1986). The Sociology of an actor-network: the case of the electric vehicle. In M. Callon, J. Law and A. Rip (Eds.), *Mapping the Dynamics of Science and Technology: Sociology of Science in the Real World* (pp. 19-34). London: Macmillan.

Callon, M. (1987). Society in the making: the study of a technology as a tool for sociological analysis. In W.E. Bijker, T.P. Hughes and T.J. Pinch (Eds.), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (pp. 83-104). Cambridge, MA: MIT press.

Campbell, C. (1987). *The Romantic Ethic and the Spirit of Modern Consumerism*. Oxford: Blackwell.

Campbell, C. (1992). The desire for the new: its nature and social location as presented in theories of fashion and modern consumerism. In R. Silverstone and E. Hirsch (Eds.), *ConsumingTechnologies: Media and Information in Domestic Spaces* (pp. 48-64). London: Routledge.

Campbell, C. (1995). *The Romantic Ethic and the Spirit of Modern Consumerism* (2nd edn). Oxford: Blackwell.

Campbell, C. (2005). *The Romantic Ethic and the Spirit of Modern Consumerism* (3rd edn). Oxford: Blackwell.

Campbell, J., and Holland, J. (2005). *Methods in Development Research: Combining Qualitative and Quantitative Approaches*. Rugby: ITDG Publishing.

Cave, M., and Nakamura, K. (Eds.) (2006). *Digital Broadcasting: Policy and Practice in the Americas, Europe and Japan.* Cheltenham: Edward Elgar.

Cawson, A., Haddon, L., and Miles, I. (1995). *The Shape of Things to Consume: Delivering Information Technology into the Home*. Brookfield: Avebury.

Ceruzzi, P. E. (1998). *A History of Modern Computing*. Cambridge, MA: MIT Press.

Chambers, I. (1990). A miniature history of the walkman. *New Formations: A Journal of Culture/Theory/Politics,* 11, 1-4.

Chippendale, P., and Franks, S. (1991). *Dished! The Rise and Fall of British Satellite Broadcasting.* London: Simon & Schuster.

Cockburn, C. (1983). *Brothers: Male Dominance and Technological Change*. London: Pluto Press.

Cockburn, C. (1992). The circuit of technology: gender, identity and power. In R. Silverstone and E. Hirsch (Eds.), *Consuming Technologies: Media and Information in Domestic Spaces* (pp. 32-47). London: Routledge.

Cole, J. (2000). *The UCLA Internet Report: Surveying the Digital Future.* Los Angeles: UCLA Center for Communication Policy. Retrieved from: www.ccp.ucla.edu.

Collins, R. (1990b). *Satellite Television in Western Europe.* Acamedia Research Monograph. London: John Libbey.

Collins, R. (1992). *Satellite Television in Western Europe* (Revised edition). Acamedia Research Monograph. London: John Libbey.

Collins, R. (1998). *From Satellite to Single Market: New Communication Technology and European Public Service Television*. London: Routledge.

Collins, M., Beal, V., and Barwise, P. (2003). Channel use among multi-channel viewers: 'Patterns in TV viewing behavior'. *The R&D Initiative*, Research report 15

Cooper, J. and Woolgar, S. (1993). *Software is Society Made Malleable: the Importance of Conceptions of Audience in Software and Research Practice.* Swindon: Economic and Social Research Council.

Cooper, W., and Springett, M. (2008). DTV in the United Kingdom. In W. Van den Broeck and J. Pierson (Eds.), *Digital Television in Europe*, (pp. 221-231). Cost Action 298. Brussels: Vubpress

Crisell, A (1997). *An Introductory History of British Broadcasting* (1st edn). London: Routledge.

Crisell, A. (2002). *An Introductory History of British Broadcasting.* (2nd edn). London: Routledge.

Crisell, A. (2006). *A Study of Modern Television: Thinking Inside the Box.* New York: Pelgrave Macmillan.

Cumberbatch, G. (1999). *Television: The Public's View 1999*. An ITC Research Publication.

Cumberbatch, G., Wood, G., and Littlejohns,V. (2000). *Television: The Public's View 2000*. An ITC Research Publication. The Communications Research Group, ITC 2000.

Curran, J. (2008) Technology foretold paper. *Media@LSE Fifth Anniversary Conference*: Media Communication and Humanity 2008, 21 - 23 September 2008. London: London School of Economics

Curran, J. (2009). Technology foretold. In N. Fenton (Ed.), *New Media, Old News: Journalism and Democracy in the Digital Age*. (pp. 19-34). London: Sage.

Curran, J., and Seaton, J. (1997). *Power Without Responsibility: The Press and Broadcasting in Britain*. London: Routlege.

Dawson, M. (2010). Television between analogue and digital. *Journal of Popular Film and Television*, 38(2), 95-100.

De Certeau, M. (1984). *The Practice of Everyday Life* (Translated by Rendall, S.). Berkeley: University of California Press.

De Marez, L. (2006). *Diffusie van ICT-innovaties: accurater gebruikersinzicht voor betere introductiestrategie.* Ph.D. thesis (Gent: Universiteit Gent).

Denzin, N. K. (1989). *The Research Act* (3rd edn). Englewood Cliffs, NJ: Prentice Hall.

Dickerson, M.D., and Gentry, J.W. (1983). Characteristics of adopters and non-adopters of home computers. *The Journal of Consumer Research*, 10(2), 225-235.

Dillman, D. A. (1991). The design and administration of mail surveys. *Annual Review of Sociology*, 17, 225-249.

Dosi, G., Freeman, C., Nelson, R.R., Sliverberg, G. and Soete L.L.G (Eds.) (1988). *Technical Change and Economic Theory*. London: Frances Pinter

Douglas, M., and Isherwood, B. (1979). *The World of Goods: Towards an Anthropology of Consumption*. London: Allen Lane.

Downes, E.J., and McMillan, S.J. (2000). Defining interactivity: a qualitative identification of key dimensions. *New Media and Society*, 2(2), 157-179.

Du Gay, P., Hall, S., Janes, L., Mackay, H., and Negus, K. (1997). *Doing Cultural Studies: The Story of the Sony Walkman*. London: Sage.

Dupagne, M. (1999). Exploring the characteristics of potential high-definition adopters. *The Journal of Media Economics*, 12(1), 35-50.

Dutton, W., and Helsper, H. (2007). *The Internet in Britain, 2007.* Oxford:Oxis

Dutton, W., Helsper, H., and Gerber, M.M. (2009). *The Internet in Britain.* Oxford: Oxis

Dutton, W. H., Rogers, E. M., and Jun, S. H. (1987). Diffusion and social impacts of personal computers. *Communication Research*, 14(2), 219-50.

Dutton, W. H., Rogers, E. M., and Jun, S. H. (1987b). The Diffusion and social impacts of information technology in households. *Oxford Surveys in Information Technology,* 4, 133-93.

Dutton, W.H., and Shepherd, A. (2006). Trust in the internet as an experience technology. *Information, Communication and Society,* 9(4)*,* 433-451.

Dutton, W. H., Sweet, P. L. and Rogers, E. M. (1988). Socioeconomic status and the diffusion of personal computing in the United States. Paper presented to the *International Association for Mass Communication Research Conference*, 24-28 July, Barcelona.

Dyer-Witheford, N. (1999). *Cyber-Marx. Cycle and Circuits of Struggle in High-Technology Capitalism*. Urbana & Chicago: University of Illinois Press.

Dyson, K. (1988). The debate about the future of broadcasting: an analysis. In K. Dyson, P. Humphreys, R. Negrine and J.P. Simon (Eds.), *Broadcasting and New Media Policies in Western Europe* (pp. 62-91). London: Routledge.

Dyson, K., and Humphreys, P. (1988). The context of new media politics in Western Europe. In K. Dyson, P. Humphreys, R. Negrine and J.P. Simon (Eds.), *Broadcasting and New Media Policies in Western Europe* (pp. 1-61). London: Routledge.

Ellis, J. (2000). *Seeing Things*. London: I.B. Tauris Publishers.

Emmett, B.P. (1956). The television audience in the United Kingdom. *Journal of the Royal Statistical Society*, *Series A*, 119(3), 284- 306.

Ettema, J.S. (1989). Interactive electronic text in the United States: can videotext ever go home again?. In J. Salvaggio and J. Bryant (Eds.), *Media Use in the Information Age* (pp. 105-124). Hillsdale, NJ: L.E.A.

Ewen, S., and Ewen, E. (1982). *Channels of Desire: Mass Images and the Shaping of American Consciousness.* N.Y: McGraw-Hill.

Facer, K., Furlong, R., and Sutherland, R. (2003). *Screenplay: Children and Computing in the Home*. London: Routledge.

Fairclough, N. (2001). *Language and Power* (2nd edn). Essex: Longman.

Feenberg, A. (1999). *Questioning Technology*. London: Routledge.

Fischer, C.S (1992). *America Calling: a Social History of the Telephone to 1940*. Berkeley: University of California Press.

Flichy, P. (1995). *Dynamics of Modern Communication: the Shaping and Impact of New Communication Technologies*. London: Sage.

Flick, U. (1998). *An Introduction to Qualitative Research*. London: Sage.

Forty, A. (1986). *Objects of Desire: Design and Society 1750-1980*. London: Thames and Hudson.

Fraley, T. (2003). Satisfied: consumption, identity and widespread panic. A paper submitted to the *International Communication Association's 2003 Annual Conference*, San Diego, CA.

Freeman, C. (1994). The diffusion of information and communication technology in the world economy in the 1990s. In R. Mansell (Ed.), *Management of Information and Communication Technologies* (pp.8-41). London: Aslib.

Freeman, J., and Lessiter, J. (2007). *Easy to Use Digital Television Receivers: Remote Control Buttons and Functions Used by Different Types of Consumer*. Research report prepared for Ofcom. I2 media research ltd, Department of Psychology, Goldsmiths, University of London.

Frey, L.R., Botan, C.H., Friedman, O.G., and Kreps, G.L. (1991). *Investigating Communications. An Introduction to Research Methods*. Englewood Cliffs, NJ: Prentice Hall.

Friessen, V., and Punie, Y. (1998). Never mind the gap: integrating qualitative and quantitative methods in ICT user research: the case of busy households. In R. Silverstone and M. Hartmann (Eds.), *Methodologies for Media and Information Technology Research in Everyday Life* (pp. 73-94). Research Report, The Graduate Research Ventre in Culture and Communication, University of Sussex.

Galik, M. (2002). Value added services on digital television platforms. *Javnost-the Public*, 9(4), 67-74.

Galperin, H. (2004). *New Television, Old Politics: The Transition to Digital TV in the United States and Britain*. Cambridge: Cambridge University Press.

Galperin, H. (2007). Digital broadcasting in the developing world: a Latin American Perspective. In M.Cave and K. Nakamura (Eds.), *Digital Broadcasting. Policy and Practice in the Americas, Europe and Japan* (pp. 39-53). Cheltenham: Edward Elgar.

Garcia Leiva, M.T., Starks, M., and Tambini, D. (2006). Overview of digital television switchover policy in Europe, the United States and Japan', *Info,* 8(3): 32-46.

Garitaonandia, C., and Garmedia, M. (2009). E-commerce use among digital TV subscribers: audiovisual abundance and virtual purchase – predictors of e-commerce use among digital television subscribers in Spain. *New Media and Society*, 11(3), 417-432.

Garrison, B. (2001) Diffusion of online information technologies in the newspaper newsrooms. *Journalism*, 2 (2)*,* 221-239.

Gauntlett, D., and Hill, A. (1999). *TV living: Television, Culture and Everyday Life.* London: Routledge.

Gentikow, B. (2004). *Notions of and Experiences With Digital Television*. Preliminary findings. Retrieved from: http://kulturteknikker.kyber.no/default.asp?kat=655&id=2325&sp=1.

Geraghty, C., and Lusted, D. (Eds.) (2002). *The Television Studies Book*. (2nd edn). London: Arnold.

Gerson, K., and Horowitz, R. (2002). Observation and interviewing: options and choices in qualitative research. In T. May (Ed.), *Qualitative Research in Action* (pp. 199-224). London: Sage Publications.

Gibbons, T. (1998). *Regulating the Media*. London: Sweet & Maxwell.

Goggin, G. (2006). *Cellphone Culture: Mobile Technology in Everyday Life.* New York: Routledge.

Goldthorpe, J.H. (1987). *Social Mobility and Class Structure in Modern Britain* (2nd edn). Clarendon: Oxford.

Goodfriend, A. (1988). Satellite Broadcasting in the UK. In R. Negrine (Ed.), *Satellite broadcasting: The Politics and Implications of the New Media* (pp. 144-175). London: Routledge.

Goodwin, P. (1998). *Television Under the Tories: Broadcasting Policy 1979-1997.* London: BFI.

Graber, D. (1988). *Processing the News*. New York: Longman.

Gray, A. (1987). Behind closed doors: video recorders in the house. In H. Baehr and G. Dyer (Eds.), *Boxed In: Women and TV* (pp. 38-54). London: Routledge.

Gray, A. (1992). *Video Playtime: The Gendering of a Leisure Technology*. New York: Routledge.

Green, L. (2002). *Communication, Technology and Society*. London: Sage.

Green, N. and Haddon, L. (2009). *Mobile Telecommunications: An Introduction to New Media.* Oxford; New York: Berg.

Greenberg, B.S. (1989). Teletext in the United Kingdom: patterns, attitudes, and behaviours of users. In J.L. Salvaggio and J. Bryant (Eds.), *Media Use in the Information Age: Emerging Patterns of Adoption and Computer Use* (pp. 87-103). New Jersey: Lawrence Erlbaum Associates.

Grint, K. and Woolgar, S. (1997). *The Machine at Work: Technology, Work and Organisation.* Cambridge, Mass: Polity Press.

Gripsrud, J. (2004). Broadcast television: the chances of its survival in the digital age. In L. Spigel and J. Olsson (Eds.), *Television After TV. Essays on a Medium in Transition.* (pp. 210-223). London: Duke University Press.

Guba, E.G. (Ed.) (1990). *The Paradigm Dialogue.* Newbury Park, CA: Sage

Guba, E.G., and Linkoln, Y.S. (1989). *Fourth Generation Evaluation*. Newbury Park, CA; London: Sage.

Gunter, B. (2000). *Media Research Methods*. London: Sage

Gunter, B., and Svennevig, M. (1987). *Behind and in Front of the Screen: Television's Involvement With Family Life*. London: J. Libbey & Co.

Gunter, B., and Wober, M. (1989). The uses and impact of home video in Great Britain. In M. Levy (Ed.) *The VCR Age. Home Video and Mass Communication* (pp. 50-69). Newbury Park, CA: Sage.

Ha, L., and Chan-Olmsted, S. (2002). Consumers' use of enhanced TV features and interest in e-commerce on cable network websites. *Electronic Markets*, 12(4), 237-247.

Haddon, L. (1988). The home computer: the making of a consumer electronic. *Science As Culture*, 2, 7-51.

Haddon, L. (1998). The control of communications. Imposing limits on telephony. English version of: Il controllo della comunicazione. Imposizione di limiti all'uso del telefono. In L. Fortunati (Ed.), *Telecomunicando in Europa* (pp. 195-247). Milano: Franco Angeli.

Haddon, L. (1998b). Methodologies of domestication: practice and reflection. In R. Silverstone and M. Hartmann (Eds.), *Methodologies for Media and Information Research in Everyday Life.* EMTEL Working Paper No5. University of Sussex, Falmer.

Haddon, L. (2003). Domestication and mobile telephony. In J. Katz (Ed.), *Machines that Become Us: The Social Context of Personal Communication Technology* (pp. 43-56). New Brunswick, NJ: Transaction Publishers.

Haddon, L. (2004). Cultural differences in communication: Examining patterns of daily life. Paper for the *Mobile Communication and Social Change Conference*, 17-18 October, Seoul.

Haddon, L. (2006). ICTs and social change: three examples for everyday life. Paper for the Panel *Information and Communication Technologies and Social Change, 9th Forum of Social Trends*, 22-24 November, Madrid.

Haddon, L. (2006b). The contribution of domestication research to in-home computing and media consumption. *The Information Society,* 22 (4), 195-203.

Haddon, L. (2007). Roger Silverstone's legacies: domestication. *New Media and Society*, 9 (1), 25-32.

Haddon, L. and Silverstone, R. (1994) Telework and the Changing Relationship of Home and Work. In R. Mansell (Ed.) *Management of Information and Communication Technologies: Emerging Patterns of Control* (pp. 234-47). London: Aslib.

Haddon, L., and Silverstone, R. (1995). *Lone Parents and Their Information and Communication Technologies.* SPRU/CICT Report Series, No.12, University of Sussex, Brighton.

Haddon, L., and Silverstone, R. (1996). *Information and Communication Technologies and the Young Elderly*. SPRU/CICT Report Series, No.13, University of Sussex, Brighton.

Hall, S. (1980). Encoding/decoding. In S. Hall, D. Hobson, A. Lowe, A. and P. Willis, (Eds.), *Culture, Media, Language* (pp. 128-138). London: Routledge.

Hall, S. (1981). Notes on deconstructing "the popular". In R. Samuel (Ed.), *People's History and Socialist Theory* (pp. 227-242). London: Routledge.

Hall, S. (1990). Cultural identity and diaspora. In J. Rutherford (Ed.), *Identity: Community, Culture, Difference* (pp. 222-237). London: Lawrence and Wishart.

Hall, S. (1997). The work of representation. In S. Hall (Ed.), *Representation: Cultural Representations and Signifying Practices* (pp. 13-74). The Open University, London: Sage

Hamill, N. (2000). The Introduction of new technology into the household. *Personal Technologies*, 4, 54-69.

Hammersley, M., and Atkinson, P. (1995). *Ethnography: Principles in Practice* (2nd edn). London: Routledge.

Hammersley, M., and Atkinson, P. (2007). *Ethnography: Principles in Practice* (3rd edn). London: Routledge.

Hansen, A., Cottle, S., Negrine, R., and Newbold, C. (1998). *Mass Communication Research Methods*. London: MacMillan Press

Hartmann, M. (2006). The triple articulation of ICTs: media as technological objects, symbolic environments and individual texts. In T. Berker, M. Hartmann, Y. Punie and K. Ward (Eds.), *Domestication of Media and Technology,* (pp. 80-102). Maidenhead: Open University Press.

Hawkins, D., Neal, C., Quester, P., and Best, R. (1994). *Consumer Behaviour: Implications for Marketing Strategy.* Sydney: Irwin.

Heeter, C., and Greenberg, B.S. (1988). *Cableviewing*. Norwood, N.J.: Ablex Publishing.

Hellman, H. A. (1996). A toy for the boys only? Reconsidering the gender effects of video technology. *European Journal of Communication*, 11(1), 5-32.

Hirsch, E. (1992). The long term and the short term of domestic consumption. An ethnographic case study. In R. Silverstone and E. Hirsch (Eds.), *Consuming Technologies: Media and Information in Domestic Spaces* (pp. 208-226). London: Routledge

Hirschliffer, J. (1998). *Price and Theory Applications*. New Jersey: Englewood Cliffs.

Hobson, D. (1980). Housewives and the mass media. In S. Hall, D. Hobson, A. Lowe and P. Willis (Eds.), *Culture, Media, Language* (pp. 105-114). London: Hutchinson.

Hobson, J. A., and Veblen T. (1994). *Veblen and the Theory of the Leisure Class.* In The Collected Works of Thorstein Veblen, Vol I. London: Routledge/Thoemmes Press.

Hollins, T. (1984). *Beyond Broadcasting: Into the Cable Age*. London: BFI.

Howard, P.N., Rainie, L., and Jones, S. (2001). Days and nights on the internet. The impact of a diffusing technology. *American Behavioral Scientist*, 45(3), 383-404.

Hynes, D., and Rommes, E. (2006). Fitting the internet into our lives: IT courses for disadvantaged users. In T. Berker, M. Hartmann, Y. Punie and K. Ward (Eds.), *Domestication of Media and Technology* (pp. 123-144). Maidenhead: Open University Press.

Jeffres, L.W., and Atkin, D.J. (1996). Predicting use of technologies for communication and consumer needs. *Journal of Broadcasting and Electronic Media*, 40, 318-330.

Jenkins, H. (2001). Convergence? I diverge. *In Technology Review*, June 2001, 93. Retrieved from: http://web.mit.edu/cms/People/henry3/converge.pdf.

Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. NY: New York University Press.

Jensen, J. F., and Toscan, C. (1999). *Interactive Television: TV of the Future or the Future of TV?* Aalborg: Aalborg University Press.

Jensen, K.B. (2002). The complementarity of qualitative and quantitative methodologies in media and communication research. In J.B. Jensen (Ed.), *A Handbook of Media and Communication Research. Qualitative and Quantitative Methodologies* (pp. 254-272). London: Routledge.

Jick, T. (1983). Mixing qualitative and quantitative methods: triangulation in action. In V. Maanen (Ed.), *Qualitative Methodology* (pp. 135-148). London: Sage.

Johnson, R. (1986). The story so far: and for the transformations. In D. Punter (Ed.), *Introduction to Contemporary Cultural Studies* (pp. 277-313). London: Longman.

Johnson, R. (1986/87). What is cultural studies anyway. *Social Text*, 16, 38-80.

Johnson, R., Chambers, D., Raghuram P., and Tincknell, E. (2004). *The Practice of Cultural Studies*. London: Sage.

Katz, E., and Lazarsfeld, P.F. (1955). *Personal Influence: The Part Played by the People in the Flow of Mass Communications.* New York: The Free Press.

Katz, J.E., and Asbden, P. (1997a). Motivations for and barriers to Internet usage: Results of a national public opinion survey. *Internet Research: Electronic Netwroking Application and Policy,* 7(3), 170-188.

Katz, J.E., and Asbden, P. (1997b). Motives, hurdles and dropouts: who is on and off the internet and why. *Communications of the ACM*, 40(4), 97-102.

Katz, J.E., Rice, R.E., and Aspden, P. (2001). The Internet, 1995-2000. Access, Civic Involvements and Social Interaction. *American Behavioral Scientist*, 45(3), 405-419.

Kirsch, G. E. (1999). *Ethical Dilemmas in Feminist Research: The Politics of Location, Interpretation, and Publication*. Albany: State University of New York Press.

Klein, J., Karger, S., and Sinclair, K. (2004). *Attitudes to Digital Television: Preliminary Findings on Consumer Adoption of Digital Television*. Department of Trade and Industry, London, report prepared for the Digital Television Project by the Generics Group in association with Ipsos UK.

Klein, R. (2003). Resisting consumer technology in rural America. The telephone and electrification. In N. Oudshoorn and T. Pinch (Eds.), *How Users Matter: The Co-Construction of Users and Technology* (pp. 51-66). Cambridge, Massachusetts: The MIT press.

Kling, R. (1992). Audiences, Narratives and Human Values in Social Studies of Technology. *Science, Technology and Human Values*, 17 (3): 349-365.

Komarovsky, M. (1967). *Blue Collar Marriage*. New York: Vintage Books.

Kranakis, E. (1996). *Constructing a Bridge: an Exploration of Engineering Culture Design and Research in Nineteenth-Century France and America*. Cambridge, MA: MIT Press.

Kranakis, E. (1999). Constructing a bridge. In D. MacKenzie and J. Wacjman (Eds.), *The Social Shaping of Technology* (2nd edn) (pp. 86-104). UK: Open University Press.

Kuhn, R., and Wheeler, M. (1994). A rejoinder: the Future of the BBC revisited. *Political Quarterly*, 65 (4): 432-440.

Laird, P. W. (1998). *Advertising Progress: American Business and the Rise of the Consumer Marketing*. Maryland: The John Hopkins University Press.

Lally, E. (2002). *At Home with Computers*. Oxford: Berg.

LaRose, R., and Atkin, D.J. (1992). Audiotext and the re-invention of the telephone as a mass medium. *Journalism Quarterly*, 69, 413-421.

Leiss, W. (1986). *Social communication in Advertising: Persons, Products and Images of Well Being*. New York: Methuen Publications.

Leiva, M. T., and Starks, M. (2009). Digital switchover across the globe: the emergence of complex regional patterns. *Media, Culture and Society*, 31(5), 787-806.

Levinson, P. (1999). *Digital McLuhan: A Guide to the Information Millennium*. London: Routledge.

Levy, M. R. (1980a). Home video recorders: a user survey. *Journal of Communication*, 30(4), 23-37.

Levy, M. R. (1980b). Program playback preferences in VCR households. *Journal of Broadcasting*, 24(3), 327-336.

Levy, M., and Gunter, B. (1988). *Home Video and the Changing Nature of the Television Audience*. London: Independent Broadcasting Authority.

Lie, M., and Sorensen, K. H. (Eds.) (1996). *Making Technology our Own?* Stockholm: Scandinavian University Press.

Liebes, T., and Livingstone, S. (1994). The structure of family and the romantic ties in soap opera: an ethnographic approach. *Communication Research*, 21(6), 717-741.

Lievrouw, L., and Livingstone, S. (2006). Introduction to the updated student edition. In L. Lievrouw and S. Livingstone (Eds.), *The Handbook of New Media: Social Shaping and Social Consequences* (Updated student edition) (pp. 1-14). London: Sage.

Lin, C.A. (1998). Exploring personal computer adoption dynamics. *Journal of Broadcasting and Electronic* Media, 42 (winter), 95-112.

Lin, C.A. (2003). An interactive communication technology adoption model. *Communication Theory,* 13 (4), 345-365.

Lin, C. A., and Jeffres, L.W. (1998). Factors influencing the adoption of multimedia cable technology. Journalism and Mass Communication Quarterly, 75, 341-352.

Lindloff, T.R., Shatzer, M.J., and Wilkinson, D. (1988). Accommodation of video and television in the American family. In J. Lull (Ed.), *World Families Watch Television* (pp. 158-192). Newbury Park, CA: Sage Publications.

Lindstrom, P. (1989). Home video: the consumer impact. In M. Levy (Ed.), *The VCR Age. Home Video and Mass Communication* (pp. 40-49). Newbury Park, CA: Sage.

Ling, R., Nilsen, S., and Granhaug, S. (1999). The domestication of video-on-demand: folk understanding of a new technology. *New Media and Society*, 1 (1), 83-100.

Livingstone, S. (1992). The meaning of domestic technologies: a personal construct analysis of familial gender relations. In R. Silverstone and E. Hirsch (Eds.), *Consuming Technologies: Media and Information in Domestic Spaces* (pp. 113-131). London: Routledge.

Livingstone, S. (1998). Audience research at the crossroads: the 'implied audience' in media and cultural theory. *European Journal of Cultural Studies*, 1 (2), 193-217.

Livingstone, S. (1999). New media, new audiences? *New Media and Society*, 1 (1), 59-66.

Livingstone, S. (1999b). Personal computers in the home –what do they mean for children? *Intermedia*, 27(2), 4-6.

Livingstone, S. (2002). *Young People and New Media*. London: Sage.

Livingstone, S. (2003). The changing nature of audiences: from the mass audience to the interactive media user. In A. Valdivia (Ed.), *Companion to Media Studies* (pp. 337-359). Oxford: Blackwell.

Livingstone, S. (2003b). *The Changing Nature and Uses of Media Literacy*. Retrieved from: Mediaculture online www.mediaculture-online.de and http://eprints.lse.ac.uk/13476/. London: London School of Economics.

Livingstone, S. (2007). On the material and the symbolic: Silverstone's double articulation of research traditions in new media studies. *New Media and Society*, 9 (1), 16-24.

Livingstone, S., and Bovill, M. (1999). *Young People and New Media*. London: Social Psychology Department: London School of Economics.

Livingstone, S., and Bovill, M. (1999). *Young people, New media: Final Report of the Project 'Children Young People and the Changing Media Environment'.* An LSE Report.London: London School of Economics and Political Science. Retrieved from: http://eprints.lse.ac.uk/21177

Livingstone, S., and Bovill, M. (2001). *Children and their Changing Media Environment: A European Comparative Study*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Livingstone, S., and Das, R. (2009). The end of audiences? Paper presented at the *Transforming Audiences II Conference*, September 2009. London:University of Westminster.

Livingstone, S., Holden, J. J., and Bovill, M. (1999). Children's changing media environment. Overview of a European comparative study. In C. von Feilitzen and U. Carlsson (Eds.), *Children and Media. Image, Education, Participation* (pp. 39-51). Goeteborg: The UNESCO International Clearinghouse on Children and Violence on the Screen at Nordicom.

Lobe, B., Livingstone, S., and Haddon, L. (Eds.). (2007). *Researching Children's Experiences Online Across Countries: Issues and Problem in Methodology*. Report from the EU Kids Online network, June 2007.

Lull, J. (1980). The social uses of television. *Human Communication Research*, 6 (3), 197-209.

Lull, J. (1985). Ethnographic studies of broadcast media audiences: notes on methods. In J. Dominick and J. Fletcher (Eds.), *Broadcasting Research Methods*. Boston: Allyn and Bacon.

Lull, J. (Ed.) (1988). *World Families Watch Television.* Newbury Park, CA: Sage.

Mackay, H. (1995). Patterns of ownership of IT devices in the home. In N. Heap, R. Thomas, G. Einon, R. Mason and H. Mackay (Eds.), *Information Technology and Society: A Reader* (pp. 311-340). London: Sage.

Mackay, H. (1997) Consuming Communication Technologies at Home. In H. Mackay (Ed.), *Consumption and Everyday Life* (pp. 259-308). London: Sage.

Mackay, H. (2007). Analogue switch-off: multi-channel viewing by 'the reluctant 50%'. *International Journal of Cultural Policy*, 13 (1), 33-48.

Mackay, H., and Gillespie, G. (1992). Extending the social shaping of technology approach: ideology and appropriation. *Social Studies of Science*, 22 (4), 685-716.

Mackay, H., and Ivey, D. (2004). *Modern Media in the Home: An Ethnographic Study*. Rome: John Libbey Publishing.

Mackay, H., and O'Sullivan, T. (Eds.) (1999). *The Media Reader: Continuity and Transformation*. London: Sage.

MacKenzie, D. A. (1987). Missile accuracy: a case study in the social processes of technological change. In W. E. Bijker, T. P. Hughes and T. J. Pinch (Eds.), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (pp. 195-222). Cambridge, Mass.: M.I.T. Press.

MacKenzie, D.A. (1990). *Inventing Accuracy: a Historical Sociology of Nuclear Missile Guidelines*. Cambridge: MIT Press.

MacKenzie, D.A. (1996). *Knowing Machines: Essays on Technical Change*. Cambridge, Mass.: MIT Press.

MacKenzie, D.A., and Wajcman, J. (1985). Introductory essay. In D. MacKenzie and J. Wajcman (Eds.), *The Social Shaping of Technology: How the Refrigerator Got Its Hum* (pp. 2-25). Philadelphia: Open University Press.

MacKenzie, D. A., and Wajcman, J. (Eds.). (1999). *The Social Shaping of Technology*. (2nd edn). Philadelphia: Open University Press.

Mahler, A., and Rogers, E. M. (1999). The diffusion of interactive communication innovations and the critical mass: the adoption of telecommunications services by German banks. *Telecommunications Policy*, 29, 719-740.

Mansell, R. (1996). Communication by design? In R. Mansell and R. Silverstone (Eds.), *Communication by Design: The Politics of Information and Communication Technologies* (pp. 15-43). Oxford: Oxford University Press.

Mansell, R., and Silverstone, R. (Eds.) (1996). *Communication by Design: The Politics of Information and Communication Technologies*. Oxford: Oxford University Press.

Marvin, C. (1988). *When Old Technologies Were New: Thinking About Communications in the Late Nineteenth Century*. Oxford: Oxford University Press.

Maslow, A. H. (1987). *Motivation and Personality*. New York: Longman.

Maynes, E. S. (1976). *Decision-Making for Consumers: An Introduction to Consumer Economics.* New York: Macmillan Publishing Co.

McCracken, G. (1988). *Culture and Consumption: New Approaches to the Symbolic Character of Consumer Goods and Activities*. Bloomington, Ind.: Indiana University Press.

McGougan, J. (1999). The challenge of convergence to audiovisual regulation. In C. Marsden and S. Verhulst (Eds.), *Convergence in European Digital TV Regulation* (pp. 175-190). London: Blackstone Press.

McLuhan, M. (1964). *Understanding Media*. London: Routledge.

McMillan, S. J. (2002). Exploring models of interactivity from multiple research traditions: users, documents and systems. In L.A. Lievrouw and S. Livingstone (Eds.), *The Handbook of New Media* (pp. 163-182). London: Sage.

McQuail, D. (1997). *Audience Analysis*. London: Sage.

Mercier, P., and Barwise, P. (2004). *Digital Television in the UK: Consumer Responses to Interactivity Report*, January 2004. London: London Business School.

Miles, I. (1988). *Information Horizons: The Long-Term Social Implications of New Information Technologies*. Aldershot: Elgar.

Miles, I. (1988b). *Home Informatics: Information Technology and the Transformation of Everyday Life*. London: Pinter.

Miles, I., Cawson, A., and Haddon, L. (1992). The shape of things to consume. In R. Silverstone and E. Hirsch (Eds.), *Consuming Technologies*. (pp. 67-81). London: Routledge.

Miller, D. (1987). *Material Culture and Mass Consumption*. Oxford: B. Blackwell.

Miller, D. (Ed.) (1995). *Acknowledging Consumption*. London: Routledge.

Moores, S. (1988). The box on the dresser: memories of early radio and everyday life. *Media, Culture and Society*, 10, 23-40.

Moores, S. (1993). *Interpreting Audiences: the Ethnography of Media Consumption*. London: Sage.

Moores, S. (1996). *Satellite Television and Everyday Life*. Luton: University of Luton Press.

Morley, D. (1986). Family *Television: Cultural Power and Domestic Leisure*. London: Comedia.

Mosco, V. (2005). *The Digital Sublime: Myth, Power, and Cyberspace*. Cambridge: MIT Press.

Murdock, G. (1989). Critical inquiry and audience activity. In B. Dervin, L. Grossberg, B.J. O'Keefe and E. Wartella (Eds.), *Rethinking Communication Vol.2*: *Paradigm Exemplars* (pp. 226-249). London: Sage.

Murdock, G., and Golding, P. (1989). Information, poverty and political inequality: citizenship in the age of privatized communications. *Journal of Communication*, 39(3), 180-198.

Murdock, G., Hartmann, P., and Gray, P. (1992). Contextualizing home computing. resources and practices. In R. Silverstone and E. Hirsch (Eds.), *Consuming Technologies: Media and Information in Domestic Spaces* (pp. 146-160). London: Routledge.

Naughton, J. (2006). *Blogging and the Emerging New Media Ecosystem.* Oxford: Oxford University Press.

Negrine, R. (1985). Cable television in Great Britain. In R. Negrine (Ed.), *Cable Television and the Future of Broadcasting* (pp. 103-133). London: Croom Helm.

Negrine, R. (1988a). New media in Britain: is there a policy?. In K. Dyson, P. Humphreys, R. Negrine and J.P. Simon (Eds.), *Broadcasting and New Media Policies in Western Europe* (pp. 223-250). London: Routledge.

Negrine, R. (1988b). Introduction. satellite broadcasting: an overview of the major issues. In R. Negrine (Ed.), *Satellite Broadcasting: The Politics and Implications of the New Media.* (pp. 1-22). London: Routledge.

Negrine, R. (1994). *Politics and the Mass Media in Britain* (2nd edn). London: Routledge.

Neuendorf, K.A., Atkin, D.J., and Jeffres, L.W. (1998). Understanding adopters of audio information innovations. *Journal of Broadcasting and Electronic Media*, 41, 80-95.

Neuendorf, K. A., Jeffres, L. W., & Atkin, D. (2000). The television of abundance arrives: cable choices and interest maximization. *Telematics and Informatics*, 17, 169-97.

Neuman, W.R. (1991). *The Future of the Mass Audience*. Cambridge: Cambridge University Press

Nicosia, F. M. (1966). *Consumer Decision Processes: Marketing and Advertising Implications.* Englewood Cliffs, N.J.: Prentice-Hall.

Noll, A.M. (1999, October). The Impending death of over-the-air television. *Info,* 1 (5), 389-391.

Noll, A.M. (2004). Internet TV: definition and prospects. In E. Noam, J. Groebel, and D. Gerbarg (Eds.), *Internet Television* (pp. 1-8). Mahwah, NJ: Lawrence Erlbaum.

Noll, A.M. (2004). TV over the internet: technological challenges. In E. Noam, J. Groebel, and D. Gerbarg (Eds.), *Internet Television* (pp. 19-29). Mahwah, NJ: Lawrence Erlbaum.

Ohmann, R. (Ed.). (1996). *Making and Selling Culture.* Hanover: Wesleyan University Press.

Oudshoorn, N., and Pinch, T. (2003). Introduction: how users and non-users matter. In N. Oudshoorn and T. Pinch (Eds.), *How Users Matter: The Co-construction of Users and Technology* (pp 1-25). Cambridge, Massachusetts: The MIT Press.

Palmgreen, P., and Rayburn, J.D. (1985). An expectancy-value approach to media gratification. In K.E. Rosengren, L.A. Wenner, and P. Palmgreen (Eds.), *Media Gratifications Research: Current Perspectives* (pp. 61-72). Beverly Hills, CA: Sage.

Papathanassopoulos, S. (2002). *European Televsion in the Digital Age*. Cambridge: Polity Press.

Parks, L. (2008). *Goodbye Rabbit Ears: Thoughts About the Digital TV Transition*. FlowTV. 11 Dec.2008. Austin: University of Texas. Retrieved from: http://flowtv.org/?p=2266

Paterson, R., and Wilson, E.J., III (2000). New IT and social inequality: resetting the research and policy agenda. *Information Society*, 6(1), 77-86.

Perse, E.M., and Courtright, J.A. (1993). Normative images of communication media: mass and interpersonal channels in the new media environment. *Human Communication Research*, 19, 485-503.

Pierson, J. (2006). Domestication at work in small businesses. In T. Berker, M. Hartmann, Y. Punie, and K. Ward (Eds.), *Domestication of Media and Technology* (pp. 205-226). Maidenhead: Open University Press.

Pierson, J., and Lievens, B. (2005). Configuring living labs for a "thick" understanding of innovation. Paper presented at *EPIC 2005 (Ethnographic Praxis in Industry Conference, organised by Microsoft and Intel)*, 13-15 November 2005. Redmond (USA), pp. 114-127.

Pierson, J., Jacobs, A., and Lieven De Marez, L. (2008). Archetypical users as starting point for exploring wireless city applications: linking the domestication and diffusion approach. In J. Pierson, E. Manter-Meijer, E. Loos and B. Sapio (Eds.), *Innovating For and By Users* (pp. 107-120). Brussels: COST Action 298.

Pinch, T., and Bijker, W. (1984). The social construction of facts and artifacts: or how the sociology of sciences and technology might benefit from each other. *Social, Studies of Science*, 14, 299-334.

Pinch, T., and Bijker, W. (1987). The social construction of facts and artifacts: or how the sociology of sciences and technology might benefit from each other. In T. Pinch, W. Bijker and T. Hughes (Eds.),. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (pp.17-50). Cambridge, Mass.: MIT Press.

Pinch, T., Bijker, W., and Hughes, T. (Eds.) (1987). *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. Cambridge Mass.: MIT Press.

Plummer, K. (2001). *Documents of Life 2: An Invitation to a Critical Humanism*. London: Sage.

Punie, Y. (1997). Imagining 'non-users': rejection of ICTs in Flemish households. Paper presented at the *Penser Les Usages Conference*, 27-29 May 1997, Arachon.

Punie, Y. (2000). *Domesticatie Van Informatie- En Communicatietechnologie. Adoptie, Gebruik en Betekenis Van Media in Het Dagelijks Leven: Continue Beperking of Discontinue Bevrijding?*. PhD Thesis. Vrije Universiteit Brussel, Brussels.

Punie, Y. (2005). The future of ambient intelligence in Europe- the need for more everyday live. In R. Silverstone (Ed.), *Media, Technology and Everyday Live in Europe* (pp 159-177). Aldershot: Ashgate.

Rafaeli, S., and Sudweeks, F. (1997). Networked interactivity. *Journal of Computer Mediated Communication*, 2 (4). Retrieved from: http://www.usc.edu/dept/annenberg/vol2/issue4/reafeli.sudweeks.html

Rasmussen, T. (1999). New media change: sociological approaches to the study of new media. In J.F.Jensen and C.Toscan (Eds.), *Interactive Television: TV of the Future or the Future of TV?* (pp. 149-168). Aalborg: Aalborg University Press.

Raudaskoski, P., and Rasmussen, T.A.(2003). Cross media and (inter)active media use – a situated perspective. In T. Hujanen and G. F. Lowe (Eds.), *Broadcasting and Convergence: New Articulations of the Public Service Remit* (pp. 313-325). Tampere: Nordicom.

Reeves, B., and Nass, C. (1996). *The Media Equation: How People Treat Computers, Television and New Media Like Real People and Place*. New York: Cambridge University Press.

Reiner, R., Allen, J., and Livingstone, S. (2001). *The Audience For Crime Media 1945-91: A Historical Approach to Reception Studies [online].* London: LSE Research Online. Retrieved from: http://eprints.lse.ac.uk/1007

Riesman, D. (1964). *Abundance For What? And Other Essays.* London: Chatto and Windus.

Robertson, T.S. (1967). The Process of Innovation and the Diffusion of Innovation. *Journal of Marketing*, 31(1), 14-19.

Robertson, T.S. (1971). *Innovative Behaviour and Communication*. New York: Holt, Rinehart, & Winston.

Roe, K. (1996). The uses and gratifications approach: a review of some methodological issues. *Journal of Behavioural and Social Sciences*, 1, Japan: Tokai University.

Rogers, E.M. (1962). *Diffusion of Innovations*. New York: The Free Press

Rogers, E.M. (1986). *Communication Technology: The New Media in Society*. New York: The Free Press.

Rogers, E.M. (1995). *Diffusion of Innovations* (4th edn). New York: The Free Press.

Rogers, E.M. (2003). *Diffusion of Innovations*. (5th edn). New York: The Free Press

Rogers E.M., Daley, H.M., and Wu, T.D. (1982). *The Diffusion of Home Computers: An Exploratory Study*. Unpublished manuscript, Institute for Communication Research, Stanford University.

Rogers, E.M., and Larsen, J.K. (1984). *Silicon Valley Fever: Growth of High-Technology Culture*. New York: Basic Books.

Rogers, E.M., and Shoemaker, F.F. (1971). *Communication of Innovation*. New York: The Free Press.

Rompaey, V.V., Roe, K., and Struys, K. (2002). Children's influence on internet access at home: adoption and use in the family context. *Information, Communication and Society*, 5(2), 189-206.

Rose, F. (2000). TV or not TV. *Wired* March 2000. Issue 08.03. Retrieved from: www.wired.com/wired/archive/8.03/bskyb_pr.html

Rosenberg, N. (1994). *Exploring the Black Box: Technology, Economics and History*. New York: Cambridge University Press.

Royse, P, Lee, J., Undrahbuyan, B., Hopson, M., Consalvo, M. (2007). Women and games: technologies of the gendered self. *New Media and Society*, 9(4), 555-578.

Salvaggio, J.L., and Bryant, J. (Eds.) (1989). *Media Use in the Information Age: Emerging Patterns of Adoption and Computer Use*. New Jersey: Lawrence Erlbaum Associates.

Scannell, P. (1996). *Radio, Television and Modern Life: A Phenomenological Approach.* Oxford, UK: Blackwell

Scannell, P., and Cardiff, D. (1991). *A Social History of British Broadcasting. Vol. 1, 1922-1929: Serving the Nation.* Oxford: Basil Blackwell.

Schiffman, L., Bednall, D., Watson, J., and Kanuk, L. (1997). *Consumer Behaviour.* Sydney: Prentice Hall.

Schlesinger, P. (1987) *Putting 'Reaility' Together.* London: Methuen.

Schot, J., and Bruheze, A.A. (2003). The mediated design of products, consumption and consumers in the twentieth century. In N. Oudshoorn and T. Pinch (Eds.), *How Users Matter: The Co-construction of Users and Technology* (pp. 229-246). Cambridge Massachusetts: The MIT press.

Schroeder, K., Dortner, K., Kline, S., and Murray, C. (2003). *Researching Audiences*. London: Arnold.

Schultz, T. (2000). Mass media and the concept of interactivity: an exploratory study of online forums and reader email. *Media Culture and Society*, 22, 205-221.

Schumpeter, J.A. (1976). *Capitalism, Socialism and Democracy*. London: Allen and Unwin.

Schumpeter, J.A. (1982). *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*. Philadelphia: Porcupine Press.

Seaton, J. (1997). Broadcasting history. In J. Curran and J Seaton (Eds.), *Power Without Responsibility: The Press and Broadcasting in Britain*, (pp. 109-236). London: Routledge

Selwyn, N. (2003). Apart from technology: understanding people's non-use of information and communication technologies in everyday life. *Technology in Society, 25*, 99-116.

Silva, E. (2000). *The politics of Consumption @ Home: Practices and Disposition in the Uses of Technologies. In Pavis Papers in Social and Cultural Research* [Online]. Milton Keynes, UK: The Open University. Retrieved from: http://www.open.ac.uk/socialsciences/staff/ebsilva/info.html.

Silverstone, R. (1991). *Beneath the Bottom Line: Households and Information and Communication Technologies in the Age of the Consumer*. Research Paper No.17, Centre for Research and Innovation, Culture and Technology, Brunel University.

Silverstone, R. (1994). *Television and Everyday Life*. London: Routledge.

Silverstone, R. (Ed.) (2005). *Media, Technology and Everyday Life in Europe*. Aldershot: Ashgate.

Silverstone, R. (2006). Domesticating domestication. Reflections on the life of a concept. In T. Berker, M Hartmann, Y Punie and K. Ward (Eds.), *Domestication of Media and Technology* (pp. 229-248). Meidenhead: Open University Press.

Silverstone, R., and Haddon, L. (1996). Design and domestication of information and communication technologies: technical change and everyday life. In R. Mansell and R. Silverstone (Eds.), *Communication By Design: The Politics of Information and Communication Technologies* (pp.44-74). Oxford: Oxford University Press.

Silverstone, R., and Haddon, L. (1996b). *Television, Cable and AB Households.* A report for Telewest. August, University of Sussex, Falmer.

Silverstone, R., Hirsch, E., and Morley, D. (1992). Information and communication technologies and the moral economy of the household. In R. Silverstone and E Hirsch (Eds.), *Consuming technologies: Media and Information in Domestic Spaces* (pp.15-31). London: Routledge.

Silverstone, R., Morley, D., Dahlberg, A., and Livingstone, S. (1989). *Families, Technologies and Consumption: The Household and Information and Communication Technologies*. CRICT Discussion Paper, Brunel University.

Simmel, G. (1957). Fashion. *American Journal of Sociology*, 62 (6), 541-549.

Simmel, G. (1990). *The Philosophy of Money* (2nd edn). Translated by Frisby, D., and Bottomore, T. London: Routledge.

Smith, P. (2007). *The Politics of Television Policy: The Introduction of Digital Television in Great Britain.* New York: Edwin Mellen Press.

Sorensen, K. (2006). Domestication: the enactment of technology. In T. Berker, M. Hartmann, Y. Punie and K. Ward (Eds.), *Domestication of Media and Technology* (pp. 40-61). Maidenhead: Open University Press.

Sparks, C., and Campbell, M. (1987). The inscribed reader of the British quality press. *European Journal of Communication*, 2(4), 445-459.

Spiegel, L (1992). *Make Room for TV: Television and the Family Ideal in Postwar America*. Chicago: The University of Chicago Press.

Spiegel, L (2001). Media homes: then and now. *International Journal of Cultural Studies*, 4(4), 385-411.

Star, S.L., and Ruhleder, K. (1996). Steps toward an ecology of infrastructure: design and access for large information spaces. *Information Systems Research*, 7 (1), 111-134.

Starks, M. (2007). *Switching to Digital Television: UK Public Policy and the Market.* Bristol, UK: Intellect.

Stipp, H. (1999). Convergence now? *The International Journal of Media Management*, 1(1), 10-13.

Stoeber, R. (2004). What media evolution is. A theoretical approach to the history of new media. *European Journal of Communication*, 19(4), 483-505.

Swann, P. (2000). *TV Dot Com: The Future of Interactive Television*. New York: TV Books.

Tannenbaum, P.H. (Ed.) (1980). *The Entertainment Functions of Television*. Hillsdale: Lawrence Erlbaum Associates.

Tarkka M. (2002). Digital television and the consumer perspective. Report from the Seminar *Digital Television as a Consumer Platform*, 12 -14 September, Tórshavn, Faroe Islands. National Consumer Research Centre, Discussion Papers 34/2003, Helsinki.

Taylor, B.C., Demont-Heinrich, C., Broadfoot, K., Dodge, J., and Jian, G. (2002). New media and the circuit of cyber-culture: conceptualizing napster. *Journal of Broadcasting and Electronic Media*, 46(4), 607-629.

Theodoropoulou, V. (2003). Consumer convergence: digital television and the early interactive audience in the UK. In G. Ferrell Lowe and T. Hujanen (Eds.), *Broadcasting and Convergence. New Articulations of the Public Service Remit* (pp. 285-297). Goeteborg: Nordicom.

Thompson, G.V. (1971). The moral economy of the English crowd in the eighteenth century. *Past and Present,* 50, 76-136.

Towler, R. (2001). *The Public's View 2001*. An ITC/BSC research publication. Research conducted by British Market Research Bureau International.

Towler, R. (2002). *The Public's View 2002*. An ITC/BSC research publication. Research conducted by British Market Research Bureau International.

Turk, T., Sapia, B., and Palombini, I.M. (2008). The adoption of terrestrial digital TV: technology push, political will or users choice? In.E. Loos, L. Haddon and E. Mante-Meijer (Eds.), *The Social Dynamics of Information and Communication Technology* (pp. 39-54). Hampshire, Ashgate.

Turow, J., and Nir, L. (2000). *The Internet and the Family 2000. The view from the Parents*. The view from Kids. No 33 Report Series, The Annenberg Public Policy Center of the University of Pennsylvania.

Vahimagi, T. (1994). *British Television. An Illustrated Guide*. British Film Institute. New York: Oxford University Press.

Van den Broeck, W., and Pierson, J. (Eds.) (2008). *Digital Television in Europe. Cost Action 298*. Brussels: Vubpress

Van den Broeck, W., Pierson, J., and Lievens, B. (2007). Video-on-demand: towards new viewing practices. *Observatorio Journal*, 3, 023-044.

Van Zoonen, L. (1994). *Feminist Media Studies*. London: Sage.

Veblen, T. (1925). *The Theory of the Leisure Class: An Economic Study of Institutions*. London: George Allen and Unwin.

Veljanovski, C. G., and Bishop, W. D. (1983). *Choice by Cable*. London: The Institute of Economic Affairs.

Watkins, S.C (2009). *The Young and the Digital. What the Migration to Social Network Sites, Games, and Anytime Anywhere Media Means for Our Future*. Boston: Beacon.

Watkins, S.C. (2009b). *The Fall of Myspace: Race, Class and Social Media*. Retrieved from: www.theyoungandthedigital.com/book/the-fall-of-myspace-race-class-and-social-media/

Weber, I., and Evans, V. (2002). Constructing the meaning of digital television in Britain, the United States and Australia. *New Media and Society*, 4(4), 436-456.

Williams, R. (1974). *Television: Technology and Cultural Form*. New York: Schocken Books.

Williams, R. (1990) *Television: Technology and Cultural Form*. (2nd edn). London: Routledge.

Wood, J. (1994). Cellphones on the Clapham omnibus – a lead up to a cellular mass market. In R. Mansell, (Ed.), *Management of Information and Communication Technologies* (pp. 248-360). London: Aslib.

Wood, L.A., and Kroger, R.O. (2000). *Doing Discourse Analysis: Methods for Studying Action in Talk and Text*. London: Sage.

Woodward, K. (Ed.) (1997). *Identity and Difference*. The Open University, London: Sage.

Woodward, K. (1997). Concepts of identity and difference. In Woodward, K. (Ed.), *Identity and Difference* (pp. 7-61). The Open University, London: Sage.

Woolgar, S. (1991). Configuring the user. In Law, J. (Ed.), *A Sociology of Monsters: essays on power, technology and domination* (pp. 57-102). London: Routledge.

Woolgar, S. (1996). Technologies as Cultural Artefacts. In Dutton, W. (Ed.), *Information and Communication Technologies: Visions and Realities* (pp. 87-102). Oxford: Oxford University Press.

Wyatt, S. (2003). 'Non-users also matter: the construction of users and non-users of the internet. In N. Oudshoorn and T. Pinch (Eds.), *How Users Matter: The Co-Construction of Users and Technology* (pp. 67-80). Cambridge Massachusetts: The MIT Press.

Commercial research – Reports – News articles

BMRB International Ltd. *Mintel Records of 1994.*

BMRB International Ltd. *Digital Viewers Survey*. July 2000

Broadcasters' Audience Research Board (BARB). *TV Facts: Television Ownesthip in Private Domestic Households 1956-2011.*Retrieved from: www.barb.co.uk/facts/tvOwnershipPrivate?_s=4

BSkyB. *Announced Results for the Year Ended 30 June 1998.* 12 August 1998.

BSkyB. *Announced Results for the Six Months Ended 31 December 1998.* 10 February 1999

BSkyB. *Announced Third Quarter Results 1999.* 5 May 1999.

BSkyB. *Announced Results for the Three Months Ended 30 September 1999*. 15 October 1999.

BSkyB. *Announced Results for the Six Months Ended 31 December 1999*. 9 February 2000.

BSkyB. *Announced Annual Report 1999.*

BSkyB. *Announced Results for the Nine Months Ended 31 March 2000*. 10 May 2000.

BSkyB. *Preliminary Results* 2000. 26 July 2000.

BSkyB. *Announced Results for the Year Ended 30 June 2000*. 26 July 2000.

BSkyB. *Announced Results for the Six Months Ended 31 December 2000*. 7 February 2001.

BSkyB. *Announced Results for the Nine Months Ended 31 March 200*1. 9 May 2001.

BSkyB. *Announced Results for the Year Ended 30 June 2001*. July 2001.

BSkyB Corporate Communications. (2005). *Sky Fact Book*. Retrieved from: http://corporate.sky.com/documents/pdf/1ffb247d89b6490c9cd3dc7a4f24f4eb/fact_book_2005.pdf

Central Statistical Office. (1992). *Family Expenditure Survey.* ESDS Government, UK Data Archive

Consumers' Association. (2001). *Turn On, Tune In, Switched Off: Consumers Attitudes to DTV*. March 2001

Cumberbatch, G. (1999). *Television: The Public's View 1999*. London: ITC Research Publication.

Cumberbatch, G. Wood, G. and V. Littlejohns (2000). *Television: The Public's View 2000*. London: ITC Research Publication, The Communications Research Group.

Department for Culture, Media and Sport and Department for Business, Innovation and Skills. *'Digital Britain', Final Report.* June 2009. London: HMSO. Retrieved from: http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/16_06_09digitalbritain.pdf

Department of the Environment, Transport and the Regions. *1998-99 Survey of English Housing*.

Department of Trade and Industry and Department for Culture Media and Sport, 2000. *UK Government White Paper, A New Future for Communications.* London: DTI/DCMS, December 2000. Retrieved from: www.dti.gov.uk. Also available as Summary of proposals at www.key4biz.it/files/000038/00003816.pdf

Digital TV Group. (20.12.00) *Another Digital Milestone!* retrieved from: www.dtg.org.uk/news/uknews/latest_milestone.htm

Gibson, O. (2001). Research reveals digital's dilemma. *Mediaweek.*

IDATE (2000). *Development of Digital TV in Europe: United Kingdom*, 2000 Report. Institut de l'audiovisuel et des telecommunications. Retrieved from: http://ec.europa.eu/archives/ISPO/infosoc/telecompolicy/en/dtv_uk2000v4.pdf

Independent Television Commission, OFT and OFTEL. (2000). *Report: The Availability, Affordability and Accessibility of Digital Television.* A Joint Consultation to the Government. November, 2000.

Independent Television Commission. (2002). *Developments in the UK Television Market*. March 2002.

Independent Television Commission. (2002). *Progress Toward Digital Switchover – An ITC Consultation*. October 2002.

Independent Television Commission(2003). *The UK Television Market: An Overview.* September 2003.

Kagan Euromedia. *Euromedia* May 2000. Published by Kagan World Media.

Mediaweek, (2001). Optimedia. *TV Ads: The Future.* 9 March 2001. Retrieved from: www.mediaweek.co.uk/news/507180/TV-ads-future/?DCMP=ILC-SEARCH

Mori. (2001). *Digital Television 2001.* London: Department for Culture, Media and Sport. June 2001.

National Media Museum. *British Television: A Chronology*. Retrieved from: www.nationalmediamuseum.org.uk/pdfs/TVchronolgy.pdf.

National Statistics (2000, September). *First Release: Internet Access.* Bulletin from the July National Statistics Omnibus Survey. Issued by National Statistics, London.

Ofcom (2006). *The Communications Market: Digital Progress Report, Digital TV. Q3 2006.* Retrieved from: http://stakeholders.ofcom.org.uk/market-data-research/tv-research/dtv/dtu_2006_q3/

Ofcom (2007a). *The Communications Market: Digital Progress Report. Digital TV, Q2 2007.*

Ofcom (2007b). *Communications Market Report*. August, 2007. Retrieved from:http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cmr07/

Ofcom (2008). *The Communications Market: Digital Progress Report Digital TV. Q3 2008*. Retrieved from: www.ofcom.org.uk/research/tv/reports/dtv/dtu _2008_03/

Ofcom (2009a). *The Communications Market Report 2009.* Retrieved from: http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr09.pdf

Ofcom (2009b). *The Communications Market: Digital Progress Report Digital TV. Q1 2009.* Retrieved from: http://stakeholders.ofcom.org.uk/binaries/research/tv-research/q12009.pdf

Ofcom (2010a). *The Communications Market 2010.* August 2010. Retrieved from: http://stakeholders.ofcom.org.uk/binaries/research/cmr/753567/CMR_2010_FINAL.pdf

Ofcom (2010b). *The Communications Market: Digital Progress Report, Digital TV. Q3 2010.* Retrieved from: http://stakeholders.ofcom.org.uk/binaries/research/tv-research/tv-data/dig-tv-updates/Q3_2010_DTV_Update.pdf

Ofcom (2011) *Communications Market Report: UK.* August, 2011. Retrieved from: http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr11/UK_CMR_2011_FINAL.pdf

Office for National Statistics (1999). *Census and General Household Survey 1998-99.* London: Office for National Statistics.

Office for National Statistics. (2000). *Results From The July National Statistics Omnibus Survey (Online)*. Retrieved from:www.statistics.gov.uk/pdfdir/inter0900.pdf

Office for National Statistics (2000b). *Census, Labour Force Survey 2000.* London: Office for National Statistics.

Office of National Statistics. (2000c). *General Household Survey 2000*. London: Office for National Statistics.

Oftel. (1999). *Consumer Use Of Digital Television.* June 1999.

Oftel. (2000a).*Consumers' Use Of Digital TV - Summary of Oftel Residential Survey Q1.* July, 2000. Retrieved from: www.ofcom.org.uk/static/archive/oftel/publications/research/digi0800.htm

Oftel. (2000b). *Consumers' Use Of Digital TV - Summary of Oftel Residential Survey. Q2*. August, 2000. Retrieved from: www.ofcom.org.uk/static/archive/oftel/publications/research/digi1000.htm

Oftel. (2000c). *Consumers Use Of Internet, Summary of Oftel Residential Survey.* August, 2000. Retrieved from: www.ofcom.org.uk/static/archive/oftel/publications/research/int1000.htm

Oftel. (2000d). *Consumers' Use Of Mobile Telephony, Summary of Oftel Residential Survey.* August, 2000. Retrieved from: www.ofcom.org.uk/static/archive/oftel/publications/research/mob1100.htm

Oftel. (2000e). *Consumers Use Of Mobile Telephony, Summary of Oftel Residential Survey.* November, 2000. Retrieved from: www.ofcom.org.uk/static/archive/oftel/publications/research/2001/q3mobr.htm

Oftel. (2001). *Consumers Use Of Internet, Summary of Oftel Residential Survey.* February, 2001. Retrieved from:www.ofcom.org.uk/static/archive/oftel/publications/research/2001/q4internetr0501.htm

Oxford Internet Survey. (2005). *Report: The Internet In Britain.* Retrieved from: www.oii.ox.ac.uk/microsites/oxis/highlights.cfm

Rose, F. (2000). TV or not TV. *Wired March 2000.* Issue 08.03. Retrieved from: www.wired.com/wired/archive/8.03/bskyb_pr.html

Taylor Nelson Sofres (2001) *Young people and ICT. Findings from a survey conduced Autumn 2001*. Research and Evaluation Series No 5. Department of education and skills. London: DfES/ Becta; NGfL. Retrieved from http://dera.ioe.ac.uk/1679/1/becta_2001_ngflseries_ematuritylearners_report.pdf

Terramedia. *British Satellite Broadcasting: The Full Responsibility*. Retrieved from: http://terramedia.co.uk/reference/documents/BSB.htm

Terramedia. *Take-Up Of Radio And Television In The UK: The Early Years.* Retrieved from: www.terramedia.co.uk/media/change/radio_and_tv_takeup.htm

Terramedia. *Prices of Television Receivers.* Retrieved from: www.terramedia.co.uk/media/change/tv_receiver_prices.htm

Terramedia. *Social Composition Of Early UK Television Audiences*. Retrieved from: www.terramedia.co.uk/media/change/early_tv_audiences.htm

Terramedia Statistics. *Cable Television Subscribers - Broadband Systems*: Retrieved from: www.terramedia.co.uk/statistics/television/cable_tv_subscribers_2.htm

Terramedia Statistics. *Cable Television Subscribers – The First UK Cable Relay System Opened In Gloucester In 1951*. Retrieved from: www.terramedia.co.uk/statistics/television/cable_tv_subscribers.htm

Terramedia. *The Shift From Radio Listening To Television Viewing*. Retrieved from: www.terramedia.co.uk/media/change/shift_from_radio_to_TV.htm

T-Learning Study. (2000). *News Learning With Video-Rich Multimedia.* October 2000. Retrieved from: www.pjb.co.uk/t-learning/lvmoct00.htm

Tomlinson, H. (2001) *Sky's Interactive TV Fails To Click With Viewers*. The Independent -15 April 2001. Retrieved from: www.independent.co.uk/ news/business/news/skys-interactive-tv-fails-to-click-with-viewers-681389.html

Towler, R. (2001). *The Public's View 2001*. London: ITC/BSC research publication.

Towler, R. (2002). *The Public's View 2002*. An ITC/BSC research publication.

APPENDICES

APPENDIX 1: The Sky offer

The Television offer (channels, content, pricing, technology features)

Here I present more details about Sky channel offer of the early times of DTV so that we are better positioned to understand the context of the DTV experience. Since launch, Sky digital adopted the 'content is King' motto. It was strongly emphasising the choice of channels it offered and the content variety of its packages. Apart from PSB and the terrestrial free-to-view channels its initial channel pallet composed of 140 channels which very soon rose to 175 in 1999 and beyond 265 channels in 2000. By 2001 Sky was offering up to 330 channels, up to 382 in 2002 and around 403 in 2003.[155] At the time of research, subscription prices varied between approximately £7 to £32 per month[156] depending on the number and type of channels included in the package.[157] The subscriber could choose from a variety of entertainment and movie channels, channels focusing on sports, news and documentaries, music and children's programming as well as adult channels and specialist channels.[158]

---

[155] Source: BSkyB, (2003), *1998-2003 Five years of Sky digital* and BSkyB, (2005), *Sky Fact Book*.

[156] Sky's recommended channel packages: Sky world: £32, Sky movies world: £27, Sky sports world: £27, Sky family pack: £13, Value pack: £7
(in 'Pricing for all customers from 10 September 1999' www.sky.com/sky digital/Pack_SkyValue.html - accessed 14.06.2000). There used to be a small rise in prices every 12 months. By early 2001, for example, prices were up to 34 pounds for the Sky World, 30 for Sky movies world, 28 for Sky sports world, 16 for the Family pack and 10 pound for the Value pack (www.sky.com/skydigital/Info.html accessed 13.03.2001).

[157] Channel packages such as Sky World, the top tier and most expensive one including most channels, Sky Movie World, with an emphasis on movie channels, Sky Sports World, with an emphasis on sports channels, Sky Family Pack, which included an array of entertainment, sport, news & documentaries, music and kids channel and the Value Pack, offering the smallest range of channels were available. All PSB and terrestrial channels, called the 'non-subscription channels' were included in every package. These included the 6 BBC channels, channel 4 and 5 the Money Channel, Community channel, CNN international and more. Along with these, 11 radio and audio services were available, and the opportunity to add any 'stand-alone' premium channel such as Film 4, the Disney channel, MUTV and others with an additional fee for each.

[158] Among others, the following channels were on offer: *Entertainment channels*: Sky One, E4, ITV2, UK Gold, UK Gold 2, Bravo, Living, Granada Plus, Challenge, Paramount Comedy, UK Drama, Discovery Home & Leisure, Sky-Fi Channel, UK Style, UK Style +, Hallmark, QVC, Granada Men & Motors, UK Travel, UK Food, Play UK, Discovery Health. *Sports channels*: Sky Sports 1, Sky Sports 2, Sky Sports 3, Sky Sports Extra. *Movie channels*: Sky Premier, Sky Cinema, Sky Movie Max, Disney channels. *News & Documentary channels*: Discovery Channel, Discovery Travel & Adventure, Discovery Civilisation, CNBC, Discovery Animal Planet, Discovery Sky-Trek, Discovery Wings, Sky News, Fox News, National Geographic, The History Channel, Biography, UK Horizons, Adventure 1, Bloomberg. *Music channels*: MTV, MTV Base, MTV Hits, VH1, VH1 Classic, MTV2, MTV Dance, The Box, Kiss, Q, Smash Hits, Magic, The Saint, Big Blue, Rampage. *Childrens' channels*: Nickelodeon, Nickelodeon Replay, Nickelodeon Junior, Cartoon Network, Cartoon Network Plus, Discovery Kids, Fox Kids, Trouble. *Free to air channels*: BBC1, BBC2, BBC Choice, BBC parliament, BBC 4, BBC News 24, CBBC, Cbeebies, ITV, Channel 4, Channel 5. *Pay channels*: FilmFour, Disney Channels, Artsworld, Music Choice Extra, Star TV, Chelsea TV. *Radio stations*: BBC, Classic FM, Classic Gold, Virgin, Capital Gold, The Mix, Planet Rock, Xfm, Heart FM, Core, Youthfm.com, WRN Euro Max

Sky digital was accessible through the new service of the electronic program guide (EPG) the so called on-screen Sky guide. The EPG helped the user 'navigate' in the multichannel environment. It also provided hyperlinks and opportunities for on demand information like cinema reviews, sports commentary, quizzes, voting and supporting material. But at the time, though innovative as a feature, the EPG was relatively crude technologically and resembled an upgraded and colourful teletext. It was relatively slow, packed with unnecessary information the user had to go through in order to pick a channel and thus quite time consuming, making channel navigation a prolonged task. On top of that it was difficult to use for some consumers who found the two remote controls DTV required somewhat inconvenient (Freeman & Leiter 2007).

To navigate through this variety of channels easier and less time consuming, Sky digital introduced in late September 2000 its video on demand service, Sky+ (TiVo). This Integrated Personal Television Recorder automatically records what the viewers are watching, allows them to pause and replay live programmes, eliminates adverts, and records up to 40 hours of programming. Users can record/retrieve TV programmes transmitted anytime by any channel and watch them at a later time. In a sense, this feature allows users to create their own customised 'channel' comprised of their favourite programmes they can record, store and watch. Building on the early success of PPV, it provides new pathways towards personalised viewing and the construction by the users of their personalised viewing schedules, or 'Me' channels. This feature nowadays allows the user to indeed 'intervene' in the broadcasting process and turn DTV to a consumer driven medium; yet at the time of the study had not been introduced and thus was not discussed with my informants.

The Interactivity offer

'On-line' interactive services.

With the launch of 'Open….' in October 1999, users could engage with home shopping with participating retailers such as WHS, Asda, CPW, Comet, Dixons, Dominos Pizza and others. Users who held accounts with HSBC, Abbey National, The Woolwich or Egg could check their bank or credit card accounts, set direct debits or transfer money. Additionally, they could play games from an arguably limited variety of classic games such as Tetris and Beehive Bedlam, action games, quizzes and puzzles. These were rather unsophisticated in their graphic design, however provided top scorers

the opportunity to win prizes. 'Open....' users could also email from their TV using their remote control or the keypad and from June 2001 got access to a facility that allowed text messaging to mobile phones through the TV (with the use of Sky remote control or keypad). They had access to an information service providing entry to UpMyStreet, the Yellow Pages, the UK Phonebook, and Cinema Listings, and also a Holidays section with opportunities to book a holiday with Going Places, Thomascook.com or First choice. Sports betting (for users over 18) was also introduced in 2001 and proved to be very successful as viewers would place bets on their favourite sports through their TV set.[159]

'Enhanced' interactive services

The first two enhanced Sky digital services introduced were Sky Sports Active (SSA), that offered instant replays, match statistics, highlights and alternative camera angles of football games and other sport events and Sky News Active (SNA) which offers background and updates on various news stories, weather updates, and other information. SSA and SNA are permanent features of their channels (Sky Sports and Sky News). In this category of enhanced interactivity we can add BBCi, the BBC's interactive TV services offering news updates, quizzes, polls, additional video or audio features.[160] There is also the stand-alone PPV feature which was introduced in February 1999 and worked through the EPG allowing users to order films of their taste and digital radio then offering access to 11 radio stations through the TV.

The early relative success of enhanced interactivity, evidence of which is later provided in the FGDTV survey, led to the development of various other in-programme services. Viewers can vote, participate in quizzes, communicate with producers, seek background information on the show they are watching, use camera angles of their choice etc. Enhanced features of programmes like *Big Brother*, *Wimbledon*, *Walking with Dinosaurs* and *Test the Nation* were amongst the most successful early enhanced interactive services.

As regards enhance services it is interesting that when the viewer is using an interactive feature - even in the case when he/she cannot or does not want to follow the programme on the 'window' insert while using it - this feature is always thematically

---

[159] Source: http://www.sky.com/skycom/getsky
[160] Such was the feature in FA cup final in May 2003 for example whereby users could watch the game, view statistics, review earlier highlights, access information about players etc.

related, or *relevant* and complementary to the programme watched. Thus in most cases, it is the *programme* and the viewer's interest (or lack of interest) in it that triggers use of the enhanced features (apart from mere curiosity). Such features do not have a standard format. The nature of such services and what they allow the viewer do, to begin with, depends on the nature of the programme they are attached to.
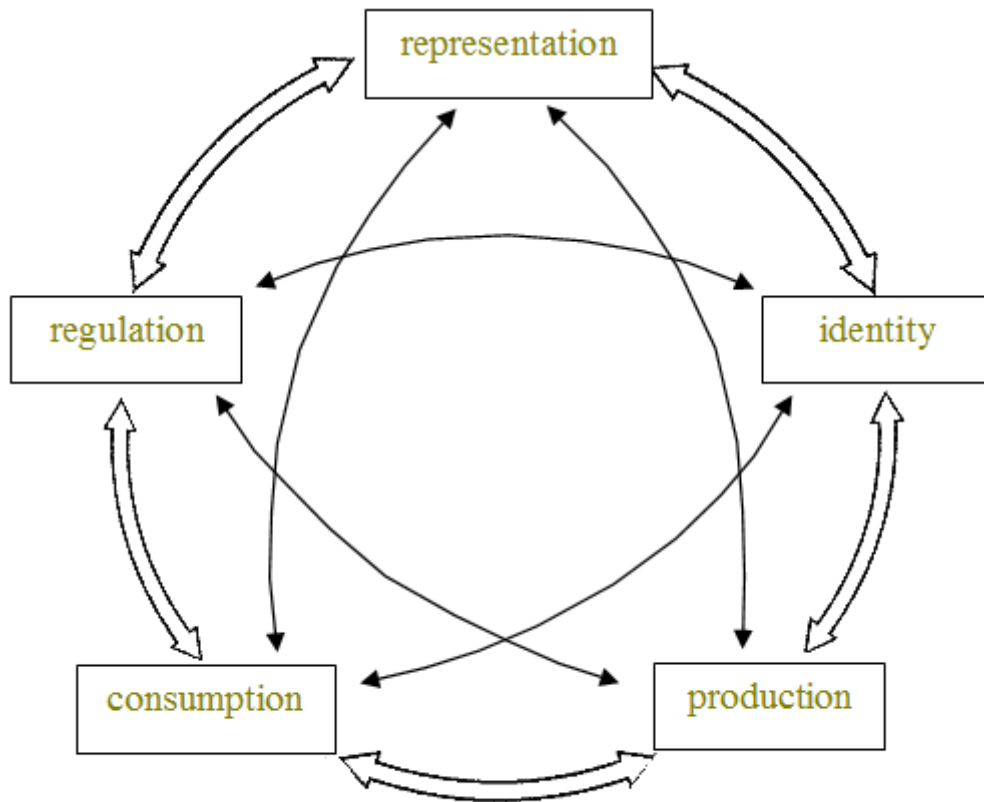
The Circuit of Culture

Schematic representation of the circuit of culture (du Gay et al., 1997, p. 3)

APPENDIX 3: Facts and details on methodology

DTV adopter calculation table and rationale

Table 3.1 demonstrates Rogers's (1962, 1995) adopter categories, indicating that an innovation is at an early adoption stage when it is taken up by 2.5% to 16% of the population, reaches early majority once it is acquired by 16% to 50%, and enters the late majority stage when 50% to 85% of the population have taken it up etc. *Table 3.1a* shows the percentage of the population that must have taken up an innovation by the end of each adopter category. This I have calculated by adding the % of the adopters that fall in the previous category to the % of adopters that fall in the category at question. For example, in this way, the % of the population that has taken up DTV by the end of early adopters category is: 2.5% (% of adopters that compose the innovator category) + 13.5% (% of adopters that compose the early adopters category) = 16%

Table 3.1.1 shows the stage of adoption DTV was when the sample for the FGDTV survey was drawn. At that time approximately 5.25 million UK households had DTV, of which 3.8m had Sky digital. Taking as a population the number of UK households, it is estimated that during August 2000, DTV in the UK was entering the early majority stage. In particular, and as the calculations show, we can infer that the FGDTV survey covers the innovators, the early adopters and 14.9% of the early majority. The steps and arithmetic types based on which calculations were performed are provided in parentheses on table 3.1.1

Sky digital users that had taken it up by August 2000, and thus the participants in the research, will be defined as the 'first generation' DTV audience, because of their innovativeness (Rogers 1995) -being in their majority early adopters- and because the medium itself was at an early stage of its life cycle. By January 2001 when the survey was carried out, Sky digital was a multichannel, interactive service, but provided few opportunities of enhanced interactive use, something that has changed radically since with the increasing introduction of enhanced, in-programme interactive features. In this sense Sky digital's offering at the time can be considered as first generation DTV.

Table 3.1 **Classification of individuals into adopter categories** (Rogers, 2003, p. 281)

	Innovators	Early adopters	Early majority	Late majority	Laggards
% of all adopters	2.5	13.5	34	34	16

From which it is calculated that:

Table 3.1a

	Innovators stage	Early adopters stage	Early majority stage	Late majority stage	Laggards stage
% of population that has taken up the innovation by the end of each adopter category stage	2.5	16.0	50	84	100

Table 3.1.1 **Stage of DTV diffusion/ tale-up by August 2000**

Stage of DTV diffusion calculation table	
A. UK TV households 2000*	24 million
B. UK DTV (household) penetration by August 2000**	5 million (21%)
C. Number of households that (will) have taken up DTV by End of Early Adopter stage (16% of all UK TV households) (**16** x **A**/ 100)	3.84 million
D. Number of households that (will) have taken up DTV by End of Early Majority stage (50% of all UK TV households)((**A** x **50**) / 100)	12 million
E. Total number of DTV households that make up the Early Majority (end of Early Adopter from end of Early Majority stage difference) (**D** - **C**)	8.16 million
F. DTV households that fall in the Early Majority stage on August 2000 (**B** – **C**)	1.16 million
By August 2000 DTV diffusion had reached (F/E x 100)	**14.21% of early majority (1/7)**

*Source: Euromedia, May 2000, Kagan Euromedia, Kagan World Media; and BARB *Colour Television Ownership (1971-2002) in Private Domestic Households* (www.barb.co.uk/TVFACTS.cfm?fullstory=true$newsid=12)

** Research bodies differ slightly in their estimate of take up rates of the time of summer of 2000. *Consumers' use of Digital TV*, Oftel residential survey, August 2000 gives an approximate figure of 5.25 million subscriptions; whilst IDATE research *Development of Digital TV in Europe: United Kingdom*, 2000 Report (pp. 5-6) provides the subscription figure of 4.62 million by mid-2000. An approximate figure of 5 million of total DTV subscriptions is used as a rough average in the above estimations.

Graph 3.2 DTV penetration/take-up in UK households 1998-2009
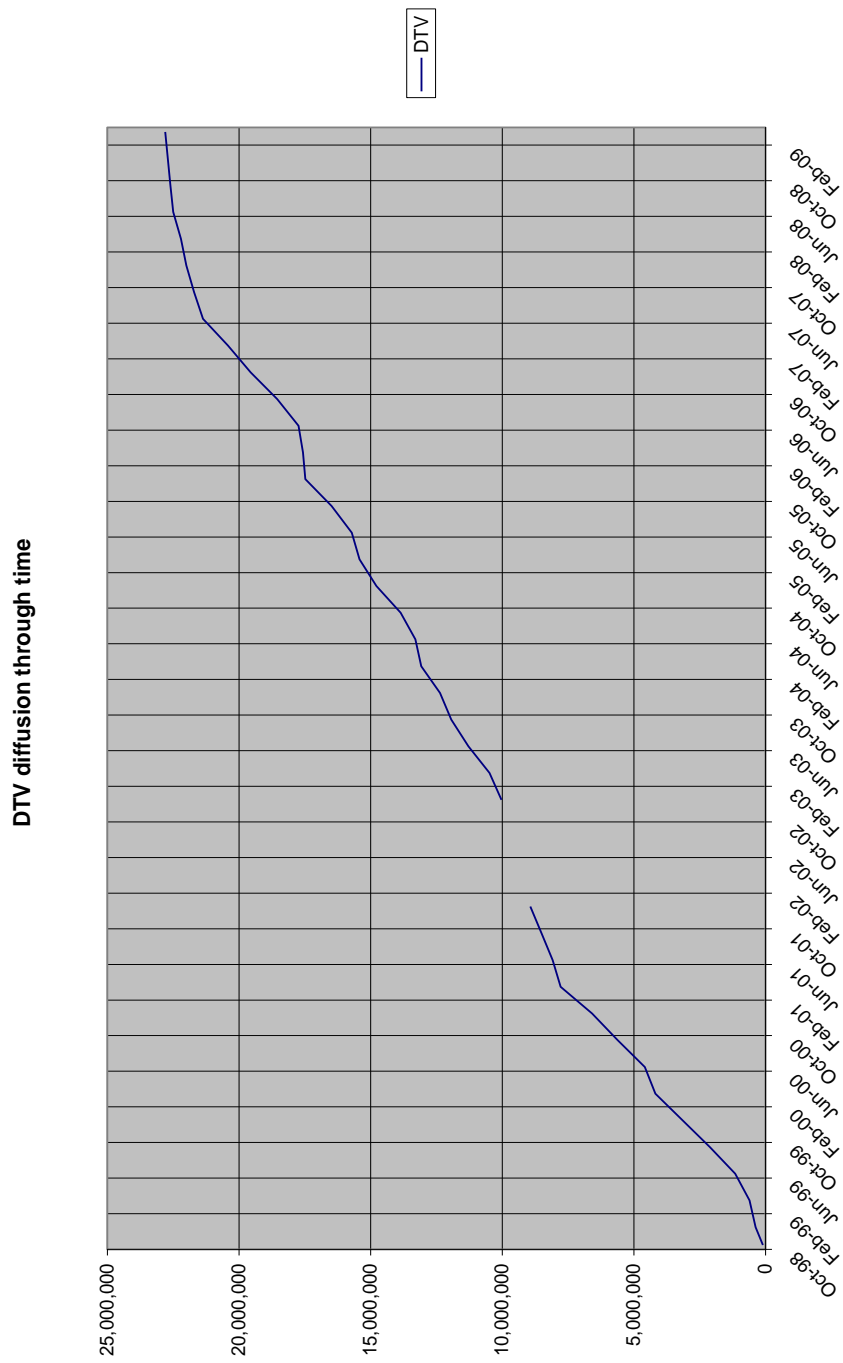
Sources: DTV Group 1998-02, Bretas, 2002;
Ofcom, The Communication Market reports 2003-2009

Graph 3.3 Multichannel take-up in UK households 2001-2011
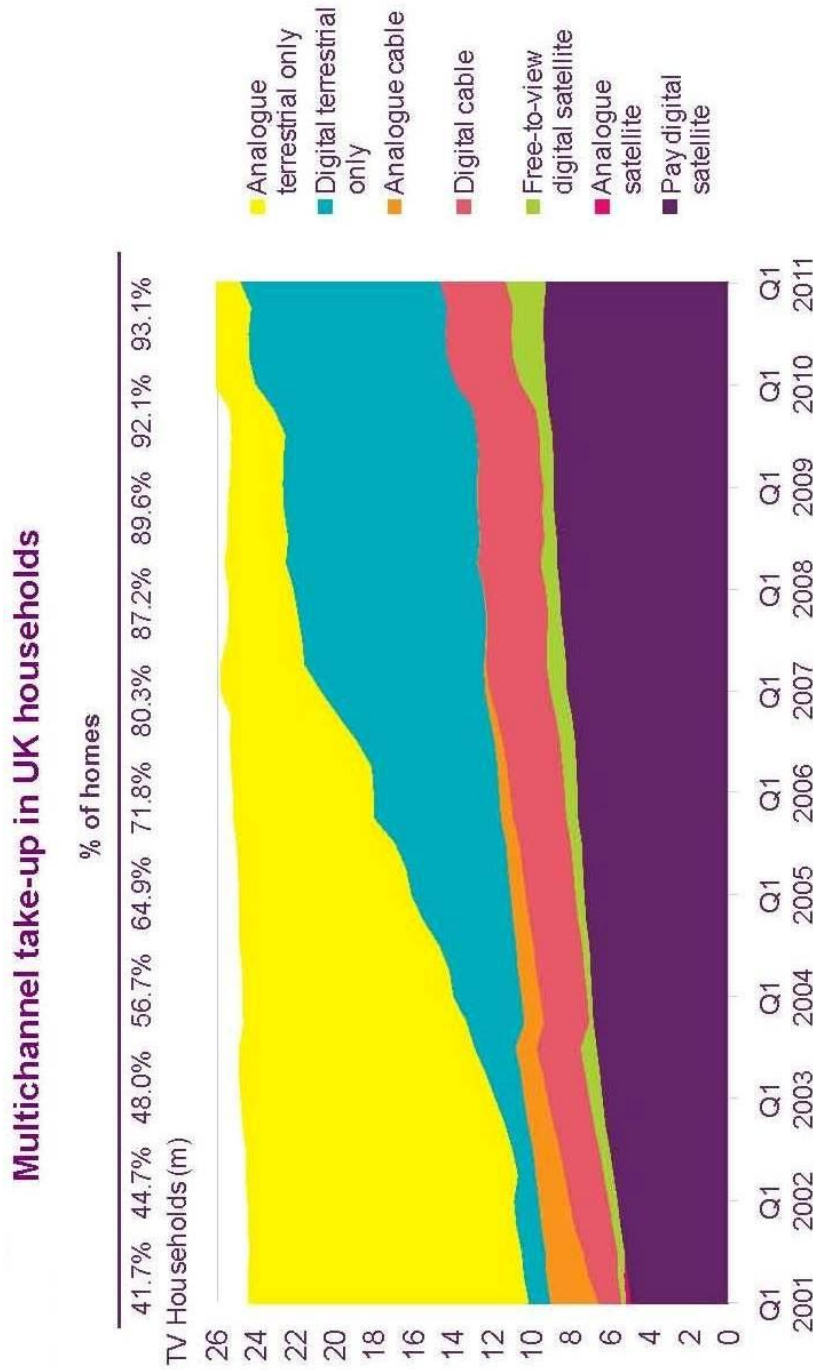
Source: Ofcom, The Communications Market 2011, p. 100

Pre-testing, Piloting and Questionnaire design issues

Context of pilot questionnaire completion and general comments

> '[P]re-testing...is an opportunity to assess the clarity of the questions; check that respondents understand…and answer the questions asked...Pre-testing can iron out many of the potential difficulties which the researcher...cannot always anticipate' (Hansen et al.1998, p. 247).

The questionnaire was piloted and discussed with my peers and professors. It was also pre-tested with 15 Sky digital subscribers/users recruited with the method of snowball sampling among friends and acquaintances as well as with the use of posters calling Sky digital users for an interview. Most questionnaires were completed in my presence and followed by a one hour discussion, while two of them in my absence. Four were completed in the interviewees' houses with the DTV equipment present; in these cases more than one household member was interviewed. Verbal feedback was given which stirred up discussions and breaks up form filling the questionnaire while non-verbal observations were gathered as respondents were filling it in. The data gained from the first 4-5 interviewees led to the improvement of certain features of the questionnaire, which was further tested by the remaining pilot interviewees. Six of them were the actual subscribers while the rest were Sky DTV users. Problem areas were identified and measures taken so as to minimise measurement error. The pilot helped identify:

1. Problematic/ambiguous questions which did not measure what they intended to.
2. Whether the options provided, the instructions given and the layout of each question were clear enough so that the respondent answers correctly.
3. Whether all respondents could classify themselves in one of the options provided by each question.
4. Whether questions were understood and interpreted in a similar way by respondents.
5. Whether all words and expressions used were clearly understood.
6. Whether the questions' order helped the respondent to fill in the questionnaire.

The above were taken into account in the design of the final questionnaire.

Questionnaire design

Issues such as: relevance of questions, questions order and sequence, questions wording, questionnaire size, type of questions, topic areas, transitional phrases and statements and other recommendations provided by Dillman's total design method (TDM) (1991, pp.

233-238) were taken into consideration to form a questionnaire that would ensure both quality and quantity of responses. The questionnaire, which follows, was printed in light yellow colour - which according to TDM enhances response rate - and staple binding like a small A4 8 double-sided page booklet.

The questionnaire

The following topic areas including corresponding questions can be identified in the final version of the questionnaire that follows.

1. Background information about DTV equipment ownership (Q1-Q6)

2. *Before* subscription (Q7-Q14)

    - Which is a more popular source for the diffusion of the idea that accompanies the new medium: market factors (advertising etc.) or 'word of mouth'?
    - What are the domestic processes/decision making procedures that are involved in people taking up a new technology?
    - Does the decision-making about adopting the new medium introduce 'turbulences' within the household (cross gender/generational)?
    - Why do they take up a new technology?
    - How does the new technology compare with the old one?

3. Consumption *Process*. Issues of *Change* (Q15-Q17). Focusing at the two ends of this process: *(i). At the time of subscription, and (ii). Now (at the time of survey)*
    - Do people's media habits, behaviour, taste, preferences etc. change as they get accustomed to the new medium?
    - How does the 'newcomer' medium get incorporated into people's lives?
    - What is subscribers' evaluation of the new medium now, based on their consumption experience?

4. Patterns of consumption (Q18-Q21).

    - The ritual and context of TV viewing.
    (social context of viewing, practices that accompany TV viewing etc.)

5. Viewing/use of DTV (Q22-Q28)

    - Time use and frequency of TV viewing, programme and content preferences, levels of satisfaction, use of interactive services)

6. Attitudes to technology (Q29-Q32)

    - What are subscribers' views about the Internet?
    - What are users' views on interactivity?
    - Which medium is more suitable for the use of interactive services?

7. Household information about demographics and DTV use variables

    - What is the household structure? Who is the heavy viewer? Who is the heavy interactive services user?

8. Lifestyle (Q33, Q37-38)

    - To what extent are digital TV subscribers' lives media saturated?
    - Are they IT advanced/rich households?

9. DTV evaluation (Q39-Q40).

10. Demographics

PILOT SURVEY

The adoption of Digital Television by the first generation of the digital audience in the UK:
A survey of Sky digital Subscribers

THANK YOU FOR AGREEING TO FILL IN THIS QUESTIONNAIRE

This questionnaire is part of a study based at the London School of Economics and Political Science. It looks into digital television audiences and the way they experience and appropriate this new technology.

This is not part of an official survey and your responses will not be analysed or used in any manner.

Your responses are needed so that I get an evaluation of the questionnaire; see whether it works, whether you have difficulties in answering or understanding the questions etc. before I actually proceed in my official survey.

Your contribution is thus very valuable since you will help for the improvement of this questionnaire.

Please, if you wish to comment on any questions feel free to use the space in the margins.

Will you please fill in your name and a contact number or e-mail address in the space below:

Name_____

Contact no/ email_____

If you have any queries please contact me at P.Theodoropoulou@lse.ac.uk

Thank you again for your help

Vivi Theodoropoulou
PhD candidate
The London School of Economics

Survey Covering Letter

The London School of Economics and Political Science

Department of Social Psychology
St. Clements Building
Houghton Street
London WC2A 2AE
Tel:
Fax:
Email:

Name
Address
Address

Dear Mr. _____

Your household is one of two thousand households across Britain that being asked to give their opinion on digital television.

The aim of this research is to investigate why you decided to take up digital television and how you use it. This research is not commercial but part of an academic study dedicated to understanding the role of digital television in our lives. Your details have been selected by a random process including all Sky digital subscribers. In order that this research truly represents what digital TV subscribers think, it is important that you complete the questionnaire attached to this letter.

I am conducting this research as part of an academic project at the London School of Economics and Political Science and on behalf of BSkyB. The information you supply will remain confidential and will only be used for research purposes. The data I gain will be treated anonymously, and provide the basis for my PhD research project about Digital Television and everyday life. It will also be presented to Sky digital to allow future improvement to your digital television service. At no time during or after this study will any attempts be made to send you any products or services.

The questionnaire has an identification number for mailing purposes only. Your name will not be attached to the questionnaire or any results. If you are interested in receiving a summary of the results please write 'copy of results requested' on the back of the return envelope, and I would be pleased to provide you with a copy. Please do not put this information on the questionnaire itself.

To return the questionnaire, please use the freepost envelope provided.

I would be very happy to answer any questions you may have about this study. You can call me at 020 83651785, write to the above address, or e-mail me at P.Theodoropoulou@lse.ac.uk.

Thank you very much for your assistance.

Sincerely,

Vivi Theodoropoulou
MPhil/PhD researcher

Survey Questionnaire[161]

The London School of Economics and Political Science

Room S201
St. Clements Building
Houghton Street
London WC2A 2AE

Respondent's
number

The audience for Digital Television:
A survey of Sky digital Subscribers

This questionnaire is part of a study at the London School of Economics and Political Science. It asks digital television audiences about how they experience and use this new equipment.

It is important that the views of digital TV subscribers are heard in this research. It would be of great help if you could fill in this questionnaire.

The questionnaire is completely anonymous and confidential, and it will not be possible to identify you from your responses. It is easy to fill in, and should not take very long to complete.

Please keep in mind when answering the questions that by Digital TV I mean ALL the channels you watch on your Digital TV set, both the terrestrial (BBC1, BBC2, ITV, CH4, CH5) and the Sky channels.

Please answer all the questions and return the questionnaire using the FREEPOST pre-paid envelope, preferably within the next week.

THANK YOU VERY MUCH FOR YOUR HELP

If you have any queries concerning this research or wish to find out more about this study, please contact Vivi Theodoropoulou at 020 7955 6737 or at P.Theodoropoulou@lse.ac.uk

---

[161] The original questionnaire was printed as a light yellow A4 booklet. In the following copy minor stylistic changes are made in font size and occasionally in layout so that it corresponds with LSE PhD Thesis formatting requirements.

THIS SECTION OF THE QUESTIONNAIRE ASKS FOR SOME BASIC INFORMATION ABOUT YOUR DIGITAL TV EQUIPMENT

Q1   Where do you keep your Digital TV set(s)?   *(You may tick more than one)*

Lounge/living room ☐

Dining room ☐

Kitchen ☐

My bedroom ☐

Other adult's bedroom ☐

Child's/children's bedroom ☐

Other ☐

Q2   Which kind of digital equipment do you have?   *(Please tick one box)*

Digibox ☐   **please go to Q3**

Integrated digital widescreen TV ☐   **please go to Q4**

Both ☐   **please go to Q3**

Don't know ☐   **please go to Q4**

Q3   When you subscribed to Sky digital were you given the digibox for free?   *(Please tick one box)*

Yes ☐

No ☐

Don't know/don't remember ☐

Q4   Before subscribing to Sky digital, did you have a subscription with BSkyB analogue satellite services?   *(Please tick one box)*

Yes ☐   **please go to Q6**

No ☐   **please go to Q5**

Q5   Which of the following did you have when you subscribed to Sky digital?   *(Please tick one box)*

Terrestrial TV ☐

Cable TV ☐

Satellite TV ☐

Q6   Is Sky digital your first Digital TV subscription?   *(Please tick one box)*

Yes ☐

No ☐   If no, please state which Digital TV company you subscribed to before Sky digital:

Q7   How did you first hear about Digital Television?

(You may tick more than one box)

From an advertisement on TV ☐		My child(ren) told me ☐
Through other forms of promotion/advertising ☐		Another member of my household told me ☐
From an article in a newspaper/magazine ☐		A friend/neighbour/colleague/relative told me ☐
I saw it in a shop ☐		Don't know/don't remember ☐
My partner told me ☐		Other ☐

Q8   And where did you first watch Digital TV?

(Please tick one box only)

In a neighbour's house ☐
In a friend's/relative's house ☐
In a pub ☐
In a hotel ☐
At my home ☐
Other ☐

Q9   Who in your household wanted to subscribe to Digital TV?

(Please tick all that apply)

I did ☐
My partner/spouse ☐
Other male adult(s) ☐
Other female adult(s) ☐
Male child(ren) ☐
Female child(ren) ☐
Other ☐
Please specify_____

Q10   Were there any disagreements between any members of your household about subscribing to Digital TV?

(Please tick all that apply)   Yes, between me and my partner/spouse ☐

Yes, between me and my child(ren) ☐

Yes, between my partner/spouse and child(ren) ☐

Yes, between my children ☐

Yes, between me and other member(s) of the household ☐

Yes, between other members of the household ☐

No ☐

297

Q11   Which were the THREE most important reasons why you and/or the members of your household decided to subscribe to a Digital TV company?

(Please RANK the three reasons by writing NUMBER 1 in the box for the most important, NUMBER 2 for the second most important and NUMBER 3 for the third most important reason)

Better picture and sound quality	☐
Bigger choice of channels	☐
Access to interactive services like TV-shopping, banking, e-mails, etc	☐
More sports channels/programmes/events	☐
More films of my/our taste	☐
Everyone will move to Digital TV eventually, so I/we thought I/we should do it too	☐
Digital TV is the future of TV and I/we wanted to be one of the first to take it up	☐
I/we needed to buy a new TV set, so I/we decided to buy Digital TV	☐
Don't know/don't remember	☐
Other	☐

Please specify_____

Q12   And which were the THREE most important reasons why you and/or the members of your household decided to subscribe to Sky digital rather than to another Digital TV company?

(Please RANK the three reasons by writing NUMBER 1 in the box for the most important, NUMBER 2 for the second most important and NUMBER 3 for the third most important reason)

Bigger choice of channels	☐
Access to Open TV shopping services	☐
Access to Open TV banking services	☐
Access to Open e-mail services	☐
Access to other interactive services	☐
Sky digital was offering the most interesting sport events	☐
Sky digital offered more competitive prices	☐
Sky digital was offering the Digibox for free	☐
At the time I/we subscribed, another promotional offer was available by Sky digital	☐
I/we had subscribed to BSkyB's analogue satellite service, so switching to digital and staying with the same company was convenient	☐
At the time I/we subscribed to Sky digital, no other Digital TV company was operating	☐
At the time I/we subscribed, I/we did not know of any other Digital TV companies	☐
I/we had not been satisfied with the services of our previous Digital TV company	☐
Other Please specify	☐

_____

Q13   Were there any disagreements between any members of your household about which Sky digital channel package to get? *(Please tick all that apply)*

Yes, between me and my partner/spouse	☐
Yes, between me and my child(ren)	☐
Yes, between my partner/spouse and child(ren)	☐
Yes, between my children	☐
Yes, between me and other member(s) of the household	☐
Yes, between other members of the household	☐
No	☐

Q14   How does Digital TV compare with your previous television service? Please tell me how much you agree or disagree with the statements below.

(Please tick one box in each row)	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Compared to my previous TV service, Digital TV gives me a greater choice of programmes to watch	☐	☐	☐	☐	☐
Compared to my previous TV service, Digital TV gives me greater control over the things I can do with my TV	☐	☐	☐	☐	☐
Compared to my previous TV service, Digital TV provides better picture and sound quality	☐	☐	☐	☐	☐
Since I subscribed to Digital TV, I watch less of the terrestrial channels (BBC, ITV, CH4, CH5)	☐	☐	☐	☐	☐
Since I subscribed, I watch more TV than I used to	☐	☐	☐	☐	☐
Since I subscribed, I watch less TV than I used to	☐	☐	☐	☐	☐

> **I AM INTERESTED IN HOW YOU GOT ACCUSTOMED TO YOUR DIGITAL TV. LOOKING BACK TO THE TIME <u>WHEN</u> YOU SUBSCRIBED AND <u>THE FIRST PERIOD YOU HAD SKY DIGITAL</u> PLEASE ANSWER THE FOLLOWING QUESTIONS**

Q15   Has your attitude towards your Digital TV changed SINCE you first subscribed? Please tick the statements that best describe your case. *(please tick all that apply)*

I now feel more comfortable using my Digital TV than I used to when I first subscribed	☐
I now spend more time watching programmes on my Digital TV	☐
I now spend less time watching programmes on my Digital TV	☐
I now spend more time using the interactive services on my Digital TV	☐
I now spend less time using the interactive services on my Digital TV	☐
I don't think Digital TV is as interesting for me as it used to be when I first subscribed	☐
None of the above	☐

Q16 And have your TV viewing habits and preferences changed since you first subscribed? Please tick the statements that best describe your case. *(Tick all that apply)*

When I first subscribed there weren't any programmes that I would watch regularly ☐

I now know what channel and time the programmes I like are scheduled on, while when I first subscribed I didn't ☐

I now watch programmes that I didn't use to watch when I first subscribed, even though they were on TV at that time ☐

I now flick through the channels less than I used to when I first subscribed ☐

I now flick through the channels more than I used to when I first subscribed ☐

None of the above ☐

Q17 Thinking back to what you hoped for when you first subscribed to Digital TV, would you say that it has lived up to your expectations? Please tell me how much you agree or disagree with the statements below.

(Please tick one box in each row)	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Digital TV has lived up to my expectations	☐	☐	☐	☐	☐
Digital TV offered me more than I thought it would	☐	☐	☐	☐	☐
Digital TV offered me less than I though it would	☐	☐	☐	☐	☐
Digital TV didn't prove to be as exciting as I thought it would	☐	☐	☐	☐	☐
Digital TV's potential is exaggerated	☐	☐	☐	☐	☐
Digital TV offers good value for money	☐	☐	☐	☐	☐

NOW SOME QUESTIONS ABOUT THE WAY YOU WATCH TV, WHATEVER THE CHANNEL, USING YOUR DIGITAL TV SET

Q18 How often do you watch Digital TV alone, and how often with other people?

(Please tick one box in the rows that apply)	Very often	Often	Sometimes	Hardly ever	Never	Does not apply
Alone	☐	☐	☐	☐	☐	☐
With partner/spouse	☐	☐	☐	☐	☐	☐
With my child(ren)	☐	☐	☐	☐	☐	☐
With partner/spouse and child(ren)	☐	☐	☐	☐	☐	☐
With other members of the household	☐	☐	☐	☐	☐	☐
With friends from outside the household	☐	☐	☐	☐	☐	☐

Q19 How often do you do the following while you are watching television?

(Please tick one box in each row)	Very often	Often	Sometimes	Hardly ever	Never
Chat with others about everyday issues	☐	☐	☐	☐	☐
Chat with others about the programme you're watching	☐	☐	☐	☐	☐
Eat	☐	☐	☐	☐	☐
Talk on the phone	☐	☐	☐	☐	☐
Do household chores	☐	☐	☐	☐	☐

Q20 **Some people find it difficult to agree on which programme to watch. In your case, does watching Digital TV lead to any disagreements between any members of your household?**

(Please tick all that apply)

Yes, between me and my partner/spouse ☐

Yes, between me and my child(ren) ☐

Yes, between my partner/spouse and child(ren) ☐

Yes, between my children ☐

Yes, between me and other member(s) of the household ☐

Yes, between other members of the household ☐

No ☐

Q21 **On a day that you watch TV, how do you choose what to watch on your Digital TV?**

(You may tick more than one box)

I read the TV guide (Radio Times, TV Choice etc.) ☐

I read Sky magazine ☐

I use the on-screen Sky TV Guide ☐

I flick through channels and find a programme I want to watch ☐

I use teletext ☐

I read the TV programme in the newspaper ☐

I check BSkyB's website ☐

I know what time the programmes I like are scheduled on ☐

I watch what the other people in the room are watching ☐

Other ☐

AND NOW SOME QUESTIONS ABOUT YOUR TV VIEWING HABITS AND PREFERENCES

Q22 **In an average WEEK, how many DAYS do you watch TV at home?**
(Please tick one)

6 - 7 days a week ☐

4 - 5 days a week ☐

2 - 3 days a week ☐

1 day a week ☐

Less than once a week ☐

Never ☐

Don't know/don't remember ☐

Q23 **And on an average DAY, how many HOURS do you watch TV?** *(tick one)*

7 hours or more ☐

5 to 6 hours ☐

3 to 4 hours ☐

1 to 2 hours ☐

Less than an hour ☐

Don't know/don't remember ☐

Q24   Which TYPE(S) of CHANNELS do you prefer to watch?
(Please tick all that apply)

Terrestrial channels (BBC, ITV, CH4, CH5)	☐
News channels	☐
Sports channels	☐
Movie channels	☐
Entertainment channels	☐
Children's channels	☐
Music channels	☐
Shopping channels	☐
Knowledge/documentary channels	☐
Foreign language channels	☐
Other	☐

Q25   Which TYPE(S) of PROGRAMMES do you prefer to watch?
(Please tick all that apply)

Sports	☐
Drama	☐
Comedy	☐
Music	☐
Feature films	☐
Talk/chat shows	☐
Soap operas	☐
Cartoons/children's programmes	☐
News/current affairs	☐
Quizzes/game shows	☐
History/art/culture	☐
Nature/science	☐
Crime/horror	☐
Lifestyle (cooking, gardening, travelling, DIY)	☐
Science fiction	☐
Adult entertainment	☐
Other	☐

Q26   How satisfied are you with the channels and programmes that are currently available for you to watch on Digital TV? *(please tick one)*

Very satisfied	☐
Quite satisfied	☐
Not very satisfied	☐
Not at all satisfied	☐

Q27   Some people use Digital TV for purposes other than TV viewing. How often do you use Digital TV for the following?
(please tick one box in each row)

	6-7 days a week	4-5 days a week	2-3 days a week	One day a week	2-3 times a month	Once a month or less	Never
For TV shopping (through Open)	☐	☐	☐	☐	☐	☐	☐
For TV banking	☐	☐	☐	☐	☐	☐	☐
For sending/receiving e-mails	☐	☐	☐	☐	☐	☐	☐
For playing interactive games	☐	☐	☐	☐	☐	☐	☐
For using interactive Sky Sports Extra	☐	☐	☐	☐	☐	☐	☐
For listening to the radio	☐	☐	☐	☐	☐	☐	☐
For calling up a pay per view programme	☐	☐	☐	☐	☐	☐	☐

Q28   How comfortable do you feel about using Digital TV for the following?

(Please tick only one box in each row)	Very comfortable	Quite comfortable	Not very comfortable	Not at all comfortable	Does not apply
TV shopping (through Open)	☐	☐	☐	☐	☐
TV banking	☐	☐	☐	☐	☐
Sending/receiving e-mails	☐	☐	☐	☐	☐
Playing interactive games	☐	☐	☐	☐	☐
Using interactive Sky Sports Extra	☐	☐	☐	☐	☐
Listening to the radio	☐	☐	☐	☐	☐
Calling up a pay per view programme	☐	☐	☐	☐	☐

NOW SOME QUESTIONS ABOUT DIGITAL TV AND COMPUTERS

Q29   In general, which do you think is BETTER SUITED for doing the following activities, Digital TV or a PC?

(Please tick one box in each row)	Digital TV (Open) better	PC/Internet better	No difference	Don't know
For home-shopping	☐	☐	☐	☐
For home-banking	☐	☐	☐	☐
For sending/receiving e-mails	☐	☐	☐	☐
For playing interactive games	☐	☐	☐	☐

Q30   Which do you think is EASIER to use for the following activities, Digital TV or a PC?

(Please tick one box in each row)	Digital TV (Open) easier	PC/Internet easier	No difference	Don't know
For home-shopping	☐	☐	☐	☐
For home-banking	☐	☐	☐	☐
For sending/receiving e-mails	☐	☐	☐	☐
For playing interactive games	☐	☐	☐	☐

Q31   And which do you think is MORE SECURE to use for the following activities, Digital TV or a PC?

(Please tick one box in each row)	Digital TV (Open) more secure	PC/Internet more secure	No difference	Don't know
For home-shopping	☐	☐	☐	☐
For home-banking	☐	☐	☐	☐
For sending/receiving e-mails	☐	☐	☐	☐
For playing interactive games	☐	☐	☐	☐

Q32   Which of the following have you or any members of your household ever BOUGHT through Digital TV and which through a PC?

(You may tick more than one box in the rows that apply)	through Digital TV (using Open)	through Digital TV (using Sky shopping channels)	through PC/Internet
Books/magazines/subscriptions	☐	☐	☐
CDs and music	☐	☐	☐
Videos	☐	☐	☐
Holidays	☐	☐	☐
Theatre/concert or event tickets	☐	☐	☐
Electrical products	☐	☐	☐
Clothes	☐	☐	☐
Furniture	☐	☐	☐
Financial services	☐	☐	☐
Food and groceries	☐	☐	☐
Other	☐	☐	☐
I/we have never bought any products	☐	☐	☐

Q33   How many of the following do you have in YOUR HOUSE?

(Please tick one box in each row)	None	One	Two	Three	Four or more
TV set	☐	☐	☐	☐	☐
VCR	☐	☐	☐	☐	☐
Digibox	☐	☐	☐	☐	☐
Sky Remote Control	☐	☐	☐	☐	☐
Radio (including in Hi-Fi's or stereos and the one in your Digital TV)	☐	☐	☐	☐	☐
Stereo/CD player/ record player	☐	☐	☐	☐	☐
Walkman/Discman	☐	☐	☐	☐	☐
PC	☐	☐	☐	☐	☐
Internet link/Modem	☐	☐	☐	☐	☐
DVD	☐	☐	☐	☐	☐
Fax machine	☐	☐	☐	☐	☐
Camcorder	☐	☐	☐	☐	☐
Mobile phone without Internet access	☐	☐	☐	☐	☐
Mobile phone with Internet access	☐	☐	☐	☐	☐
Telephone receiver (not mobile)	☐	☐	☐	☐	☐
TV-linked games machine (Sega/Nintendo)	☐	☐	☐	☐	☐

Now some questions about YOUR HOUSEHOLD and the people who watch Digital TV there

Q34 **In the table below, please write in who you live with. Please also fill in the boxes your and your household members' age and sex.**

	Please write in this column your RELATION to your household members (i.e. partner, son, daughter, flatmate etc.). The first row is for yourself	Please write in the boxes your and your household members' AGE in years	Please write in the boxes your and your household members' SEX. Please write M for Male and F for Female
Person 1	Self	☐	☐
Person 2		☐	☐
Person 3		☐	☐
Person 4		☐	☐
Person 5		☐	☐
Person 6		☐	☐
Person 7		☐	☐

Q35 **Who in your household spends the most time watching Digital TV?**

Please write in the space provided your relation to the person who spends most time watching Digital TV (i.e. myself, partner, son, flatmate etc.)	Please write in the box his/her age
_____ _____	☐

Q36 **And who in your household spends the most time using Open interactive services?**

Please write in the space provided your relation to the person who spends most time using Open interactive services (i.e. myself, partner, son, flatmate etc.)	Please write in the box his/her age	Please specify which Open service is mostly used (e.g. shopping, banking, e-mails, games, etc.)
_____ _____	☐	_____ _____

Q37   How often, if at all, do you do any of the following outdoor activities in your leisure time?

(Please tick one box in each row)	6-7 days a week	4-5 days a week	2-3 days a week	One day a week	2-3 times a month	Once a month or less	Rarely/ never
Go to the cinema	☐	☐	☐	☐	☐	☐	☐
Go to a concert/theatre/museum	☐	☐	☐	☐	☐	☐	☐
Engage in a sports activity	☐	☐	☐	☐	☐	☐	☐
Attend a sports event	☐	☐	☐	☐	☐	☐	☐
Go to the pub/bar/club	☐	☐	☐	☐	☐	☐	☐
Go shopping	☐	☐	☐	☐	☐	☐	☐
Go for a walk	☐	☐	☐	☐	☐	☐	☐
Go out with friends	☐	☐	☐	☐	☐	☐	☐

Q38   And how often, if at all, do you do any of the following indoor activities in your leisure time?

(Please tick one box in each row)	6-7 days a week	4-5 days a week	2-3 days a week	One day a week	2-3 times a month	Once a month or less	Rarely/ never
Meet friends at home	☐	☐	☐	☐	☐	☐	☐
Listen to the radio	☐	☐	☐	☐	☐	☐	☐
Play records/CDs/tapes	☐	☐	☐	☐	☐	☐	☐
Watch a video tape	☐	☐	☐	☐	☐	☐	☐
Use a PC	☐	☐	☐	☐	☐	☐	☐
Use the Internet	☐	☐	☐	☐	☐	☐	☐
Read a newspaper	☐	☐	☐	☐	☐	☐	☐
Talk on the phone	☐	☐	☐	☐	☐	☐	☐

Q39 **Here are some things other people have said about Digital TV. How much do you agree or disagree with each one?**

(Please tick one box in each row)	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Does not apply
Digital TV saves me the time and expense of going to the cinema or renting videos.	☐	☐	☐	☐	☐	☐
Digital TV saves me the time of going out shopping.	☐	☐	☐	☐	☐	☐
Digital TV saves me the time and expense of going to a pub to watch the sporting events.	☐	☐	☐	☐	☐	☐
It is often difficult for me to find the time to watch all the Digital TV programmes I am interested in.	☐	☐	☐	☐	☐	☐
It is difficult for me to afford to pay for all the channels that I am interested in.	☐	☐	☐	☐	☐	☐
Digital TV is an enjoyable way for me and other people in my household to spend more time together.	☐	☐	☐	☐	☐	☐
Digital TV is an enjoyable way for me and my friends to spend more time together.	☐	☐	☐	☐	☐	☐
Digital TV provides access to a small range of interactive services such as TV shopping, banking, e-mails etc.	☐	☐	☐	☐	☐	☐

Q40 **If someone you know asks your opinion, would you recommend him/her to subscribe to digital television?**

(you may tick more than one)

Yes, I would recommend Sky digital ☐

Yes, I would recommend another digital TV company ☐

No ☐

Don't know/can't say ☐

Finally some questions about yourself and your household. It is important for this research to make sure that a range of people living in different circumstances have been contacted. It would be very helpful if you could answer the following questions.

Please tick the box in each section that describes you.

At present are you: Married ☐ Divorced/separated ☐ Single ☐
and living with husband/wife
Not married but living with partner ☐ Widowed ☐

Please indicate the highest level of education you have completed or are in the process of completing? *(tick one)*

Secondary school/CSEs ☐ Undergraduate degree ☐

O levels/GCSEs ☐ Postgraduate degree ☐

A levels ☐ Professional qualifications ☐

Other ☐

Please specify:_____

Which of the following best describes your current situation? *(you may tick more than one)*

In full time work ☐	Self-employed ☐	Full time student ☐
In part time work ☐	Unemployed ☐	Part time student ☐
Full time housekeeping ☐	Voluntary/unpaid work ☐	Retired/pensioned ☐
Other ☐		

Please specify:_____

What is your PERSONAL and your HOUSEHOLD annual income before tax? (if you live in a flatshare please state only your personal income)

	Personal Income	Household income (if different)
£8,000 or less	☐	☐
£8,001 - £15,000	☐	☐
£15,001 - £20,000	☐	☐
£20,001 - £25,000	☐	☐
£25,001 - £30,000	☐	☐
£35,001 - £40,000	☐	☐
£41,001 or more	☐	☐

If you are employed, please describe your main job:_____

Which of the following best describes your main job function? *(Please tick one box only)*

Manager/Administrator ☐
(e.g. company director, executive officer, manager, etc.)

Protective services ☐
(e.g. police, army, etc.)

Professional/Technical ☐
(e.g. doctor, accountant, school teacher, computer programmer, etc.)

Skilled manual work ☐
(e.g. plumber, electrician, train driver, cook, etc.)

Secretarial/Clerical ☐
(e.g. clerk, secretary, telephone operator, etc.)

Semiskilled/Unskilled manual work ☐
(e.g. postman, waitress, cleaner, etc.)

Sales ☐
(e.g. shop assistant, commercial traveller, etc.)

Farmer ☐

To which of these groups do you consider you belong? *(tick one)*

White ☐	Indian ☐	Other ethnic group ☐
Black – Caribbean ☐	Pakistani ☐	
Black – African ☐	Bangladeshi ☐	Would rather not say ☐
Black – Other ☐	Chinese ☐	

What is the main language spoken in your household?

English ☐
Other ☐
Please specify:_____

Finally, this study aims to examine how different households experience Digital TV. I may need to contact some households, to see how their media use changes from time to time. Would you be willing for your household to be contacted again within the next year?

Yes ☐

No ☐

If there is anything else you would like to add about your experience with Digital TV please use the space below.

YOUR CONTRIBUTION TO THIS RESEARCH IS VERY GREATLY APPRECIATED
THANK YOU VERY MUCH FOR YOUR HELP

PLEASE RETURN THE QUESTIONNAIRE USING THE FREEPOST ENVELOPE PROVIDED

YOU DO NOT NEED TO PUT A STAMP ON IT

Survey Reminder Covering Letter

The London School of Economics and Political Science

Vivi Theodoropoulou
Room S201
St. Clements
Building
Houghton Street
London WC2A 2AE
Tel: 020 7955 6737

Date

NAME
Address
Address
Address

Dear Mr._____

I recently wrote to you to invite you to participate in a study of two thousand digital television households in Britain that I am conducting as part of my PhD.

I am undertaking this research as part of an academic project at the London School of Economics and Political Science and on behalf of BSkyB. The aim of the research is to investigate why you decided to take up digital television and how you use it.

If you would like to participate in this study but have not found the time so far, please fill in the enclosed questionnaire and return it using the freepost envelope provided. If you do not wish to participate in this study, please accept my apologies about contacting you again. If you have already returned your questionnaire, I would like to thank you very much for your help.

I want to reassure you again that the information you supply will be treated anonymously and confidentially. At no time during or after this study will any attempts be made to sell you any products or services.

If you are interested in receiving a summary of the results please write 'copy of results requested' on the back of the return envelope, and I will provide you with a copy. I am very happy to answer any questions you may have about this study. You can call me at 020 83651785, or e-mail me at P.Theodoropoulou@lse.ac.uk.

Thank you very much for your assistance.

Sincerely,

Vivi Theodoropoulou
MPhil/PhD researcher

Covering Letter for Interviews

The London School of Economics and Political Science

<div align="right">

Department of Sociology
Media Programme
St. Clements Building
Houghton Street
London WC2A 2AE
Tel: 0208 7955 6737
Email: P.Theodoropoulou@lse.ac.uk

Date

</div>

Name
Address
Address
Address

Dear Mr. _____

My name is Vivi Theodoropoulou and I am a PhD researcher at the Department of Sociology at the London School of Economics and Political Science. I contacted you last January concerning your opinion and use of digital television and would like to thank you for taking part in my survey. Your help was very beneficial and has greatly helped me to advance my research on digital television.

I have now collected the questionnaires from over 700 subscribers throughout the UK and would like to conduct a number of informal face-to-face interviews with a small number of subscribers drawn from all respondents. These interviews will be used to inform my Doctorate study in more depth.

I was therefore wondering whether I could interview you in the next few weeks about your use of digital television and whether/how it has changed since last year. Every interview is **strictly confidential and anonymous** and your personal details will NOT be disclosed to any institution or individual for any purposes. The interview will last no more than one hour; it can be interrupted at any time and can be arranged at a time and place of your convenience. Your help is greatly appreciated!

I will try to contact you by phone next week (21-26/01/02) to see if you would like to participate and if so arrange an interview at a time of your convenience.

Thank you very much for your help, and I am happy to answer any further questions.

Yours sincerely,

Vivi Theodoropoulou
PhD researcher

Are you a Sky Digital Subscriber?

I am currently conducting a pilot study of digital television users. If you have Sky Digital and would be willing to have a chat about your experiences, how you use it, what you like and what you dislike about it, please email me at:

P.Theodoropoulou@lse.ac.uk

or drop in S201 and ask for Vivi.

Interview Index

TABLE 3.2 Interviewees' Profile and Variety of Uses (Pseudonyms are used)

Name	Place of interview	Age	Sex	Occupation	Household structure	PC/ Internet	Interactive TV use	TV-status new or old to Sky
Lisa Robinson *Old fashioned*	Her house Maidenbower West Sussex	36	F	Customer adviser	Divorced, living with daughter 7	No	No. Has tried SNA, email but did not like it.	Old
Jill Pierce *Experimentalist/ TV entertainment fan*	LSE. Lives in South-East London	52	F	Cleaner	Single, living with son 30	No. Son has got PC	Yes, enhanced. SNA, BB vote, documentaries	Old
Keith Preston *Traditional*	His office, Romford. Lives in Chelmsford.	30	M	Loss adjuster	Married, living with wife 32 and sons 3 and 2	Yes	No. Has tried them but does not use	Old
John Hills *Traditional*	His house, Upminster, Essex	43	M	Financial Ombudsman service	Married, living with wife 41, son 13, daughter 11	Yes	No. Has tried both enhanced and Open but rejected it for internet.	Old
Leary Adamson *Traditional*	His house, Walmer, Kent	54	M	Technical advisor	Married, living with wife, 50. Adult daughters live alone.	Yes	No. Has tried games and PPV but not keen. Not big internet fan.	New. But cancelled
Paula and Mark Wright *Traditional*	Their house, Yateley, Hampshire	35	F/ (M)	Housewife	Married, living with husband 34, son 3, daughter 1	Yes	No. PPV rarely	New
Sylvia Atkinson *Traditional*	Her house. Littlington, Royston, Hertfordshire	45	F	Specialist learning support assistant	Married, living with husband 44, sons 15, 12, 9	Yes pc No internet	No use.	New
Greg Russell *Traditional*	His office, Southend. Lives in Romford, Essex	41	M	Personnel Manager	Married, living with wife 41, son 13, daughter 13	Yes	No, not happy with DTV. Internet fan	Old
Nick Boder *Traditional*	His house, Harrow	26	M	Student	Single, living in flat-share. Later moved; now has Ondigital	Yes	No	New

Jane Neals *Transitional*	Her house, East Finchley, London	34	F	Housewife	Married, living with husband 35, daughter 9 and sons 7, 5, 4	Yes	Yes. Enhanced only. BB, BBC text, Walking with dinosaurs. Husband: SNA	New
Phil Jackman *Transitional*	His house, Leagrave, Luton	37	M	Police officer	Married, living with wife 41 and sons 13, 11	Yes	Yes, enhanced. SSA	Old
Tahim Lallah *Transitional*	LSE. Lives in North London	23	M	Student	Single, living alone	Yes	Yes, enhanced. SNA	Old
Mark Wooding *Transitional*	LSE. Lives in South London	28	M	Research consultant	Single living with sister and parents	Yes	Yes, enhanced. SSA	Old
Tom Allen *Converging*	LSE. Lives in East London	43	M	Gas supplier company officer	Single, living alone	Yes	Yes. SSA. Shop/ emails (but these days rarely)	Old
Helena Pandelidis *Converging*	Her house, Hinchley-wood, Esher, Surrey	46	F	Property manager	Married, living with husband 53 and son 11	Yes	Yes. Both enhanced and Open.	New

INTERVIEW SHEET/GUIDE

Interviewee No:

Name:

Age:

Gender:

Occupation:

Marital status:

Ethnicity:

Heavy TV viewer
(note relation to subscriber, age and sex):
Heavy interactive user
(note relation to subscriber, age and sex):
Most used service:

Important comments in survey open-ended question:

Classification according to stratification variables

Status of subscriber	
Household structure: with/without children *(note ages and gender of all members)*	

Introduction
Explain about research
Request permission to tape

Daily life	Probing notes
So you are a _____. How would you describe a typical day of your life?	Check working status, occupation, job function
What do you do when you're back from work/college/done with the housework?	_____ _____ _____
What about weekends?	_____
Do you have any hobbies?	Check q37 about outdoor and q38 about indoor activities.
You must be a big fun of sports/art/cinema cause you said in the questionnaire that you like to play sports/go to the theatre/go to the movies quite frequently. Is that so? What sort of sports/plays/films to you like? Who do you go with?	_____ _____ _____ _____
	Check q34 about number of children, age and sex.
Ask if with children	_____
You have_____child(ren). What do(es) your child(ren) do (school, college, work)?	_____ _____
And what do(es) he/she/they usually do when he/she/they is/are back from school/college/work?	_____ _____
Do you spend any time together? Doing what?	_____
TV viewing	Check q24, q25 favorite channels/programmes.
How long do you have digital TV for now? Are you happy with it?	_____
What do you do with your DTV? What channels and programmes do you prefer to watch?	_____ _____
What about the rest of the family? Who is into what? Are there any programmes the whole family watches together?	
You seem to prefer watching programmes alone/with other members of your household. Why is that?	Check q11 about reasons why they got it.
	Check q12 about reasons why they got Sky.
Initiation to DTV (probe for examples and stories)	Check q9 about who wanted it and q10 and q13 about disagreements
Now, you said that you got a subscription because of X and Y and Z. Why is that? Did you really want X, Y, and Z?	Check q2 about equipment and q3 about digibox offer
So when you got a subscription, was it just you deciding what company and which package? Who else wanted it? Why were you interested in X package and not Y package?	_____ _____ _____
Ask if free digibox	_____
Would you have gotten it at that time if the digibox were not for free?	_____ _____
Ask if not free digibox	_____
Do you regret not getting the digibox for free? Do you wish you could have waited a bit until the offer was out or prices went down?	_____
Why was it important that you got it so early?	Check q4 and q5 about previous service.
Now that you have DTV for ____ year(s), do you still use/value X, Y, and X?	_____ _____
	Check q14 about comparison with old TV service.
What was wrong with your old TV service that made you decide to get a DTV subscription?	_____

Weren't you satisfied with it?

Ask if previous was terrestrial

How do you find it now that you have to pay for your TV?

Do you think that you get better quality of TV now?

What about the company, are you happy with their customer service etc.?

Ask if previous cable, satellite or Sky

But, what is different now that you have DTV? With you old service you still had quite a few channels on… Is the picture quality really that better?

You said you first heard about DTV from, X, Y, Z. In what sense was X, Y, and Z important in your decision to buy it?

If you think back of all those things you expected of DTV before you bought it, would you say that it has lived up to your expectations?

What do you think about the debate that DTV is the future of television? Why do you think other people take it up?

Analogue vs. digital

What do you value about DTV most? Do you have any worries about it?

How do you feel about all this variety of channels?

How many channels do you watch?

Do you think you need the rest of them?

Do you think there is a real diversity in content? Many people say there are too many repeats. What do you think?

Do you find time to watch all the programmes you are interested in? Why is it important that you receive so many channels?

What is different now that you have DTV? How would you compare it to your previous service? Is it better than your old TV? In what sense? Do you watch more TV now?

Does TV play the same part in your life as it did before you had DTV? What did you use to do before DTV and before you had X, Y, Z?

Do you think DTV has made your life different in any way? Has it made it better, worse, easier etc.?

In general, how important is television in your life? Would you miss it if it broke down?

Familiarisation (probe for examples and stories)

Have you any stories to tell about your early experiences with DTV? Was it easy to start using it?

Did it take a long time for you to find out what is available and how to use it?

_____
_____
_____
Check q7 and q8 about where first heard/watched DTV.
_____
Check q17 about expectations.
_____
_____
_____
_____
_____
_____
_____
_____
_____

Check q26 about satisfaction with channels
_____
_____

Check q22 and q23 about hours/days they watch.
_____

Check q16 about changes in viewing habits and preferences.
_____
_____

317

What did you think about the EPG back then? Could you find your way around it? Was it helpful?

Now, think back at the time that you bought it. How did you feel back then? Were you all excited about this new piece of equipment or reluctant and confused on how to make it work and how to get used to it?

How did the other members of your family react when you got it?

What about your/their friends? Would you invite them over to watch telly?

What sort of channels and programmes would you watch back then?

And now, after __ year(s) of having it how do you feel about it?

Do you use it any differently? Do you watch more, less etc.

DTV has changed a lot since your subscription. Now you get even more channels, pay per view, more interactive services etc. Do you like this? Do you think it is important for you?

Interactivity

What do you think about the interactive services Sky offers? Do you use them? Why do you use X and not Y and Z?

(probe about each interactive service, ease of use, safety, purpose etc.)

What does 'interactive' mean to you?

Do you want to be interactive? IF YES

What drives you to be interactive? What do you value most about interactivity? Do you have any worries about it?

What about back then when you did not have any interactivity in your TV, how was that like? Was it better, worse, easier, more convenient, boring etc?

IF NO

Why not?

Why do you prefer the Internet over DTV concerning Interactivity? Do you have any stories to tell that demonstrate how the Internet is more efficient in this respect?

Interactivity on TV is said to be a revolution. How do you feel about that? Is it really what they say it is?

For example, when your first got your subscription/interactive services, were you really surprised by all these things you could do from your TV set? Or was it like you expected it to be?

Was it more difficult to use these services back then? In what sense? Do you now feel more comfortable

---

_____
_____
_____

Check q27 about use and frequency of interactive services and q28 about feeling comfortable using.

_____
_____
_____
_____
_____
_____
_____
_____

Check q29, 30, 31 and 32 about Internet use and if prefer Internet bring discussion here instead of in '**Computers and IT**' theme.

_____
_____
_____
_____

X=most used interactive service

_____
_____
_____

using the interactive services? In what sense?

How did you start using X, Y or Z? Was it your curiosity to find out what it is? Or the need to make the best out of your DTV? Something else?

Have you any stories to tell about your early experiences with the interactive features?

So, can you describe how you normally use X interactive service, these days? Are you watching TV and then get bored and start playing around with X? Do you actually switch your DTV on just to use X?

Since you got your subscription many things changed on the way Sky delivers interactive services. Do you think it is better\worse now? What did you think of Open…?

And what about those interactive facilities you can use without interrupting your TV viewing, like X, Y, Z, how do you feel about them? Which is the one you liked the most?

Do you use interactive services more than you used to when you subscribed? Why\why not?

And what you do when a new interactive feature is introduced in your DTV. How do you find out? Do you check it out and use it as soon as you hear it is on?

Would it be ok with you if you would just demonstrate to me how these interactive services work? *(Ask for demonstration of use of favourite interactive services and comment, probe during the process about ease of use, content etc. Also ask interviewee to take you through the EPG).)*

How would you feel if all interactivity was taken away from your TV? Would you miss it?

Person X in your family is using X and Y interactive services more. Why do you think is that?

If person X is child ask

Do you think it is important that your child(ren) are familiar with interactivity?

How much time on average does child spend doing X per session?

Are you happy child is doing this? If yes, why?

Or do you think child is wasting time? If yes, why?

Do you think that TV with interactivity is better TV? Why?

What changes would you like to see on the interactive services you get?

Computers and IT

But can't you\you can use some other technologies to do X, Y, or Z? Why do you\don't you prefer to do these through your DTV?

If X= games, check if they have TV-linked games machine and ask to compare the consumption of the two. _____
_____
_____
_____

Check q33 if they have Internet and q32 if they have engaged in shopping through the Internet.
_____
_____
Check q33 about what sort of equipment they have in the house.
_____
_____
_____

What about the Internet? Do you think it is a more\less appropriate platform for such services? Why?
What is your view about new technologies? You yourself have X, Y and Z in your household. Why is that? Why are these important for you?

There is a concern these days about the so-called digital divide, the fact that some people have access to technologies and information, while others don't. How do you feel about that? Do you thing that it is important that everyone has access to new technologies like the Internet and Digital TV? Why\why not?

Future
How do you see the future of TV?
Do you agree with the fact that sooner or later analogue TV will cease to exist and everybody will have to take digital TV? Why\why not? *(probe on the fact that they were early adopters)*
What is your ideal TV?

If enough time, bring in pictures/posters with adverts where considered appropriate and ask them to comment. Or let them see them all and ask which one appeals to them more and why.
Straplines with Bob the Installer:
With Sky digital, the entertainment never stops
With Sky digital, the world's waiting to be discovered
With Sky digital, you get more peace and quiet
With Sky digital, films start when you stop
With Open…. the shops never shut
With Sky digital, you call the shots
With Sky digital, value is everything
With Sky digital, the world deserves a closer look
With Open…. it's game on
Bet while you watch sport – only on Sky digital

Coding variables and categories of analysis

Family/daily life
- Patterns of daily life for subscriber and rest of family
- Individual activities
- Shared activities
- 'Institutionalised activities'
- Leisure activities
- Sources of arguments

Media and everyday life
- Media use of subscriber and family members
- Shared use
- Individual use
- Time of TV viewing and relation to domestic routines (early morning TV viewing, day-time TV viewing, afternoon TV viewing, evening TV viewing, weekend TV viewing)
- TV viewing as a source of arguments – how are these negotiated and resolved
- Spatial context of TV viewing
- Parallel TV viewing (different sets)
- Parental rules for/monitoring of children's TV and media use
- Content preferences
- Regular programmes
- Random TV viewing
- Computer use (when, how, by whom)
- VCR use (when, how, why, by whom)
- Other media use (when, how, why, by whom)

Interactivity
- Use of interactive services (which, why, how often, how, by whom)
- Distinction between 'Open….' and 'enhanced' interactivity
- How long have been using interactivity
- If not, why don't they use it.
- Frame of their non-interest in using it
- Does discourse on Internet and computers come in
- Comparison between Internet/PC and interactivity on TV
- If yes, reasons for preferring the Internet
- How long have been using the Internet (at home/work)
- What for
- Use of 'enhanced' interactivity
- Mood/ programme factors affecting their use
- Changes they want to see on interactive services
- Perceptions of computers/internet and DTV

Technology
- Technology equipment in the household.
- Reasons for purchase
- Where are they kept
- Use (how, why, when, by whom)
- Attitudes to technology
- Values attached to technology
- Children and technology
- Perceived ownership: shared vs. individual technologies
- Digital divide

Reasons for take up
- Associated benefits
- Needs
- Expectations
- Role of advertising/promotion
- Role of friends/relatives who had it
- (Dis)satisfaction with previous service
- Family dynamics
- Negotiations for company/package

Familiarisation
- Pay TV
- Installation and early experience with DTV
- Early use
- Changes of use (time, content, preferences)
- Reflections on changes
- Keeping up with new added services

Satisfaction
- Evaluation of service in relation to early expectations/reasons of take up
- Most valued feature (why)
- Programming
- Channels/choice
- Package
- Interactive services
- Cost
- Technology
- Installation
- Customer services/company
- Changes would like to see
- Ideal TV

Relation to stratification variables:

Households with/without children:
With children
- Conflicts arising from use → issues of individualisation → changing consumption → Sky link to more/all TV sets in the household
- But also: more shared viewing + worries about monitoring of children's use
- Parents in households with children are more 'progressive' in their use (interactivity), more technology literate and are more likely to perceive of DTV as a multimedium. Evident concern about need for children to use technology and for them to adapt.

Without children
- DTV equals TV viewing of programmes

Old/new to multichannel TV
- New to multichannel TV subscribers, who previously had terrestrial television are more willing to experiment/take up interactive services and more overwhelmed by DTV's newness.
- Old Sky analogue subscribers perceive it as a continuation/upgrading of their old Sky service. They acknowledge it offers a qualitatively different but not a breakthrough experience.

APPENDIX 4: Images of 'Open….'

OPEN…. INTERACTIVE SERVICES

These images/screenshots of Open….logo, keypad and screen menu have been removed as the copyright is owned by another organisation.

APPENDIX 5: Advertising images and marketing material

Calendar[162]: Key dates and moments in the design and development of Sky digital

September 1998
Sky digital launching campaign part one: the set up.

1st October 1998
Sky digital -the UK's first digital TV service- launches with 140 channels of news, sport, documentaries, movies and entertainment. Part two of the launching campaign: the launch starts. More than 100,000 digiboxes are sold in the first 30 days.

November 1998
Part three of the launching campaign: the features and benefits.

December 1998
Part four of the campaign: the Pre-Xmas sales.

February 1999
Launch of pay per view. First pay per view football: Oxford v Sunderland.

May 1999
Sky digital is confirmed as the world's fastest digital launch, with 551,000 sales by 3rd May 1999 (of which over 212,000 (39%) were new subscriptions).

June 1999
BSkyB launches its free minidish and digibox offer with a one-off installation fee of £40. It is called the 'Free Digital Initiative'. Sky plans analogue switch off by 31 December 2002.

August 1999
Sky Sports Extra is launched, offering the world's first live interactive football coverage on TV.

September 1999
Launch of the enhanced pay per view service providing a choice of up to 25 films per nights every 15 min.

12 October 1999
'Open.…' launches its interactive television service offering a range of shopping (e.g. Dixons, Argos, WHSmith etc.), email, banking, games and information. BSkyB announces that Sky digital packages will contain 20 Radio stations broadcasting in digital quality from November 1999.

November 1999
Sky is awarded the Judges' Award for Technical Innovation by Royal Television Society.

---

[162] Sources: Sky digital marketing material; BSkyB quarterly and annual results 1998 to 2001; BSkyB, 2001, *Everyone's Watching report*; *Sky Fact Book,* 2003, 2004, 2005.

December 1999
BSkyB installs over 70,000 digiboxes per week in December, with new subscribers representing 70% of the total installations.

January 2000
'Open….' reports 350,000 email users and 40,000 users of the TV baking service with HSBC. 127,767 orders were processed through 'Open….' between launch and Christmas.

February 2000
Sky Sports extends the interactive features to the first of England's home games in the Sky Nations rugby championship. Sky digital sales are up to 2.6 m. 55% of all subscribers are new subscribers. Sky announces that Sky Box Office, FilmFour, Granada Breeze and Sky technology channels will be dropped from the analogue platform starting from April.

March 2000
The Royal Television Society awards BSkyB the Gold Award for outstanding services to television.

22 March 2000
Launch of the 'Digital Vision' campaign with the first of two 60-second TV adverts.

27 March 2000
The first national interactive TV advert is screened on 'Open….'. Viewers have the potential to buy what they see advertised on their TV screen.

May 2000
Sky Sports' live interactive football is awarded the Royal Television Society's award for Sports Innovation of the Year. 'Open….' claims to have over 750,000 registered email users making it one of the top 5 providers of electronic mail in the UK. 10.2% of homes with access to 'Open….' have made a purchase since launch.

June 2000
Sky News launches the world's first interactive television news service – Sky News Active. BSkyB secures live rights to FA Premier League for another 3 years with a successful bid. Digital churn rate is 3.5%.

July 2000
Sky digital subscription base reaches 3.8 m. Plans for switch off of analogue Sky are moved to June 2001, before the originally planned date of December 2001.

August 2000
Sky One puts new comedy and drama at the heart of its autumn schedule.

September 2000
BSkyB announces Europe's first Integrated Personal Television Recorder (TiVo). Sky News Active wins the Production Solutions Award for Achievement in Interactive Broadcast.

October 2000
BSkyB brings TiVo to the UK market. Over 4 million Sky digital subscriptions have been achieved.

December 2000
Sky launches digital text, featuring on-screen betting. 'Open….' has 1.3 million registered e-mail accounts.

18 January 2001
E4, the new entertainment channel form channel 4, is launched and available to Sky digital.

February 2001
Sky reached 4,668,000 digital subscribers at the end of year 2000. 92% of the company's subscriber base is now digital.

March-May 2001
Marketing campaign 'More people going digital choose Sky'.

March 2001
Sky digital reaches a 5.4 million subscription base by the 31 of March. 95% of all BSkyB subscribers are now digital.

April 2001
Sky digital introduces Personal Planner that allows viewers to create their own personalized TV schedules. Viewers select their favourite programmes from the On-screen Sky guide creating their own personal list of viewing highlights of the week. Personal *Planner* switches channels automatically when their favourite show is about to begin.

May 2001
BSkyB completes the acquisition of HSBC and Matsushita shareholdings in British Interactive Broadcasting Holdings Limited (BiB). BSkyB's stake in BiB is now 80.1% and all interactive and online activities are consolidated within 'Sky InterActive'.

June 2001
Sky introduces BBC's Wimbledon interactive. Viewers can watch up to five live matches at the same time on screen. Sky digital delivers the facility that allows Text messaging to mobile phones with the use of Sky remote control or keypad. Over 700,000 E4 Big Brother users vote with their remote on Sky digital. E4's Big Brother interactive on gives viewers an additional four video streams and the facility to register their vote. Big Brother has received over 2 million votes via the telephone, Internet and interactive TV. 35% of the total voted was sent via the Sky digital remote control.

September 2001
Sky analogue is switched off. Sky is now fully digital

Images of Bob Stevens, the installer

These images/screenshots of Bob the installer outside his van and Bob with Sky message have been removed as the copyright is owned by another organisation.

These images/screenshots of Bob the installer with satellite dishes and Bob outside his van have been removed as the copyright is owned by another organisation.

This image/screenshot of Bob the installer driving his van has been removed as the copyright is owned by another organisation.

Extracts from advertising leaflets of the time

'Why <u>choose</u> digital satellite?

Digital quality picture and sound

See TV in a different light – not only digital quality pictures and sound, but digital satellite also offers a whole new world of interactive services through your TV.

You control your viewing

Sky guide makes it easy to find the programmes and control your viewing. This onscreen programme and listings guide lets you choose by title, type of channel or time. It also has a shortcut to your favourite channels and a parental control facility.

The widest choice of channels from Sky digital

Sky digital has the widest choice of channels from sport and movies, to news, documentaries, kids' programmes, music and general entertainment. It all means that you can watch what you want, when you want.

Sport – Sky digital is the home of sport

Only Sky digital offers the full range of Sky Sorts channels: Sky sports 1, 2 and 3 plus Sky sports extra and sky sports.comTV. Sky sports gives more hours of sports, more events, the best analysis and the inside track on the sporting world. What's more we're always pioneering new ways of covering sport. Along with MUTV, British Eurosport and other sporting events on Sky Box Office, Sky digital is a must for the sports fan.

Sky Sports Extra – only on Sky digital

With our enhanced sports coverage you can see rolling highlights, match statistics, alternative camera angles and FANZONE, allowing you to watch the game with an alternative commentator, simply by using the remote control.

Movies – Choose the film you want to watch

In digital, Sky's movie channels offer up to 28 films every night – all uninterrupted by commercials. Whether you want a comedy, a tear-jerker or something a bit more arty, there'll be a film that suits you. Many feature Dolby surround sound and at least two movies a night are in widescreen.

Sky Box Office

Order films at a time that suits you. Sky Box Office offers up to 25 recently released films, starting as often as every 15 minutes. Simply use your remote control to order the film you want, you just pay for each film you order, currently 3 pound a time.

A world of entertainment:

Non-stop music

Whatever you're into, we're sure you'll find something you love to listen to on Sky digital. There's six MTV channels including MTV, VH1, MS as well as other music channels including The Box and UK Play.

Plus you'll also get ten audio Music Choice channels in your chosen Sky Entertainment Package and the option to add a further 34 with Music Choice Extra.

Sky News Active – only on Sky digital

The award-winning Sky News channel gives you the most up-to-date news 24 hours a day. Plus Sky digital gives you interactive news with Sky News Active – a world first. Sky's pioneering technology puts you in control over how and when you view the news you want.

15 documentary channels

Whatever you're into, get the most comprehensive selection of documentary channels, including National Geographic Channel, a choice of Discovery channels and The History Channel.

Kids' Stuff

Sky digital has 9 kids' channels to keep the kids entertained with everything from Nickelodeon and Fox kids to Cartoon network. There's also Disney Channels for all-round family entertainment.

Interactive TV from Open....

There's so much more to your TV

Shop from home

Email through your TV'

'**Open.... how very useful**

Welcome to the interactive world of Open, available to all Sky digital viewers with a digibox and minidish. All you need to do is press the interactive button on your digital remote control or Open Keypad. Then you can email, shop, bank, play games and even book your holidays all from your TV. So to interact with your television, all you need is a finger or two'

331

Marketing letters sent to subscribers
(The letters were scanned and the personal details of recipients concealed)

This letter titled 'Important new changes to your Sky analogue service' has been removed as the copyright is owned by another organisation.

This letter titled 'Important new information about your service' (page one of two) has been removed as the copyright is owned by another organisation.

7

This letter titled 'Important new information about your service' (page two of two) has been removed as the copyright is owned by another organisation.

This letter titled 'Upgrade to Sky digital for no extra monthly cost' has been removed as the copyright is owned by another organisation.

APPENDIX 6: Chapter 6 tables and graphs

Table 6.4a **Percentage of subscribers with media in the home, by gender, age and SES**

	All (N=698)	Gender (N=698)		Age (N=676)						SES (N=614)		
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
TV	100	100	100	100	100	100	100	100	100	100	100	100
VCR	97	97	98	100	99	99	98	98	85	96	99	99
Games-machine	50	46	59*	87	63	68	52	21	11*	49	57	47
Camcorder	40	40	40	30	41	47	43	42	23*	33	44	51*
DVD	22	23	22	26	27	26	5	19	10	16	26	43*
PC	65	64	67	67	64	77	75	56	30*	52	77	91*
Modem/Internet link	56	55	57	56	56	67	64	47	26*	34	70	88*
Radios	99	99	99	100	99	99	99	100	96	98	99	100
Stereo/Record CD player	96	96	97	96	99	99	95	98	82	96	97	100
Walkman/Discman	66	66	67	74	66	80	79	53	26*	59	73	81*
Telephone	98	98	98	100	100	98	97	97	99	98	99	97
Mobile phone	82	81	84	96	91	88	88	72	52	76	89	93*
Mobile phone with Internet	13	14	10	22	9	16	16	11	4	10	14	17
Fax machine	21	22	18	9	22	20	25	22	11	12	22	51*

*Statistically significant difference
GENDER: Games-machine: chi-square=11.375, df=1, sig=.000 AGE: Games-machine: chi-square=125.833, df=5, sig=.000, Camcorder: chi-square=13.554, df=5, sig=.019, PC: chi-square=61.961, df=5, sig=.000, Modem/Internet link: chi-square=42.606, df=5, sig=.000, Walkman/Discman: chi-square=89.546, df=5, sig=.000 SES: Camcorder: chi-square=8.591, df=2, sig=.014, DVD: chi-square=24.941, df=2, sig=.000, PC: chi-square=58.213, df=2, sig=.000, Modem/Internet link: chi-square=81.747, df=2, sig=.000, Walkman/Discman: chi-square=19.953, df=2, sig=.000, Mobile phone: chi-square=23.149, df=2, sig=.000, Fax machine: chi-square=49.137, df=2, sig=.000

Note: *Socioeconomic status* (SES) is measured throughout the thesis using the 3 class version of socioeconomic classification high, medium, low (1, 2, 3) based on participants' job function/occupation. 'High' stands for managerial/administrator, professional occupations, 'Medium' for intermediate occupations (i.e. secretarial, clerical, sales etc.) and 'Low' for skilled, semi-skilled and unskilled manual work etc.

Table 6.4b **Percentages of media in the home by household structure (with/without children)**

	All (N=687)	Households with children (N=399)	Households without children (N=288)
VCR	97	99	95*
Games-machine	50	67	26*
Camcorder	40	48	31*
DVD	22	26	20
PC	65	76	51*
Modem/Internet link	56	65	44*
Radios	99	99	99
Stereo/Record-CD player	96	99	92*
Walkman/Discman	66	79	50*
Telephone	98	98	99
Mobile phone	82	90	73*
Mobile with Internet	13	17	7*
Fax machine	21	22	18

* Statistically significant difference
VCR: chi-square=14.353, df=1, sig=.000, Games-machine: chi-square=111.457, df=1, sig=.000, Camcorder: chi-square=19.113, df=1, sig=.000, PC: chi-square=49.167, df=1, sig=.000, Modem/Internet link: chi-square=28.486, df=1, sig=.000, Stereo/Record -CD player: chi-square=20.231, df=1, sig=.000, Walkman/Discman: chi-square= 64.595, df=1, sig=.000, Mobile phone: chi-square=35.465, df=1, sig=.000, Mobile phone with Internet: chi-square=14.666, df=1, sig=.000

Table 6.5a **Reasons for taking up DTV by gender, age and socioeconomic status** (multiple response question) (%)

	All (N=700)	Gender (N=700)		Age (N=676)						SES (N=614)		
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
Wider choice of channels	77	76	79	96	89	77	72	71	71*	80	78	68
Better picture and sound	68	70	63*	78	67	67	70	72	66	67	73	64
More sports	49	52	44*	52	47	50	47	51	56	45	53	44
More films	32	28	39*	26	30	35	32	28	27	31	30	32
Everyone will move to DTV	29	27	31	9	27	29	33	26	32	29	29	27
Interactive services	12	11	16*	22	14	12	16	11	1*	15	9	16
DTV is the future of TV	11	12	8	13	11	8	10	13	15	10	10	13
Need for new TV set	8	8	7	-	2	6	9	14	11	8	6	9

GENDER: Better picture and sound: chi-square=3.812, df=1, sig=0.044, More sports channels/programmes: chi-square=4.222, df=1, sig=.040, More films: chi-square=8.042, df=1, sig=.005; Interactive services: chi-square=4.788, df=1, sig=.029. AGE: Wider choice of channel: chi-square=21.564, df=5, sig=.001, Interactive services: chi-square=12.347, df=5, sig=.030

Table 6.6a **Reasons for taking up Sky digital by gender, age and socioeconomic satus** (%)

	All (N=700)	Gender (N=700)		Age (N=676)						SES (N=614)		
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
Wider choice of channels	70	69	66	87	78	66	65	64	71*	71	70	57
Free Digibox offer	52	51	54	61	51	54	53	50	51	53	55	39*
Subscription to Sky analogue	44	44	43	26	33	47	48	50	48*	40	48	48
Better sports	36	38	31	22	33	35	37	37	45	32	34	52*
Better prices	23	21	26	44	29	24	20	22	14*	27	21	16
Unaware of other digital providers at time of subscription	20	18	23	13	21	17	22	22	23	22	19	13
Only Sky digital was operating at time of subscription	14	15	12	4	14	13	12	16	22	12	15	12
Interactive games	7	6	7	13	5	8	6	6	4	8	5	5
Promotional offer	6	5	7	-	7	6	8	4	6	4	9	8
TV-shopping services	6	4	8*	17	7	7	3	5	3	9	3	3*
Email services	3	3	3	4	2	3	4	6	-	4.	2	4
Dissatisfaction with previous digital provider	3	3	3	-	4	3	1	2	3	3	2	3
TV-banking services	1	1	3	4	11	1	3	1	-	1	0	1

GENDER: TV-shopping services: chi-square=43.633, df=1, sig=.050. AGE: Wider choice of channel: chi-square=12.035, df=5, sig=.034, Subscription to Sky analogue: chi-square=12.822, df=5, sig=.025, Better prices: chi-square=12.719, df=5, sig=.026. SES: Free Digibox offer: chi-square=6.229, df=2, sig=.044, Better sports: chi-square=10.381, df=2, sig=.006, TV-shopping services: chi-square=8.430, df=2, sig=.015

Table 6.7a **Sources of initial knowledge of DTV by gender, age and SES** (%)

	All (N=700)	Gender (N=700)		Age (N=676)						SES (N=614)		
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
TV advertisement	56	56	57	61	58	63	54	53	41	57	59	49
Other forms of promotion/advertisements	24	26	20*	13	26	28	22	27	21	20	28	31
Friend/ colleague/ relative/ neighbour	18	20	15	35	25	19	15	10	18*	17	22	17
Newspaper/magazine article	15	18	11*	-	14	16	17	18	12	14	17	16
Saw it in a shop	13	13	11	22	12	13	14	12	12	17	11	8
From children	10	8	13*	4	1	7	14	16	16*	11	7	4*
From partner	3	1	7*	4	6	2	1	3	1	4	2	1

GENDER: Other forms of promotion/advertisements: chi-square=3.981, df=1, sig=.046, Newspaper/magazine article: chi-square=4.877, df=1, sig=.027, From children: chi-square=5.287, df=2, sig=.021, From partner: chi-square=19.451, df=1, sig=.000. AGE: Friend/ colleague/ relative/ neighbour: chi-square=15.058, df=5, sig=.010, From children: chi-square=26.602, df=5, sig=.000. SES: From children: chi-square=6.100, df=2, sig=.047

Table 6.12 **Who wanted to subscribe to DTV by gender** (multiple response question) (%)

	All (N=700)	Gender (N=700)	
		Male	Female
Subscriber	81	89	64*
Partner	40	30	59*
Children	21	16	28*
Other household members	8	6	10

Subscriber: chi-square=61.505, df=1, sig=.000, Partner: chi-square=56.744, df=1, sig=.000, Children: chi-square=13.419, df=1, sig=.000

Table 6.13 **For those households where disagreements about subscribing to DTV appeared these were**:

(N=74)	%
Between subscriber and partner	77
Between subscriber and children	16
Between partner and children	4
Between children	3

(Between subscriber and partner by gender: chi-square=6.169, df=1, sig=.013, male 9.9%, female 4.4%)

Demographics: comparisons with UK population data of National Surveys

Gender composition	Population 1999[163]	Sky digital subscribers 2000-2001 FGDTV survey
Male	49.24	67.8
Female	50.75	32.2

Ethnicity

Ethnic group	1998-99[164]	2000-2001 FGDTV survey
White	94.1	95.5
Black	1.9	1.2
Indian	1.4	0.6
Pakistani	0.9	0.6
Bangladeshi	0.4	0.1
Other groups[165]	1.4	1

Households by size (number of people living in the household, including the respondent)

	2000[166]	2000-2001 FGDTV survey
One person	29	7
Two people	35	35
Three people	16	22
Four people	14	24
Five people	5	9
Six or more people	2	3
All households	23.9m	23.9m
Average household size (number of people)	2.4	3

Household composition

	1998-99[167]	2000-2001 FGDTV survey
One family households: one member	12	7.1
One family households: couple without children	26	31
One family households: couple with dependent and/or non-dependent children	47	50.9
One family: single parent with dependent and/or non-dependent children	11	6.4
Other households	4	4.4

---

[163] Office for National Statistics.

[164] Figures are based on percentage calculation from data of the 1998-99 Survey of English Housing, Department of the Environment, Transport and the Regions

[165] Excludes those who did not state their ethnic origin

[166] Census, Labour Force Survey 2000, Office for National Statistics

[167] Census and General Household Survey 1998-99, Office for National Statistics

Graph 6.1 Pay TV take-up by platform
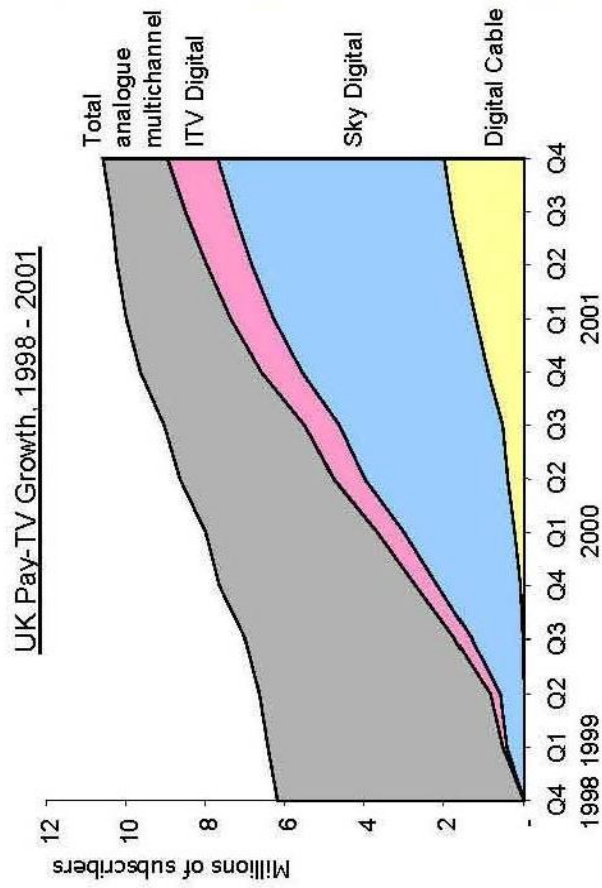
UK Pay-TV Growth, 1998 - 2001

Total
analogue
multichannel

ITV Digital

Sky Digital

Digital Cable

Millions of subscribers

12
10
8
6
4
2
-

Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
1998 1999   2000   2001

Graph 6.2 Take-up of various home entertainment equipment
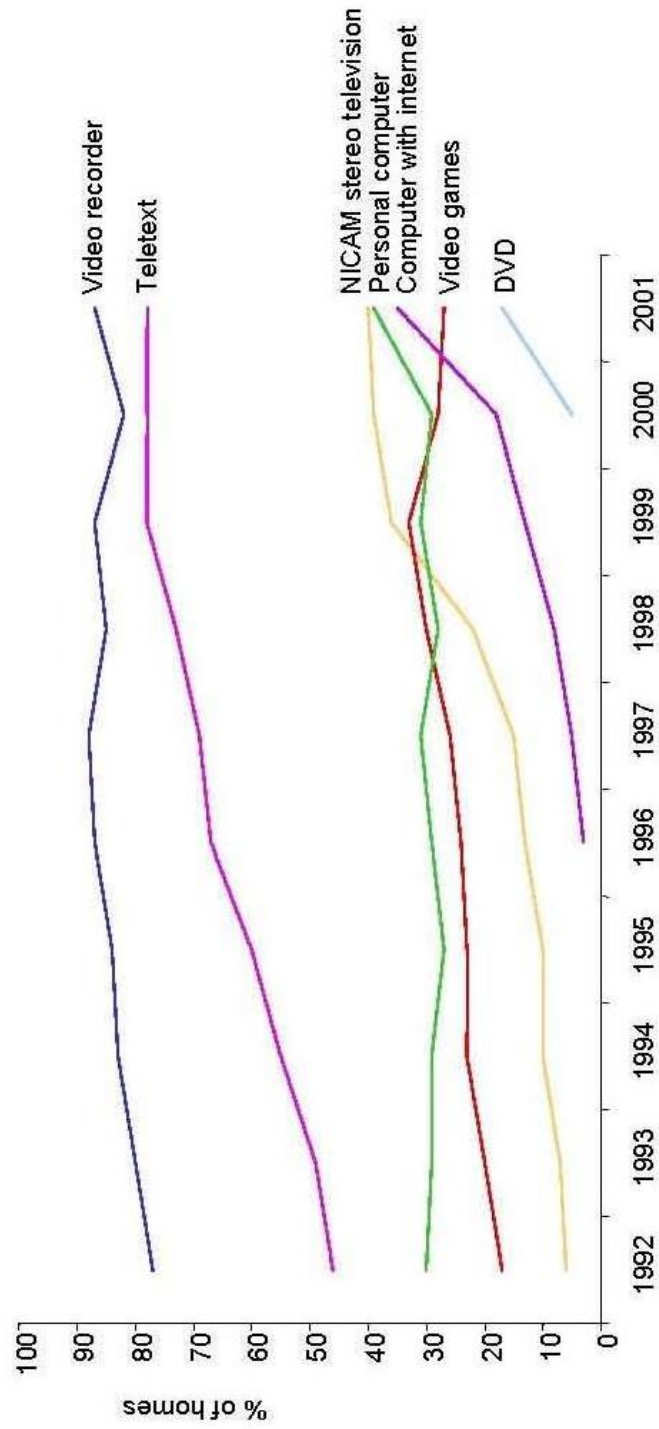
Base = All Viewers

Source: ITC, the Public's View 2001 in 'Developments in the UK Television Market', ITC, March 2002'

Graph 6.3 Take-up of digital television compared with other home technologies

Penetration (% of households)

Year After Launch

VCR 1980-1989
Colour TV 1969-1978
PC* 1984-1993
Satellite 1987-1996
Digital TV 1998-2001
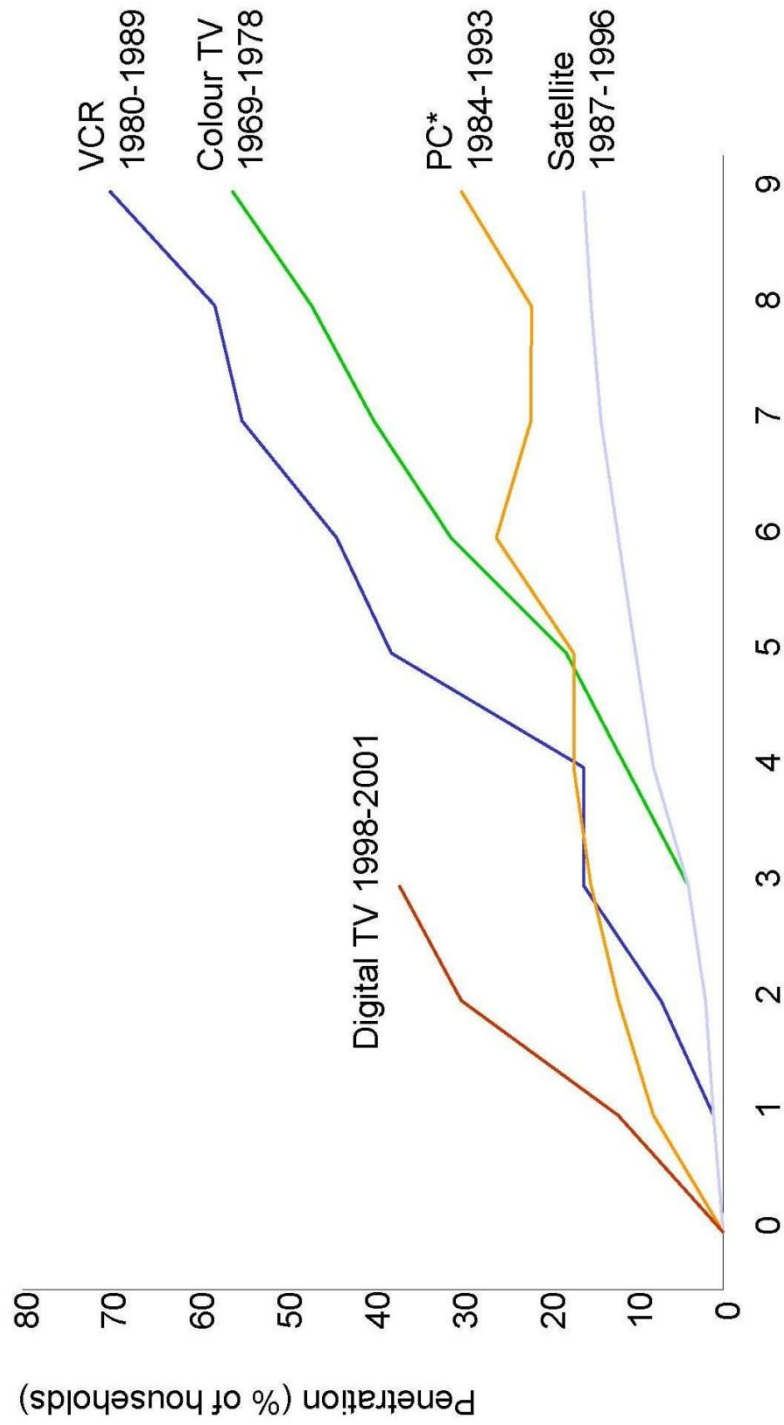
Source: ITC 'Developments in the UK Television Market', March 2002

*In the original source appears a typographic error (PC 1884-1993). This has here been corrected to: PC 1984-1993

342

Graph 6.4 *Age of DTV users at different stages of adoption*

Age of DTV users

	Oftel Jun 99 (base:DTV users)	Oftel Aug 00 (base: DTV users)	First generation DTV audience Nov 00 - Jan 01 (base: Sky digital users*)	UK Population
15-34	44%	42%	38%	35%
35-54	45%	39%	39%	33%
55+	11%	19%	23%	32%

■ 55+   ■ 35-54   ■ 15-34
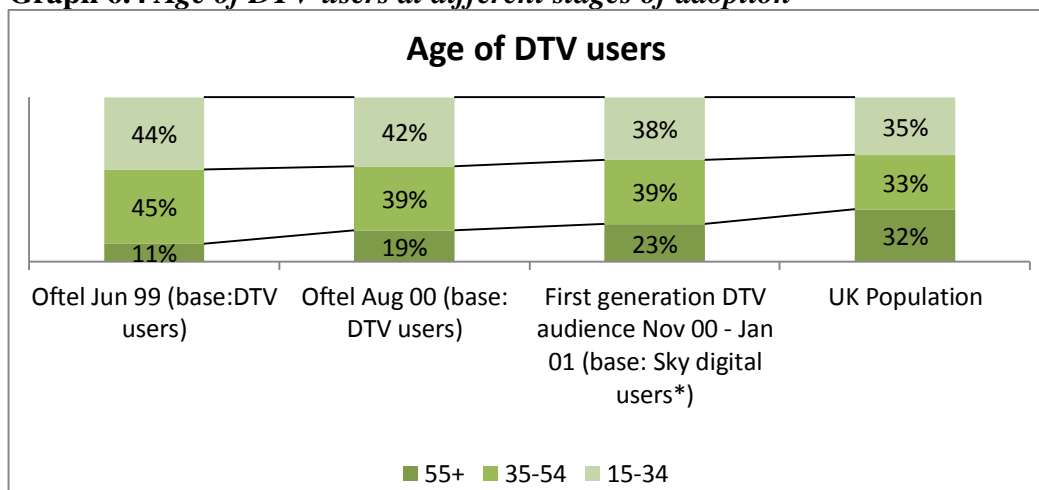
* The percentages for Sky digital users refer to the ages of all household members of each Sky digital subscriber participating in the survey. These are valid responses (N=1501). The percentages do not include the 'under 15' category so as to be consistent with the data from Oftel research and the UK population which do not include this category in their measurement scales.

Commercial and State Research Reports on <u>DTV</u> referred to in chapters 6 and 7

Name: Oftel (2000a) - Consumers' Use of Digital TV. Summary of residential survey Q1
Oftel residential survey
Date of release: July 2000.
(quarter 1)
Date of conduct: Conducted in May 2000 with a detailed follow up survey in July 2000)
Sample: 2070 UK adults of whom 19% claimed to have DTV. The sample was representative of UK adults, reflecting the UK profile of sex, age, social grade, region and employment status. A follow up survey was conducted amongst 250 DTV homes during July 2000. This used a representative sample of DTV users.

Name: Oftel (2000b) - Consumers' Use of Digital TV. Summary of residential survey Q2
Date of release: August 2000.
(quarter 2)
Date of conduct: 17-21 August 2000.
Sample: 2092 UK adults of whom 21% claimed to have DTV. The sample was representative of UK adults, reflecting the UK profile of sex, age, social grade, region and employment status.

Name: Consumers' Association (2001) - Turn on, Tune in, Switched off: Consumers attitudes' to digital TV
Date of release: March 2001
Date of conduct: 23 February – 1 March 2001
Agency: Consumers' Association
Research design: survey
Sample: 1918 interviews with British adults (15+) from Ipsos-RSL face to face omnibus (Capibus). The sample is representative of British adults.

Name: Mori (2001) - Digital Television 2001
Date of release: June 2001.
Date of conduct: 1-5 March 2001.
Agency: Mori (conducted for the Department for Culture, Media and Sport).
Research design: Qualitative (focus groups) and Survey
Sample: Representative quota sample of 1918 adults aged 15+ at 190 sampling points across Great Britain. Out of those 559 are existing DTV viewers. One interview per household was conducted. Data have been weighted to reflect the national population profile.

Name: Cumberbatch et al. (2000) - Television: The Public's View 2000
Date of conduct: 2000
Authors: Cumberbatch, G. Wood, G. and V. Littlejohns
Agency: ITC
Research design: Survey The digital Panel
Sample: Drawn randomly from the Electoral Register Enumeration Districts. Respondents are recruited on the basis of a pre-specified quota such as number of males and females, those working or unwaged and age band. It is re-weighted to ensure that it is representative of known demographics. A total of 1173 interviewees.

Name: Towler, R, (2001) - The Public's View 2001
Date of release: 2001
Author: Towler, R.
Date of conduct: 7 August – 11 September 2001
Agency: ITC/BSC conducted by BMRB international
Research design: Survey – face to face
Sample: Drawn randomly from the Postcode Address file. Respondents are recruited on the basis of a pre-specified quota such as number of males and females, those working or unwaged and age band. It is re-weighted to ensure that it is representative of known demographics. A total of 1228 (16+) interviewees.

Name: Towler, R. (2002) - The Public's View 2002
Date of release: 2002
Author: Towler, R.
Date of conduct: 25 March – 8 April 2002 and 26 August – 15 September
Agency: ITC/BSC conducted by BMRB international
Research design: Survey –face to face
Sample: Drawn randomly total of 1191 (16+) interviewees.

Name: IDATE (2000) - Development of Digital TV in Europe: United Kingdom, 2000 Report
Date of release: December 2000
Agency: IDATE
Research design: statistics

INTERVIEW TRANSCRIPTION CONVENTIONS

[	Overlapping speech: the precise point at which one person begins speaking whilst the other is still talking, or at which both begin speaking simultaneously.
- - -	One of the speakers is interrupted by the other, though he/she had the intention to go on talking.
☺	Laughs
(0.2) etc.	Pauses: within and between speaker turns, in seconds.
Hhm	Audible intakes of breath. The number of h's is indicative of the length of the breath.
I	Interviewer

Interviewees' name initials or name are used to signify interviewees' speech.

Table 7.1.a[168] **Frequency with which subscribers say they use various media, by gender, age and socioeconomic status**

		Gender (N=698)		Age (N=676)						SES (N=614)		
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
Watch TV	Daily	81	83	83	83	82	80	82	86	85	80	76
	At least once a week	19	17	17	17	18	20	18	14	15	20	24
	Once a month or less often	-	-	-	-	-	-	-	-	-	-	-
	Never	-	-	-	-	-	-	-	-	-	-	-
Watch videos	Daily	3	3	9	3	4	1	3	3	2	2	4
	At least once a week	50	49	65	59	51	47	46	45	53	51	48
	Once a month or less often	36	33	22	31	32	43	40	22	32	37	37
	Never	11	15	4	7	13	9	11	29	13	10	11
Use pc	Daily	26.9	23	30	29	30	29	18	16	16	32	4
	At least once a week	30	32	22	34	37	34	29	7	26	38	37
	Once a month or less often	5	5.8	13.	4	7	7	3	4	8	5	1
	Never	38	39	35	33	26	31	51	73	51	26	13
Use Internet	Daily	18	15	30	24	19	17	8	7	11	18	37*
	At least once a week	28	28	13	27	37	34	27	7	18	19	40
	Once a month or less often	8	6	17	7	7	10	5	4	8	9	5
	Never	46	51	39	40	37	39	61	81	64	34	17
Listen to radio	Daily	44	47	30	43	44	51	45	43	38	49	53
	At least once a week	35	34	57	36	30	29	34	38	40	30	24
	Once a month or less often	12	8	1	11	12	12	8	1	11	10	12
	Never	10	11	9	9	13	9	13	10	11	10	11
Play records/CDs	Daily	17	19	17	23	23	18	10	6	15	16	27
	At least once a week	56	57	74	63	56	56	56	45	57	61	51
	Once a month or less often	18	17	9	12	14	19	25	26	19	18	15
	Never	9	7	-	2	8	8	10	23	9	6	8
Read news-paper	Daily	61	57	61	45	50	65	75	74	65	56	55
	At least once a week	30	30	22	41	37	29	14	21	23	36	35
	Once a month or less often	3	5	13	5	4	-	6	-	5	2	7
	Never	6	8	4	9	8	5	5	6	8	7	4
Talk on the phone	Daily	61	72	74	67	62	64	71	56	63	68	67
	At least once a week	34	24	20	22	32	32	24	42	33	29	29
	Once a month or less often	4	2	-	2	4	3	4	1	3	3	4
	Never	1	1	-	1	2	1	1	1	1	-	-

SES: Use of Internet: chi-square=89.774, df=6, sig=.000

---

[168] Tables show percentages %, unless elsewhere stated

Table 7.2a **Percentages of type of viewer by gender, age, and socioeconomic status** (%)

Viewer status+	All (N=696)	Gender (N=696)		Age (N=672)						SES (N=610)		
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
Heavy viewer	31	31	32	39	29	29	28	35	50	42	23	11*
Moderate viewer	48	48	47	44	50	48	52	46	33	44	45	51*
Light viewer	21	21	21	17	23	24	21	19	17	14	23	38*

+ Viewers watching 35 hours or more in a week are categorised as heavy viewers; moderate viewers are those watching 15 to 34 hours in a week; light viewers watch less than 15 hours a week.
* Statistically significant difference. SES: chi-square=45.274, df=4, sig=.000

Table 7.3a **Programme preference by age, gender and socioeconomic status** (%)

Programme preference	All (N=700)	Gender (N=700)		Age (N=676)						SES (N=614)		
		Male	Female	18-24	25-34	35-44	45-54	55-64	65+	Low	Medium	High
Feature films	69	69	71	52	73	71	71	67	64	67	72	67
Comedy	69	70	65	78	81	66	65	66	64*	63	73	72*
Sports	62	73	41*	52	54	58	65	71	73*	58	65	75*
Drama	51	46	62*	35	46	54	52	51	59	50	51	55
News/Current affairs	51	53	45*	17	36	40	61	69	66*	49	51	61
Lifestyle	47	43	55*	35	42	47	53	54	40	46	48	45
Natural science	47	50	39*	17	33	49	52	62	47*	44	52	49
History/Art/Culture	40	43	34*	17	27	43	44	51	47*	38	43	40
Music	40	40	39	70	56	44	37	25	18*	37	44	36
Crime/Horror	35	34	38	39	39	39	42	24	22*	38	36	20*
Quizzes/ Game shows	34	31	40*	13	31	34	37	40	34	37	33	25
Soaps	33	27	45*	35	35	31	31	34	37	42	26	16*
Sci-fi	30	32	25	44	30	35	32	28	14*	30	33	25
Talk/Chat shows	27	22	37*	30	29	25	27	31	23	30	26	15*
Cartoons/Kids prog.	19	16	25*	26	27	29	11	8	10*	20	19	12
Adult entertainment	12	15	5*	13	15	15	11	8	8	11	15	11
Other	2	2	0.4	-	1	2	2	3	1	2	1	1

* Statistically significant difference.
GENDER: Sports: chi-square=66.152, df=1, sig=.000, Drama: chi-square=15.184, df=1, sig=.000, News/Current affairs: chi-square=3.949, df=1, sig=.047, Lifestyle programmes: chi-square=9.231, df=1, sig=.002, Natural science: chi-square=7.816, df=1, sig=.005, History/Art/Culture: chi-square=5.359, df=1, sig=.021, Quizzes/Game shows: chi-square=5.839, df=1, sig=.016, Soap Operas: chi-square=22.319, df=1, sig=.000, Talk/Chat shows: chi-square=17.086, df=1, sig=.000, Cartoons/Kids programmes: chi-square=8.504, df=1, sig=.004. AGE: Comedy: chi-square=13.044, df=5, sig=.023, Sports: chi-square=13.573, df=5, sig=.019, News/Current affairs: chi-square=56.045, df=5, sig=.000, Natural science: chi-square=29.488, df=5, sig=.000, History/Art/Culture: chi-square=23.189, df=5, sig=.000, Music: chi-square=49.128, df=5, sig=.000, Crime/Horror: chi-square=16.542, df=5, sig=.005, Sci-Fi: chi-square=13.779, df=5, sig=.017, Cartoons/Kids programmes: chi-square=37.900, df=5, sig=.000. SES: Comedy: chi-square=6.223, df=2, sig=.045, Sports: chi-square=7.263, df=2, sig=.026, Crime/Horror: chi-square=8.941, df=2, sig=.011, Soap Operas: chi-square= 27.043, df=2, sig=.000, Talk/Chat shows: chi-square=7.008, df=2, sig=.030

Table 7.4a **Frequency of use of interactive services** (%)

(N=700)	Daily	At least once a week	Once a month or less often	Never
Shopping	0	2	19	79
Banking	0	2	4	94
Emails	0	2	9	89
Games	1	15	35	49
SSA	1	23	25	50
PPV	0	3	45	51
Radio	2	15	23	60

Table 7.4b **Use of interactive services by gender, age, and socioeconomic status** (%)

Interactive services	All (N=700)	Gender (N=700)		Age (N=676)						SES (N=614)		
		Male	**Female**	**18-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65+**	**Low**	**Med**	**High**
Shopping	21	18	28*	52	24	23	22	15	10	23	21	16
Banking	6	6	5	22	5	5	7	4	3	7	4	4
Emails	11	11	12	17	10	12	12	12	4	13	9	15
Games	51	48	56+	87	64	65	43	37	19*	58	54	29*
SSA	50	54	41*	57	51	55	50	52	33*	46	54	61*
PPV	49	47	52	78	62	57	52	31	16*	48	53	60
Radio	40	41	38	44	40	43	46	43	16*	40	44	47

* Statistically significant difference. GENDER: Shopping: chi-square=10.775, df=1, sig=.001, SSA: chi-square=10.489, df=1, sig=.001. AGE: Games: chi-square=77.813, df=5, sig=.000, SSA: chi-square=11.142, df=5, sig=.049, PPV: chi-square=69.185, df=5, sig=.000, Radio: chi-square=20.521, df=5, sig=.001. SES: Games: chi-square= 20.115, df=2, sig=.000, SSA: chi-square=6.670, df=2, sig=.036. (+ alpha level=0.10 for games by gender, Chi-square= 3.604, df=1, sig=0.058).

Table 7.10a **Types of interactive TV use by subscribers' gender** (%). Valid N=696

	Male	Female	Total
Old fashioned	68	33	100
within respondents sex	34	34	34
Experimentalists	61	39	100
within respondents sex	12	16	14
Traditionalists	66	34	100
within respondents sex	31	34	32
Interactive DTV users (transitional/converging)	75	25	100
within respondents sex	23	16	20
Total	68	32	100
within respondents sex	100	100	100

Chi-square=6 .103, df=3, sig=.107