

Goldsmiths
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research report

**easy to use digital television receivers: remote control
buttons and functions used by different types of
consumer**

prepared for



by

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Executive Summary

Background

i2 media research was commissioned to conduct a research project for Ofcom aimed at identifying user requirements of easy to use digital television receiver equipment. The results of this work will feed into the Department for Trade and Industry's Usability Action Plan¹. The work reported here builds on earlier work by Ofcom and others on the ease of use of domestic digital television receiver equipment. This earlier work includes a report providing guidance for equipment designers on good practice for easy to use digital television receivers².

Everyone will need to be able to use digital television equipment to continue watching television after digital television switchover and previous research has identified a number of large groups of consumers who would potentially benefit from easier to use digital television equipment^{3,4,5}. These groups include older people, people with disabilities that limit their ability to use new digital television equipment, people with low confidence with technology, and people with a low motivation to take up and use the wider range of services brought by digital television.

The majority of these consumers would be able to use existing digital television equipment (some with assistance from others) to access the equivalent of what they view today using analogue equipment. However, an analysis of data collected in research by i2 media research for the Department of Trade and Industry, indicates that between 3-5% of UK adults who can currently use analogue television may find digital television very difficult to use. The key characteristics of these consumers are that they: live alone, are not at all confident with technology, are fully reliant on analogue broadcasts (i.e., have not adopted digital television to date), feel that there are too many buttons on their remote controls, are happy with just the main 4 (or 5) channels, and never record one television channel on a video recorder whilst watching another.

Consumers with these characteristics are significantly older than average and approximately 50% are aged 75 years and over. This illustrates a high potential degree of overlap between the consumers who are most likely to benefit from equipment designed to take account of the findings of the current project, and consumers likely to qualify for assistance from the Switchover Help Scheme. Hence, there are potential advantages in using the results of this and previous research on the ease of use of digital television in specifying equipment for the Help Scheme.

¹ http://www.digitaltelevision.gov.uk/pdf_documents/publications/2007/uapfebupdateannexa.pdf

² Ofcom, Summary of research on the ease of use of domestic digital television equipment, 8th March 2006

<http://www.ofcom.org.uk/research/tv/reports/usability/dtvu.pdf>

³ Previous estimates of the size of the groups of consumers who could benefit from easier to use equipment range up to 8 million

⁴ i2 media research [Freeman, J., Lessiter, J., & Pugh, K. (2006, March)] Equipment needs of consumers facing the most difficulty switching to digital television. Report for the UK Department of Trade and Industry:

http://www.digitaltelevision.gov.uk/pdf_documents/publications/2006/i2mediaresearch_report.pdf

⁵ Scientific Generics [Klein, J., Scott, N., Sinclair, K., Gale, S., & Clarkson, J. (2006, April)] Equipment needs of consumers facing the most difficulty switching to digital television. Report for the UK Department of Trade and Industry:

http://www.digitaltelevision.gov.uk/pdf_documents/publications/2006/eq-needssofconsumers.pdf

Project objectives

The main objective of this research project was to provide user research insights on the needs and expectations of consumers who are likely to experience most difficulty using digital television equipment. The intention is that the results of this work will feed into the design and development of easy to use digital television equipment by digital television receiver and remote control manufacturers, rather than to generate prescriptive design information for easy to use equipment.

The research aimed to answer the following questions in relation to consumers likely to experience the most difficulty using digital television equipment⁶:

- which buttons and functions do they use on their existing remote controls;
- what digital television remote control functions do they currently prioritise;
- to what extent do they perceive easier to use remote controls as being essential;
- to what extent would they see very simple remote controls, offering reduced functionality as being a necessity;
- what would be the best design approach to meet their needs for easy to use remote controls; and
- what would be their attitude towards and expectations of different methods for making available easy to use remote controls (including a comparison of preferences for easy to use remote controls supplied with the digital receiver relative to standalone after sales solutions, and preferred distribution channels).

Key Research Findings

This section provides a brief summary of the full report findings.

1. There is a limited set of basic remote control functions used and required by all consumers

The basic functions of digital television equipment needed after digital television switchover by all types of consumer identified in the current research were:

- a. power on/off
- b. volume control
- c. mute
- d. channel entry
- e. channel up/down

2. Consumers ignore or avoid buttons they do not need

Most of the consumers in the research reported that they are able to use remote controls for television equipment that include buttons with whose functions they are unfamiliar or unaware. The buttons were simply ignored or avoided.

3. Grouping remote control buttons by function will help people to use digital television equipment

Related to 2 (above), the research indicates that there is likely to be a value in grouping remote control buttons into functional zones. Grouping functions within

⁶ including: older people, people with physical, sensory or cognitive disabilities that limit their ability to use new digital television equipment, people with low confidence with technology, and people with low motivation to the benefits of digital television

such zones would make it easy, for example, for viewers who wanted only to watch television to simply use the buttons within the core/basic grouping – to switch the receiver on and off, change channels, and control volume – and ignore or avoid buttons they do not need. Four key functional zones identified in the research were ‘core/basic’, ‘interactive’, ‘recording’ and ‘accessibility’.

A list of the most appropriate remote control buttons (functions) to include within each functional grouping identified in the research is provided below:

i) core/basic

- power on/off
- volume control
- mute
- channel entry
- channel up/down

ii) interactive

- EPG
- digital text services
- red button interactive services
- colour buttons
- navigation buttons (up, down, left, right, OK)

iii) recording

- play
- stop
- pause
- fast-forward (and skip forward)
- rewind (fast-rewind and skip backwards)
- record
- list of recorded programmes

iv) accessibility

- digital subtitles
- audio description

4. Younger participants more interested than older participants in recording and interactive functions

A clear tendency was identified in the research for younger participants to be more interested in and motivated towards the digital recording and interactive functions than were older participants.

5. Very simple remote controls offering only core/basic functions would meet the needs of some consumers

Nearly all participants in the research reported that they are able to ignore buttons they do not use. However, some categories of older consumers (e.g., those with cognitive impairment, very low motivation towards the benefits of digital television or very low confidence with technology) are likely to have particular difficulty in learning to use new equipment. These difficulties could be minimised through the availability of very simple remote controls, offering only the basic functionality listed in finding 3 above.

Supplementary Research Findings

In addition to the above key findings a number of additional insights with the potential to inform the future provision of easy to use digital television equipment were gained and are listed below.

A. One remote control is better than two – digital set top box remote controls that can control main television functions are preferable

Whilst many of our research participants reported an ability to cope with two remote controls for television viewing, most expressed a preference (and some a need) to be able to control their television using one remote control. This suggests that a market opportunity may exist for a digital set top box remote control that is able to control the main functions of the consumer's television set (power on/off, mute, volume control) as well as the set top box. This would make the experience of using a digital set top box receiver closer to that of using a conventional analogue television set. A similar experience can already be achieved using well designed integrated digital televisions.

B. Poor user experience of after equipment sale remote control solutions

Participants in our research who had direct experience of buying a remote control as an after-market solution expressed concerns over their set-up complexity, and cost.

C. Step-by-step instructions printed on hard wearing material, and attached to new remote controls, could assist consumers to learn to use new equipment

To support consumers learn how to use new digital receivers, step by step instructions printed on hard wearing card could be attached to remote controls. The instructions would be visible to the user at the same time as the front of the remote control (i.e. attached to the back of the remote control in such a way that the user can fold out it out when required). This concept was suggested during pilots of the discussion guide, and was rated positively by participants in the research groups.

These instructions would serve as aide-memoirs to consumers as they get used to using their digital equipment, and could be designed to be removable by the user once they are sufficiently confident in their use of their new equipment.

D. Younger participants suggested changeable fascias for remote controls – to customise the user experience

Younger participants in the research suggested that changeable fascias for remote controls (using changeable fascias on mobile telephones as an example) might make it feasible to adapt them to the needs of different user groups. For example, such an approach could provide a limited set of functionality to consumers who only want access the core functionality detailed in key finding 3 above, on their remote controls.

The research findings outlined above are consistent with the good design practice for digital television receiver equipment (including the set top box/ idTV, remote control, on-screen displays and menus, installation and set-up instructions, and product packaging) previously reported by Ofcom⁷, and others⁸. This earlier research has already been used to help develop standard specifications for UK digital terrestrial television equipment and the intention is that the findings of this research report will be used to help refine these specifications.

⁷ 2006 Ofcom Summary of research on the ease of use of digital television equipment

⁸ 2006 Consumer Expert Group report on digital television receiver requirements

1. Introduction

1.1. Background and research context

i2 media research was commissioned to conduct a research project for Ofcom to identify the functional requirements of easy to use digital television receiver equipment for the large groups of consumers identified by previous research as potentially able to benefit from easier to use equipment^{9,10}. These groups include older people, people with disabilities that limit their ability to use new digital television equipment, people with low confidence with technology, and people with low motivation to the benefits of digital television.

- Scientific Generics¹¹ report estimated that easy to use digital television equipment is needed for over 8 million UK adults. This estimate comprised 2.2 million people who could benefit from a digital conversion solution (set-top box) that can operate in a mode with reduced functionality, 5.1 million people who need a fully functional solution designed to be very easy to use, and approximately 900,000 people who could benefit from assistive digital conversion solutions (600,000 with audio output, for consumers with severe visual impairment, and 300,000 consumers with other accessibility requirements such as sign language display and/or voice control).
- i2 media research identified a range of equipment solutions to meet the needs of consumers with a range of sensory, physical and cognitive impairments, with low confidence with technology, or with low motivation towards the benefits of digital television. The solutions identified included simpler remote controls, converter devices that can operate in reduced functionality modes and integrated digital televisions. In testing general market interest in the range of solutions, i2 identified that approximately 30-40% of respondents to a nationally representative survey reported a strong or moderate interest in the solutions identified for use in their homes.

The majority of these consumers would be able to use existing digital television equipment (some with assistance from others) to access the equivalent of what they view today using analogue equipment. However, designing digital television equipment with the needs of these consumers in mind, will support a more intuitive and pleasurable experience of digital television for all.

New analyses of data collected in research by i2 media research for the Department of Trade and Industry⁹ were conducted to estimate the number of UK adults who can currently use analogue television and are likely to find digital television very difficult to use. These analyses indicate that between 3-5% of UK adults are likely to find using currently available digital terrestrial television receivers very difficult.

⁹ i2 media research [Freeman, J., Lessiter, J., & Pugh, K. (2006, March)] Equipment needs of consumers facing the most difficulty switching to digital television. Report for the UK Department of Trade and Industry: http://www.digitaltelevision.gov.uk/pdf_documents/publications/2006/i2mediaresearch_report.pdf

¹⁰ Scientific Generics [Klein, J., Scott, N., Sinclair, K., Gale, S., & Clarkson, J. (2006, April)] Equipment needs of consumers facing the most difficulty switching to digital television. Report for the UK Department of Trade and Industry: http://www.digitaltelevision.gov.uk/pdf_documents/publications/2006/eq-needssofconsumers.pdf

¹¹ Sagentia

Key characteristics of such consumers include that they:

- (a) live alone;
- (b) are not at all confident with technology;
- (c) are fully reliant on analogue broadcasts (i.e., have not adopted digital television to date);
- (d) feel that there are too many buttons on their remote controls;
- (e) are happy with just the main 4 (or 5) channels;
- (f) and never record one channel whilst watching another.

Consumers with the above characteristics are significantly older than average; approximately 50% are aged 75 years and over. This illustrates the high degree of overlap between consumers with most to benefit from equipment designed to take account of the findings of the current project, and consumers likely to qualify for assistance from the Switchover Help Scheme. It would therefore be advantageous to consider the results of this and previous research on the ease of use of digital television in specifying equipment for the Help Scheme.

The current project was commissioned by Ofcom to feed in to the Department of Trade and Industry's Usability Action Plan.

1.2. Project objectives and research questions

The objective of the project was to identify functional requirements of digital television receiver equipment of consumers who may face difficulty using digital television equipment and will need to be able to use digital television equipment to continue watching television after digital television switchover. As a follow up to the research projects conducted by i2 media research and Scientific Generics conducted for DTI in 2006, a key goal of the current project was to identify the remote control functions that target users value most and use when navigating their television services.

A series of research questions to be answered by the current research was generated at the outset of the project, as follows:

- what functions do participants use on their existing remote controls?
- what functions available on digital TV remote controls do participants prioritise?
- to what extent do research participants see easy to use remote controls as essential?
- to what extent do research participants view a need for very simple remote controls, offering reduced functionality as necessary?
- what is the best design approach to meet user needs for easy to use remote controls?
- what are participants attitudes towards and expectations of different methods for making available easy to use remote controls (including a comparison of preferences for easy to use remote controls to be supplied with the digital receiver relative to standalone after sales solutions, and preferred distribution channels)?

2. Method

2.1. Sample

A review of data from our 2006 study for DTI identified three groups of consumers for inclusion in the current study:

- Group A (6 participants): elderly consumers, without digital television, social grade C2DE, aged 65+;
- Group B (7 participants): consumers with relatively low confidence with technology (self-reported) and low motivation to the benefits of digital television [identified as never/infrequent users of digital television] social grade ABC1, aged 35-54 with a slight female skew
- Group C (7 participants): younger consumers with relatively low confidence with technology (self-reported), social grade C1C2D, aged 18-34

2.2. Methodology

2.2.1. Qualitative methods

To answer the research questions outlined in Section 1.2, a qualitative research approach was adopted. The research involved 2 focus groups (sample Groups B and C), and 3 paired depths¹² (sample Group A). Paired depths were selected for sample Group A as a result of difficulties we experienced in communicating with participants with a variety of age-related sensory, physical and cognitive impairments in the context of a focus group. The paired depths were conducted at St Michaels Day Centre in Wandsworth (3 paired depths, 6 participants). Each paired depth interviewee was paid £20 for their participation. The focus groups were conducted at i2's living room lab space, at Goldsmiths, University of London. Each focus group participant was paid £35 for their time in taking part. The focus groups and paired depths were video and audio recorded to enable detailed analysis. Each discussion group was of 1.5 to 2 hours duration, and each paired depth of between 30 and 60 minutes duration.

2.2.2. Discussion Guide

The discussion guide developed for the interviews is presented in full in Appendix A. As an overview, the guide included the following sections and topic areas:

- introduction to interview and purpose of research;
- [warm up] role of TV in participant(s) live(s);
- introduction to digital TV (awareness of digital TV and its benefits, attitudes towards digital TV, perceptions of ease of use of digital television, perceptions and experiences of learning to use new equipment);
- activity 1: participants required to sketch from memory their TV remote control(s)
- discussion on features of remote control button shape, labels, positioning, and functions;
- activity 2: prioritisation (moderator facilitated using a flip chart) of different digital television receiver and remote control functions ('can't live without', 'nice to have', 'do not use/ do not need');

¹² two participants interviewed together

- prompted query of need for easy to use remote controls and digital television receiver equipment;
- role of remote control design in equipment selection;
- expectations of communications about easy to use remote controls;
- experiences of after sales remote control solutions;
- contextualising the interview: awareness of and attitudes towards digital television switchover

Prior to the conduct of the research, the discussion guide was pilot tested for length and ease of understanding with a small sample of participants in the i2 lab and at Goldsmiths.

3. Results

3.1. Preference for controlling television receiver equipment with one remote control

Of the research participants who had already adopted digital (or multichannel) TV, all reported that they are able to use two remote controls to control their television viewing (one for their TV, one for their digital receiver).

“one for the TV and one for sky” (G2, P4)

“one for the cable box and one for the TV” (G2, P2)

“one to control the volume on the TV and one for the box (Freeview)” (G2, P6)

When probed as to whether they would prefer to be able to use one or two remote controls to control their television viewing, most expressed a preference (and some a need) to use one remote control.

This finding indicates that for digital television conversion solutions using a digital television set top box, the inclusion of remote controls that are able to control the main functions of a consumer’s television (power on/off, mute, volume control) in addition to navigating the digital service would enhance the user experience. Such an approach supports set top box conversion to digital television that is as close as possible to the user experience of existing analogue only televisions. The same user experience can be achieved with well designed integrated digital televisions.

Whilst we did not probe the issue explicitly, a key design decision in relation to this approach is whether to have:

- discrete controls on the set top box remote control to support control of basic analogue television functionality (power on/off, volume up/down), or
- enable a single power on/off button to control power to the TV and set top box¹³, and enable the set top box remote control to control only TV or set top box volume.

3.2. No positive experiences of after sales remote controls

Of the 20 participants we spoke to in the project, none were able to report a satisfying example of buying a remote control as an after-market solution. A minority of our participants had previous experience using after market remote controls and raised concerns about complexity of set-up, reliability of operation and cost.

“We’ve got the remote control but sometimes we lose it so we just turn it on from the TV [moderator: have you ever bought a new remote control?] yeah

¹³ A key consideration in this regard is to ensure the TV and set top box are synchronised

I have bought one and its supposed to be like a universal, but it didn't work on it"

"Yeah I got one as well. It didn't work."

3.3. Easy to ignore buttons on remote controls that are not used or needed

Of both analogue and digital viewers within our sample, nearly all reported that there are at least some buttons on their television remote controls at home whose function they do not know. This finding was best evidenced through Activity 1 in our discussion guide, which required participants to sketch from memory the remote control(s) they use at home to control their televisions. A selection of these sketches is included in Appendix 2. All the sketches included at least some number buttons (some 1-5, most 0-9), volume up and down, channel up and down, mute, text buttons (including analogue subtitles, via 'text 888'). Most of the sketches also included arrow/navigation buttons and the colour buttons (red, green, yellow, blue). Aside from the sketches of 2 participants, all the other sketches included a selection of other buttons which the participants who drew them were unable to label or associate with a function.

[participant talks about trying to find a button on their remote control. moderator: Which button?] "EPG [P4: what does that mean?] I don't know what it means but that button"

"Well changing channels and all that kind of stuff is really easy and then, like I say, there's that EPG, there's that button, and you can look through all of it at the same time, and there's another button that you can just flick through, and I don't know what that button is [...] apparently its on both my remote controls but I cant find it on either of them. I never use it but I know its there cause the kids use it"

P5: [buttons on remote that does not use] "Waste of space, but not bothered by them - could make the remote control smaller if you didn't have all of them"

"I know what the red one's for, but what's the yellow blue and the green for?"

"There are a few buttons that everybody will know"

All interviewees indicated that they generally avoid pressing (effectively ignore), buttons whose functions they do not know. This finding highlights the need to consider good design practice in the development of easy to use remote controls. In this regard towards the end of this report, we provide references to previously published recommendations for good practice in the design of easy to use remote controls. The current research suggests that in particular, there is likely to be a value to consumers in remote controls that offer full digital television functionality within clearly demarcated functional zones – so that valued and most used functions can be easily used, and so that less used or unfamiliar functions can more easily be avoided.

3.4. Importance of functional groupings of buttons on remote controls

Integrating responses across the three groups of participants, we have identified a four functional groupings, as follows:

- Core operation
- Interactive services
- Recording
- Accessibility

The functions within each of the four zones are as follows:

3.4.1. Core operation

- power on/off (including of the TV)
- volume control
- mute
- channel entry (0-9)
- channel up/down

3.4.2. Interactive

- now and next programme information
- electronic programme guide
- digital text services
- red button interactive services
- navigation buttons (up, down, left, right, OK)

3.4.3. Recording

- play
- pause
- stop
- forward (fast forward, skip forward)
- rewind (fast rewind, skip back)
- record
- intuitive menu system (e.g. for list of recorded programmes, to view, delete, archive)

3.4.4. Accessibility

- digital subtitles
- audio description

Whilst the functions we have included within the 'Core operation' zone were recognised by all the groups as the most important functions to be included on a remote control, differences were evident in the importance attached to different functions by different types of participant. Comparing across our research groups, the focus group involving younger participants included substantially more discussion about and interest in digital recording functions and time shifting than did the focus group and paired depths involving older participants. Recognising that different types of user might prioritise more simplicity or more functionality, the focus group with younger participants generated the idea of

changeable fascias for remote controls (using changeable fascias on mobile telephones as an example). Such an approach could support more restricted functionality for consumers who do not want anything other than core functionality to be accessible via their remote controls.

3.5. Potential role for simple instructions attached to new remote controls

To maximise ease of use and support consumers in learning how to use their new digital receivers, our analysis of the data we collected suggested value in the provision of step by step instructions printed on hard wearing card - attached to remote controls. The instructions would be visible to the user at the same time as the front of the remote control, possibly attached to the back of the remote control such that the user can fold out an instruction laminate. Such instructions could serve as aide-memoirs to consumers as they get used to using their digital equipment, and could be designed to be removable by the user once they are sufficiently confident in their use of their new equipment.

4. Good practice in the design of easy to use digital television receivers

4.1. Consistency of current findings with previous research

The functional requirements identified by the current small scale research project are consistent with previous research conducted for Ofcom and DTI, by i2 and others, and with the prototype good practice design checklists developed by i2 media research for Ofcom¹⁴, and many of the recommendations of the Consumer Expert Group in their report on Digital TV Equipment: Vulnerable Consumer Requirements¹⁵.

4.2. Evaluating the ease of use of domestic digital television products

The findings of the current research and of previously published reports provide valuable insight to inform the design of easy to use domestic digital television receiver equipment. A key challenge is how best to encourage the implementation by equipment designers and manufacturers of available insights. Possible approaches include:

- the independent evaluation of the ease of use of digital television products, such as the current evaluations by Ricability for DTI, and
- more widespread use by designers and manufacturers of user-centred design processes. Compliance with a recognised user-centred design process could form part of a self certification scheme for product usability

¹⁴ republished in Ofcom's 2006 Summary of Research on the Ease of Use of Domestic Digital Television Equipment: <http://www.ofcom.org.uk/research/tv/reports/usability/dtvu.pdf>

¹⁵ http://www.digitaltelevision.gov.uk/pdf_documents/publications/digtv_equipment-march06.pdf

Annex A: Discussion guide

Equipment: Digital Camera; digital video camera, flip chart (and paper), chunky pens, post its, large sheet paper, STB, TV, sample remote controls, MP3

#	scope area	question phrasing
1	Introduction	<p>Hello, and thanks very much for agreeing to take part in this discussion about television remote controls and television reception.</p> <p>First, introductions. My name's <R1> and these are my colleagues, <R2, R3...>. We work for a team called i2 media research, based at Goldsmiths, University of London.</p> <p>We are conducting this research for Ofcom. Together, we are keen to understand what buttons you use on your remote control and what you consider the most important buttons. We'll be asking these questions in the context of changes that are happening to television in the next few years, which we'll explain to you later.</p>
2	Inform participants of format of interview or discussion	<p>I'm not sure if (any of) you have taken part in this sort of research before. So I'll just explain briefly what we hope to do over the next couple of hours.</p> <p>I'm going to be asking a range of questions (or raising a topic), which I'd like you as a group to discuss.</p> <p>My role is really to help make sure that I hear all the different things you have to say (and hear from ALL of you).</p> <p>And there'll be times when I may have to move you on to the next question or topic area. That's because there are a lot of questions we need to cover today, so I apologise in advance if I do have to cut off the discussion. And whilst I don't want to be impolite I may have to interrupt and bring us back to the main topic if we start to drift away from the focus of the discussion.</p> <p>It's important that through our research we hear a wide range of different points of view so please do share ALL your opinions with us.</p> <p>It's very important for you to know that there aren't any right or wrong answers, we are just interested in hearing your views, positive and negative.</p> <p><R2> and <R3> will be observing the discussion and <R2> will keep some notes of the points you raise, and just to remind you we are video and audio recording this session.</p>

3	Warm up & role of TV in participant(s) live(s)	<p>To start, let's talk about TV.</p> <p>How do you (all) feel about TV – in a word, do you LOVE TV, HATE it, or you're not bothered either way about it? (Who'd like to start?)</p> <p>Why is that? How important is it to you?</p> <p>Why do you watch TV?</p> <p>[prompts: How much TV do you watch? When do you watch it?]</p> <p>Do you own your TV(s), or do you rent it (them)?</p> <p>[prompts: How long have you had your TV?]</p> <p>How easy to use do you find your television?</p> <p>[prompts: Is there anything you find difficult about it? Can you tell me about it? How would you say your experience compares to that of (any of) your friends, and family?]</p>
4	Introduction to digital TV	<p>Traditionally, people could only get TV through an aerial. What ways do you know of getting TV today?</p> <p>[You (didn't) mention(ed) digital TV] What do you understand by <i>digital</i> television?</p> <p>What have you heard about it?</p> <p>Have any of you got digital TV?</p> <p>[prompts: what type do you have?]</p> <p>How do you think it is different from what you have [the old system]?</p> <p>[prompts: more channels, interactive services, programme guide...]</p> <p>What [do you enjoy or what do you think you would enjoy] about digital television?</p> <p>SHOW/READ OUT DIGITAL UK CHANNEL BOARD</p> <p>Did you know you could get all these channels with digital TV?</p> <p>What do you think of this?</p> <p>SHOW/READ OUT DIGITAL UK ACCESS & INTERACTIVE SERVICES BOARD</p> <p>[picture quality, audio description, subtitling, red button (e.g. BBC "who do you think you are"), record a series at a press of a button, pause live TV]</p> <p>Did you know you could get all these services and benefits from digital TV?</p> <p>What do you think of them?</p> <p>How do you think the remote control for digital television might be different, if at all from those used with the old type of television?</p> <p>[prompts: Do you think it would be easier or more difficult?]</p> <p>How do you find getting used to new remote controls?</p> <p>[prompts: easy/difficult? Can you give me example(s)]</p>

<p>5</p>	<p>Remote controls: ACTIVITY 1 - Sketching remote controls from memory</p>	<p><i>We're going to spend the majority of this discussion talking about remote controls.</i></p> <p><i>So, how easy to use do you find your TV remote control – the one you use for your main set?</i></p> <p><i>[prompts: Do you use just one for each TV? Button size? Layout? Labels?]</i></p> <p><i>I have an activity for us now. I'd like to go round the room, one at a time, and for each of you to tell me, from memory, what buttons you remember on your (main) television remote control and roughly where they're located on your remote control handset.</i></p> <p><i>I'll draw rectangular outlines on this flip chart, one for each of you, and I'll sketch what you tell me about the buttons on your remote.</i></p> <p><i>Although you may regularly use your remote control, this can be quite a difficult task. If you're finding it difficult, don't worry, just tell me what you do remember.</i></p> <p><i>Who'd like to start?</i></p> <p>For each button:</p> <p>Why do you think you remembered that button?</p> <p>[prompts: Unusual? Familiar? Do you use it a lot?]</p> <p>What else can you tell me about that button?</p> <p>[prompts, note: not too much detail, just to gauge what makes the button memorable:</p> <p>SIZE: How big or small is it? Bigger or smaller than the other buttons? How do you feel about that?</p> <p>SHAPE: What shape is it? Similar or different shape to the other buttons? How do you feel about that?</p> <p>COLOUR: What colour is it? Is it a similar or different colour to the other buttons? How do you feel about the colour?</p> <p>LABEL: What's that button called or labelled on your remote control? Is it a text or symbol label? What do you think about the label? Was it easy/difficult to know what function that button activated? How easy/difficult was it to remember? Where is the label, on the button, or next to it?</p> <p>TEXTURE: How does that button feel? Does it feel similar or different to the other buttons? How do you feel about the texture?]</p>
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6	Remote controls: discussion	<p>Thanks very much for doing that. I just want to check a few things with you now based on what you told me about your different remote controls. And to check that we've covered as many functions that you have used on your remote controls as possible.</p> <p>You [mentioned/didn't mention] the number buttons for changing channels. Do you have any other ways of changing channels on your remote control?</p> <p>[prompts: How? Which method of changing channels do you prefer? Why?]</p> <p>You [mentioned/didn't mention] the volume button(s) for changing volume. How often do you use [this/these] buttons</p> <p>[prompts: What [do they/does it] look like? E.g., rocker/separate buttons]</p> <p>You [mentioned/didn't mention] text. Do you use text services?</p> <p>[prompts: How often do you use text services? What do you use them for? How do you switch them on and off? Is it easy to switch them on and off? What do you think about the way you switch them on and off? How do you think it could be made easier?]</p> <p>You [mentioned/didn't mention] subtitles. Do you use subtitles?</p> <p>[prompts: How often do you use subtitles? How do you switch them on and off? Is it easy to switch them on and off? What do you think about the way you switch them on and off? How do you think it could be made easier? E.g., going through 'text' vs single button]</p> <p>You [mentioned/didn't mention] the standby button. Do you use this button?</p> <p>[prompts: How often do you use standby? (What does it look like?)]</p> <p>You [mentioned/didn't mention] the ('TV/AV') button which switches what you can see on your screen – for example, switching between normal TV broadcasts and what's showing on your video/DVD/STB</p> <p>[prompts: How often do you use standby?]</p> <p>You [mentioned/didn't mention] the mute button which switches off the sound. Do you use this button?</p> <p>[prompts: How often do you use it?]</p> <p>You [mentioned/didn't mention] the colour buttons. Do you use these buttons?</p> <p>[prompts: How often do you use them? What for?]</p>
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7	Remote controls: ACTIVITY 2 – prioritising buttons	<p>We've talked about a lot of different types of remote control buttons, some that you use a lot, and some less so, some not at all. I want us now to try to categorise these buttons you've mentioned.</p> <p>I'd like you to think;</p> <ul style="list-style-type: none"> • which ones you can't live without, • which ones that are nice to have, and • which ones you don't really use or need. <p>I have two sets of cards/post-it notes here with names of different remote control button functions on them. There are a few blanks in here in case you want to add a couple of your own. I also have a large sheet of paper with the categories written on it.</p> <p>Can you split into 2 groups and as a group decide how you would categorise these buttons? We'll have just under 10 minutes to do this</p>

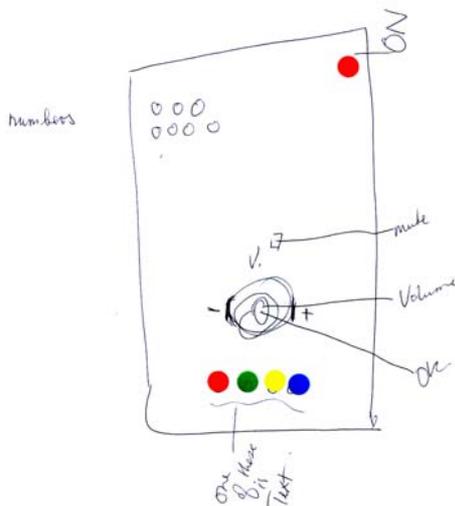
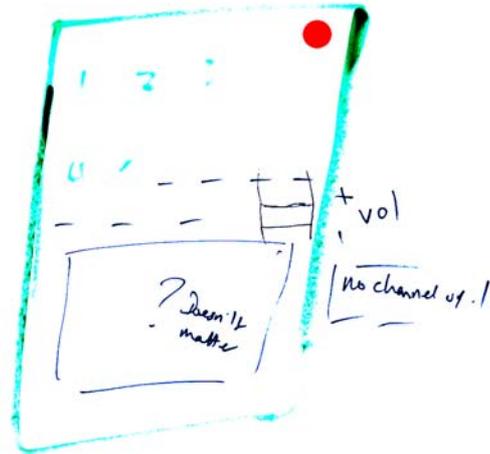
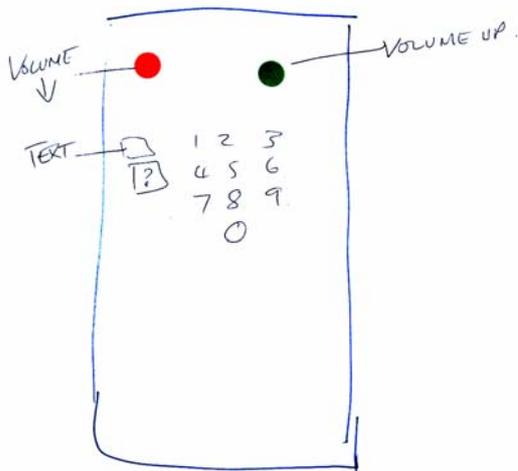
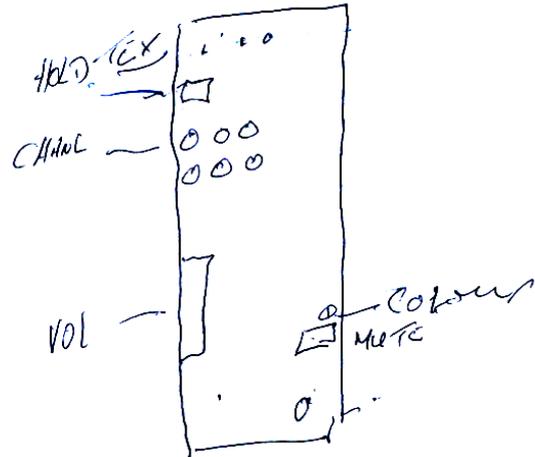
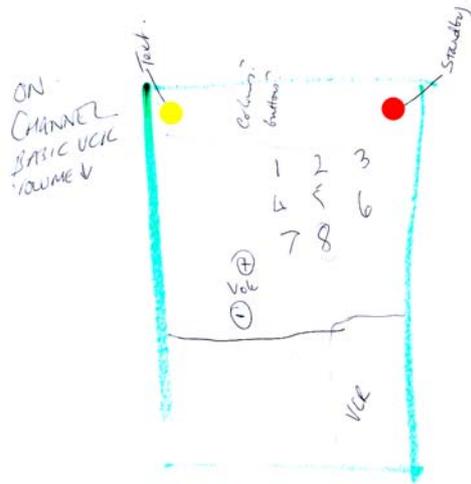
8	Remote controls: ACTIVITY 2 – feedback/ discussion	<p>Thanks for doing that. Now can one person from each group tell me about how you've categorised these buttons. Please tell us why you have put them in the category you have chosen.</p> <p>We'll go through each groups' categorisation first then we can discuss where the two groups have disagreed, if at all. It's very important if you do disagree for us to hear why so please do say if you have a problem with where a button has been categorised.</p>
9	Prompted research aim	<p>We're hoping in this research to find out what buttons are needed for the simplest digital television remote control. We think some people would benefit from a simple, easy to use remote control.</p> <p>Do you think there is a need for a simple remote control? [prompts: can you explain?]</p> <p>We need to know a bit more about who might be interested in a simple remote control and in what contexts or situations people might be more likely to use them.</p>
10	Who benefits?	<p>Thinking about people you know that struggle with all the buttons on a television remote control...</p> <p>...What types of people do you think would benefit from having a simple remote control to use <i>all the time</i> with their digital television equipment? (i.e., you think they'd need to rely on it)</p> <p>...What types of people do you think might want to use it just for a short time, but would still appreciate having it?</p> <p>...Can you think of any particular occasions where people might want to use a simple remote control?</p> <p>[prompts: e.g., non-main set where difficult to see the screen for text services anyway); rarely used TVs; for occasional visits from friend/family member who has difficulty with remote controls]</p>
11	Awareness and benefits	<p>When you get a new TV, do you ever look at the remote control before you buy it?</p> <p>[prompts: what expectations do you have of the remote control that comes with a new TV set? Can you give me any examples?]</p> <p>How would you expect it to find out about a new simple remote control? [prompts: where from?]</p> <p>What do you think would be the best ways of getting people, particularly those who could really benefit from it, to hear that a simple remote control was available if it was to be developed? [prompts: retailer, newspaper – which types? Magazines? Word of mouth, TV;]</p> <p>What do you think people need to be told about it to help them decide whether or not it would be useful to them?</p>

12	Set up	<p>Have you ever bought an additional remote control for your TV, like the Universal remote controls that are available?</p> <p>[prompts: why? Can you tell me about your experience? – Where from? Cost? Set-up experience? Worthwhile? Do you know of anyone else who has done this? What was their experience?]</p> <p>A simple remote control may need to be set-up to work with your existing or new equipment. Do you have any idea about how a remote control would need to be set-up?</p> <p>[prompts: booklet with TV codes, how would you feel about that? Confident? Nervous? Would it put you off buying one?]</p>
13	Marketing approaches	<p>There are two main ways a simple remote control could be sold:</p> <p>(a) by selling it with the product you want to buy. This would be a remote control packaged in addition to the fully functional one that came with the product.</p> <p>(b) Or by buying the simple remote control as a separate purchase.</p> <p>Which of these two options do you think would work best for the people who might like to buy it?</p> <p>[prompts: why is that?]</p> <p>Do you have any other comments, positive or negative, about the availability of a simple remote control?</p>

14	DSO (contextualising related DTV considerations)	<p>We've talked a fair bit about remote controls and what the minimum number of buttons might be for a simple remote control that would work with digital TV. As we're coming to the end of our discussion now, I'd like us to think a little into the future.</p> <p>Have you heard of digital television switchover?</p> <p>[prompts: What have you heard about it? From where? Do you think it will affect you? Have you talked about it with anyone? Who?]</p> <p><i>EXPLANATION OF DSO:</i></p> <p><i>Digital TV switchover is the Government plan to turn all TV services in the UK to digital. This means that the current analogue television system whereby you receive 'ordinary TV' channels (BBC1, BBC2, ITV1, Channel 4/S4C, Five) will be switched off, and all broadcasting will switch to a digital signal. This will replace our ageing network and allow many more people access to Freeview (digital TV through an aerial) than can currently receive it. If you don't yet have digital TV on some or all of your TV sets, you will need to adapt your existing TVs with a digital box, or get new digital TVs. If your sets are not adapted, then you will not be able to watch TV on them after switchover. Also, if you currently use a video recorder to watch one programme whilst you record another on a different channel, you will need to get a digital TV recorder.</i></p> <p>How do you feel about DSO?</p> <p>[prompts: Emotions: agreeable, excited, happy, neutral, concerned, fearful, angry? Why is that? How strongly do you feel what you feel?]</p> <p>And how do you think your feelings compare to the feelings of people you know?</p> <p>[prompts: How is that? Why is that?]</p> <p>There are different ways of getting digital TV, do you know what they are?</p> <p>[prompts: how do you feel about the different ways of getting it?]</p>
15		<p>Thank you for being so helpful today – we really appreciate your time and effort.</p> <p>Is there anything else you would like to add?</p> <p>Thanks and wrap up.</p>

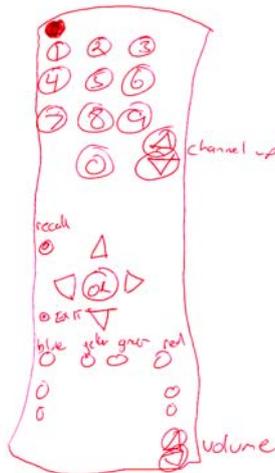
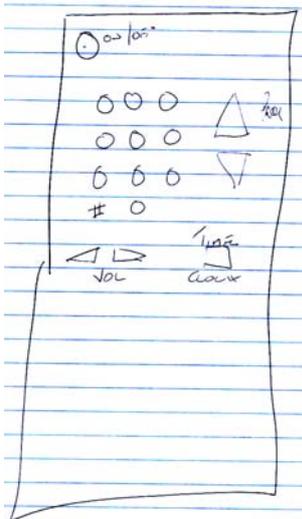
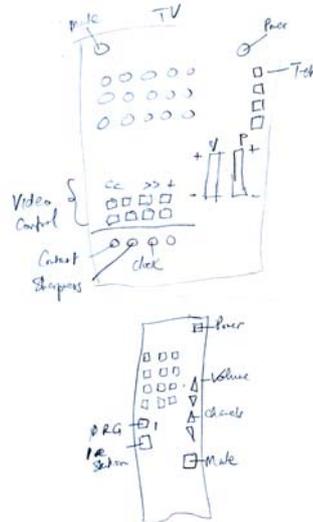
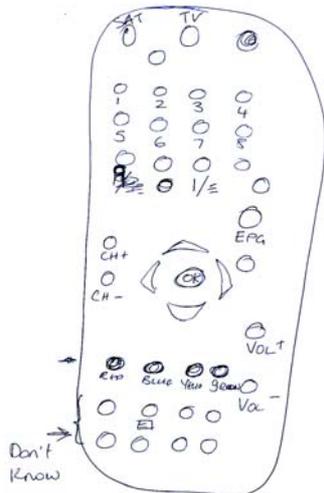
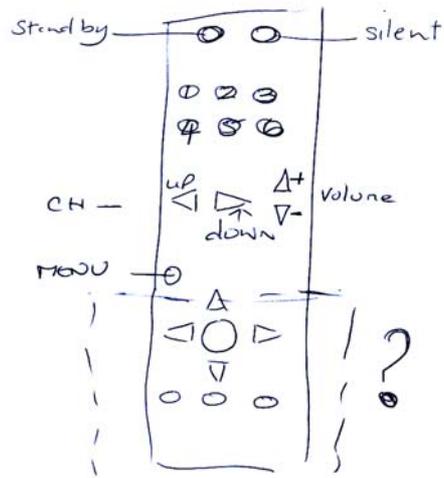
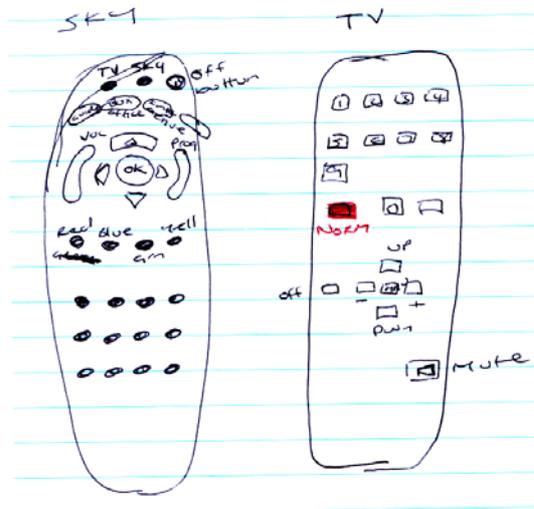
Annex B: Participant sketches of remote controls

Group A: elderly consumers, without digital television, social grade C2DE, aged 65+



Easy to use digital television receivers: remote control buttons and functions used by different types of consumer

Group B: consumers with relatively low confidence with technology (self-reported) and low motivation to the benefits of digital television [identified as never/infrequent users of digital television] social grade ABC1, aged 35-54 with a slight female skew



Easy to use digital television receivers: remote control buttons and functions used by different types of consumer

Group C: younger consumers with relatively low confidence with technology (self-reported), social grade C1C2D, aged 18-34

