



research report

**Exploring how manufacturers, suppliers and retailers
address the needs of older and disabled people:
what are the barriers and drivers?**

prepared for



**Advisory Committee on
Older and Disabled People**

by

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This report is dedicated to the memory of
Professor Janet Askham, former chair of
ACOD's research sub-group.

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Foreword

This report presents the findings of research Ofcom's Advisory Committee on Older and Disabled People (ACOD) commissioned from i2 media research. It was funded by Ofcom, which has a duty to encourage the availability of easily usable apparatus under Section 10 of the Communications Act 2003.

We had a clear purpose in mind: to understand how manufacturers, suppliers and retailers of domestic communications equipment, products and services address the requirements of older and disabled people. The research investigates the efforts that companies make to incorporate universal design and design for usability in their activities.

Findings are based on confidential in-depth interviews with senior figures from the consumer electronics and media products and services supply chain. Sectors sampled included broadcasting, telecommunications and online products and services.

It was important to find out what the barriers are, including limited user research and the commercial considerations of building business cases. More than this, we wanted to know what could be done to address barriers. The people interviewed came up with a range of positive suggestions. These included the need for senior level company leadership to champion the requirements of older and disabled people and use of the power of procurement to encourage design for usability.

But going beyond the views expressed, the research suggests that, unless further encouragement is put in place, the current economic downturn and competing commercial pressures are likely to limit the extent to which industry is able to better address the needs of older and disabled people.

Such encouragement is likely to require a carefully considered, multi-faceted approach. Given the global nature of many parts of the communications industries, and the various standards regimes for different sectors, any intervention needs to be sensitive to this context.

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Barriers and drivers to addressing the needs of older and disabled people

An initial action, and one recommended by ACOD, could be a (voluntary or mandatory) requirement for companies to report the efforts they make towards monitoring and improving their products' and services' accessibility and usability on a regular basis (e.g. annually) to a high-profile independent body with an interest in, or commitment to, improving the situation.

This body could then publish annual progress updates on what companies serving UK consumers are doing to improve access to and usability of domestic electronic communications equipment, products and services. Such an activity would reward companies which had made efforts towards improving the accessibility and usability of their products and services, by showcasing their activities positively, and would shame by omission those companies which had made no such efforts.

I believe that this research will be useful to Ofcom and to industry. That if we can learn from it we can help to deliver real results for everybody. Good design for older and disabled people is good design for all.

Mike Whitlam

Chairman

Ofcom Advisory Committee on Older and Disabled People

Executive summary

1. This paper reports a qualitative research study conducted by i2 media research, commissioned by Ofcom's Advisory Committee on Older and Disabled people (ACOD).
2. The objective of the study was to understand how manufacturers, suppliers and retailers of domestic electronic communications equipment, products and services address the needs of older and disabled people, with a particular focus on understanding the barriers to, and drivers of, industry better addressing these needs.
3. The research is of relevance to Ofcom, given its duty under Section 10 of the Communications Act (2003): "*to encourage others to secure that electronic communications apparatus is developed which is capable of being used with ease, and without modification, by the widest possible range of people, including disabled people*".
4. The research was commissioned by ACOD to fill a gap identified through an audit of research on ease-of-use issues with domestic electronic communications equipment, commissioned by Ofcom and carried out by George and Lennard (2007). The gap the review identified was: research in the public domain to investigate the efforts that companies make to incorporate universal design, and design for usability, within their activities, and how corporate marketing assumptions and methods influence the situation.
5. This current research addresses this gap. The research was qualitative in nature and consisted of a series of 20 confidential in-depth interviews with senior representatives from the consumer electronics and media products and services supply chains. Interviewees represented component manufacturers, equipment manufacturers and brands, retailers, service providers, and legal experts. Sectors sampled included broadcasting, telecommunications and online products and services.
6. Analysis of the interviews supported several of the barriers identified in George and Lennard's review, in addition to identifying many others.
7. The main barriers to industry better addressing the needs of older and disabled people, as revealed by the current research, are:
 - a. Participant companies reported that there was very little user research. Many participants said that their company's main source of consumer insight was their customer service and relationship management systems, their awareness of industry trends, and gut feeling. These sources do not explicitly provide companies with information about the specific needs of older and disabled consumers.
 - b. Some participants reported that their companies had not yet thought about accessibility, or whether their products might be accessible to older and disabled people, while others reported that other parts of the supply chain were barriers.
 - c. Where action was being taken to better address the needs of older and disabled people, this tended to be within larger companies'

corporate social responsibility areas, affecting only some product and service ranges.

- d. Several participants, particularly those from the larger companies, cited their limited ability to influence usability and accessibility considerations, due to the international nature of their companies' design and production activities.
 - e. Participants cited commercial barriers most often; in all the interviews commercial considerations outweighed considerations relating to companies' corporate social responsibilities.
 - f. Nearly all participants referred to difficulties they, or others they worked with, had had in building a compelling business case for products and services that better met the needs of older and disabled consumers. Although many acknowledged that this was partly due to their having insufficient insight into the needs and user experiences of older and disabled people, competing commercial pressures were cited as limiting companies' focus on usability and accessibility.
8. We asked participants to say what would help them to address the needs of older and disabled people, and several themes emerged. These included:
- a. Senior-level leadership that supported addressing the needs of older and disabled people, with the advocate being sufficiently senior within the company, having good connections, influence over the company's product or service development processes, and authority with the rest of the company's senior management team.
 - b. Company-wide access to relevant insight about the needs of older and disabled people generally, and in relation to company products and services specifically. Participants particularly appreciated high quality user research on the needs of older and disabled consumers, published by Ofcom, charities, or government departments.
 - c. Internal systems that generated insight into the needs of older and disabled people. These included a written resource of relevant company knowledge as a formal resource for the company, and internal budgets for user research to provide product- and service-specific information about the needs of older and disabled consumers.
It is worth noting that interviewees from companies with access to these types of information did not report having overcome all of the commercial barriers reported above.
 - d. Financial benefits from meeting the needs of older and disabled people, with the most-cited example being the power of procurement requirements to encourage design for usability.
Consistent with the project's findings on the importance of considering the commercial priorities facing industry, interviewees were most positive about financial incentives to their companies better addressing the needs of older and disabled people.

9. Participants made a range of additional suggestions regarding what could be done to support companies in better addressing the needs of older and disabled people in their product and service development. These included:
- a. More financial incentives. Two ideas were put forward¹. The first was having more demanding requirements to evidence efforts made towards monitoring and improving product and service accessibility and usability, in public and commercial procurement documentation. A second suggestion was an extension of VAT relief to products for the general population that are accessible and usable by older and disabled people – not limiting VAT relief to assistive products.
 - b. More research on the needs of older and disabled people. This is consistent with the finding reported above (7b); that access to good research on the needs of older and disabled people can help companies to address their needs. The availability of such research could be improved both through the continued, or expanded, provision of research by public bodies (such as Ofcom, government departments, charities, and industry representative groups), and through better commercial provision of research on the attitudes, behaviours, values and needs of older and disabled people.
 - c. Most participants suggested voluntary codes of conduct, standards, regulation and legislation. Their preference was for improved co-operation within the industry, and across the supply chain; for example, agreements by retailers to stock accessible equipment. None of the participants actively invited the introduction of new regulatory or legislative requirements, but many acknowledged that the fundamental commercial barriers to addressing the needs of older and disabled people better could remain largely insurmountable without some more formal encouragement. All participants highlighted the importance of ensuring a level playing field for UK companies in a global market.
 - d. Better consumer communications about usability and accessibility, to encourage consumers (i) to expect easier-to-use equipment, (ii) to complain when their expectations are not met, and (iii) to purchase products and services recommended as usable and accessible.
10. The report concludes that concerted efforts, as outlined above, are likely to be necessary to overcome the commercial pressures identified by the research as limiting company's abilities to better address the needs of older and disabled people.

¹ A less-inclusive idea was also suggested by one interviewee, namely that charities representing people with specific disabilities (or Government) could support the availability of assistive product or service add-ons.

1. Introduction

1.1. Background

This paper reports a qualitative research study conducted by i2 media research, commissioned by Ofcom's Advisory Committee on Older and Disabled People. The objective of the study was to understand how manufacturers, suppliers and retailers of domestic electronic communications products and services address the needs of older and disabled people, with a particular focus on understanding the barriers to, and drivers of, industry better addressing these needs.

ACOD commissioned the research to fill a gap identified by an audit of research on the usability of domestic electronic communications equipment, commissioned by Ofcom and carried out by independent consultants. George and Lennard² in 2007. It reported that "in the public domain at least, there does not appear to have been any research to establish whether, or how, corporate marketing assumptions and methods impact on the efforts that companies make to incorporate universal design/usability within their planning, design, engineering and production, and marketing operations. This is an important research gap".

The current research addressed this gap through a series of 20 confidential in-depth interviews with senior representatives from the consumer electronics and media products and services supply chains. Interviewees represented component manufacturers, equipment manufacturers and brands, retailers, service providers, and legal experts. Sectors sampled included broadcasting, telecommunications and online.

1.2. Key findings from Ofcom's 2007 research audit

George and Lennard's research audit for Ofcom on ease-of-use issues with domestic electronic communications equipment:

² Ofcom (2007) Ease of use issues with domestic electronic communications equipment - a research audit by Mike George and Linda Lennard

- discussed the benefits of usability (for consumers, and for industry);
- presented a review of previous research on industry attitudes towards incorporating good practice in design for usability and accessibility; and
- highlighted a range of barriers and challenges to more widespread addressing of usability by the electronics communications industries.

The report ended with a series of independent recommendations to Ofcom for future work.

Of most relevance to the current project was George and Lennard's chapter on industry attitudes towards adopting good practice in design for usability and accessibility. Their review identified a range of observations and inferences that they invoked to explain why there had been relatively little progress by industry to better address usability considerations in product and service design. These included:

- marketing strategies do not put usability at their core, and “can contribute to the sidelining of usability considerations” (page 7);
- when industry responds to prompts from disability organisations, the responses tend to be through specialist (niche) solutions rather than making mainstream products usable and accessible to people with disabilities;
- addressing usability and accessibility is often thought of as a burden (in terms of time and cost) that cannot be justified; and
- industry does not sufficiently acknowledge that usability and accessibility concerns constitute barriers to the adoption of various products and services by some consumers.

The review concluded that independent systematic research was needed to understand how manufacturers, suppliers and retailers of domestic electronic communications products and services incorporate ease of use and accessibility features in their products and services. An additional first question is: does the

industry incorporate such features in its product and service design and development?

1.3. *New primary research – scope*

This study was commissioned to provide new in-depth insight into the barriers to better addressing the needs of older and disabled people, as cited by industry representatives. It also describes solutions that interviewees reported as having worked in their organisations, and details of other solutions suggested by the research participants to further support the development of usable and accessible domestic electronic communications products and services.

It is important to note that the project was not designed to conduct a review of all previous and ongoing activities by companies providing domestic electronic communications equipment, products and services in the UK to support accessibility and usability of their portfolios. To meet the research gap identified by George and Lennard, the project focused primarily on identifying the barriers to such activity, and to such activity being embedded in companies' mainstream operations.

In our conclusions we include suggestions for next steps in furthering this research area.

2. Research objectives and questions

The key objective of this research was to understand the ways in which manufacturers, suppliers and retailers of electronic communications products and services address the needs of older and disabled people. In particular, the research focused on identifying:

- a. what eases, or impedes, the development of electronic communications products and services that are easy to use and accessible to a wide range of consumers; and
- b. characteristics of the structures of organisations which participated in the research where good practice is being, or has been, implemented.

The research addressed a range of more detailed research questions, in order to understand:

- a. How communications technology manufacturers incorporate ease of use features (related both to accessibility and usability) into their products, and at what stage of product and service development are such features incorporated?
- b. What usable and accessible products and services do companies provide, or have they provided in the past? Have individuals or functions in participant companies taken steps to understand the needs of disabled and older customers in order that these needs can be better addressed?
- c. What are the supply-side barriers to companies better addressing these needs? In effect, why do manufacturers, suppliers and retailers of electronic communications products and services not currently develop their products and services with the needs of older and disabled consumers in mind?
- d. Why do some respond with specialist products and services rather than inclusive mainstream models?
- e. Why do some focus on price, function and 'newness', rather than on usability?

3. Method and sample

We conducted face to face, qualitative, in-depth interviews to explore the research questions. To capture the responses of as many participants as possible, in five of the 20 interviews, parts of, or the whole interview took place via the telephone.

3.1. *Sample design and recruitment*

We developed a matrix of target companies as a first step in the project. The companies included equipment manufacturers, retailers, and service providers (including online sales and services), across broadcasting (television and radio) and telecommunications (fixed and mobile telephony, and online services). Invitations to participate were sent to senior staff, responsible for product development, marketing and usability.

Approximately half the participants were at the most senior management levels in the companies sampled (Chief Executive, Chief Operating Officer, Director). These were often, although not exclusively, in the smaller companies. Other participants, mainly those from larger companies, had responsibility for inclusion, accessibility and diversity in their companies and tended to be based either in corporate social responsibility or human resources functions, or in general commercial operations.

We invited participants to take part in the research by email and postal mail. The invitations outlined the purpose of the research, invited participation, and highlighted that all interviews conducted within the project would be treated in complete confidence. Sample invitation letters are included in the Annex to this report.

Within each sample cell, an opportunistic recruitment approach was taken, with

participant companies being contacted either through known contacts of the project researchers, or through telephone and desk research, to identify the correct person to whom to address the invitation to participate in an interview. Because the project was not designed as a review or showcase of positive action with regard to accessibility and usability, no particular effort was made to include all companies who had taken positive steps. If we had done so, we would have risked skewing the study's results towards indicating that there are few, if any, barriers to industry addressing accessibility and usability; companies with large and active corporate social responsibility departments do tend to have good examples to point to, even if these examples are largely historical, or have not trickled down to influence mainstream consumer products.

The table below shows how the sample covered different sectors and parts of the supply chain:

sector		equipment	service providers	retailers
Broadcasting	TV	✓	✓	✓
	Radio	✓		
Telecoms	Fixed	✓		
	Mobile	✓		
Online	Broadband	✓		
	Search	✓		
	E-commerce	✓		
Other	Representative bodies, charities,	✓		

We sent participants a brief outline of the scope of the discussion before their

formal participation. The full discussion guide was shared in advance with participants who requested it.

Each interview lasted between 45 minutes and two hours, with an average interview time of approximately 70 minutes. Fieldwork took place in two phases. An initial phase was conducted in April and May 2008 prior to an interim presentation of the research findings at Ofcom's 2008 usability event (hosted by BT, 4 June 2008). The majority of the project's invitations to participate in the research were either ignored or declined, so to boost participant numbers following the usability event, we conducted a further phase of fieldwork between July and October 2008. In total, we sent over 50 invitations to participate, more than 30 in phase 1, and a further 20 for phase 2.

The invitations to the second phase of fieldwork were re-worded. In the first phase, the invitations informed companies that the interviews would enquire about any research they conducted that involved older and disabled consumers. In the second phase, invitations made it clear that the project was interested in hearing about any consumer research or insight activity they conducted.

Participants in the research represented companies supplying a broad range of products and services, including television equipment and services (remote controls, set-top boxes, televisions, digital video recorders, components, broadcasters), radio equipment and services (receivers, components, broadcasters), the telecommunications industry (fixed line operators, equipment providers, mobile phone network operators, equipment providers, handset manufacturers) and online (broadband provider, online search providers, online retailers).

3.2. Discussion guide – content areas

The following areas were covered during the semi-structured interviews:

Company background and culture (warm up/intro - approximate duration five minutes)

This section of the interview focused on participants' companies':

- corporate culture;
- mission statements;
- policies for diversity, inclusion, social responsibility; and
- the remits of any policies;
 - whether the policies covered employees and colleagues or customers as well; and
 - what types of people they were designed to include, such as older, disabled, MEG (minority ethnic groups), isolated people or people on low incomes.

Understanding of customers (approximate duration five minutes)

This section of the interview focused on how comprehensive an understanding participant companies had of their current and potential customers.

Areas probed included what understanding companies had of their customers':

- lives and needs;
- financial situations;
- living arrangements;
- media preferences, online access and behaviours; and
- lifestyle preferences.

A key goal was to understand the sources of customer insight. Questions included:

- How much research, if any, did participant companies conduct with end-users to understand their customers? If any:
 - was this user research conducted in-house or commissioned externally?
- To what extent does the company rely on:
 - expertise within the company?
 - gut feeling?
 - analysis of product registration forms?
 - formal or informal analysis of customer support activity?
 - commissioned sales tracking data?
- Do participant companies have access to shared data or information about the needs and behaviours of older and disabled people? If not:
 - would they find such information useful?

Product development processes (approximate duration ten minutes)

This section of the interview focused on participant companies' processes for new product development (and/or improvements or product procurement, as relevant). Key questions were:

- Are the service/product development processes documented?
- Are there standard evaluation processes for new product concepts? If so:
 - what is their scope (i.e. what is evaluated and by whom)?

Usability and accessibility (approximate duration 15 minutes)

This part of the discussion guide was the most relevant background section of the interview. It examined the extent to which, and how, product usability and accessibility design considerations are built into participant companies' product design and development processes.

The discussion guide asked:

- Whether companies had development rulebooks or guidelines.
- If there were any case studies of increased market and/or lower product support cost on the basis of best practice processes.
- Whether participant companies conducted any user testing at any stage in their product development process? If so:
 - what types of target users had tested (or experienced or interacted with) product and service prototypes?
 - and at what stage of the development process?
- Whose responsibility, in the participant company, is the consideration of the needs of older people and people with disabilities in relation to usability and accessibility of product and service ranges?
- Are participant companies' product development processes based on (or designed to be consistent with) any national and/or international standards? If so, which ones?
- Are processes compliant with relevant consumer interest legislation?

Barriers and solutions to companies being better able to address the usability and accessibility needs of older and disabled people (approximate duration 15 minutes)

This section examined the most important areas of the current research – what are the main barriers cited by participants to their better addressing the needs of older and disabled people in product or service design and development?

Interviewees were first given the opportunity to respond without prompting, then the interviewers probed some of the most frequently cited reasons:

- Lack of demand?

- Fear of features being off-putting to the mainstream market?
- Component costs?
- Product support costs?
- International issues?

All the responses in this section were examined in detail, to establish that they were not simply 'easy answers' given to speed up the interview.

Finally, participants were asked if they could think of anything that would, or could, encourage their companies to better cater for the needs of older and disabled consumers in their product and service design and development activities.

3.3. How the research results are presented

The following three chapters present the results of this research. Very few participants were able to describe any formal processes within their companies to address the needs of older and disabled people. Where participants did talk about their companies having processes and mechanisms to address these needs, they were usually associated with a specific example of good practice, and were not applied as a general (or standard) rule across their product and service development activities.

As can be seen from 3.2 above, the discussion guide was deliberately comprehensive and gave extensive opportunities for participants to talk about usability and accessibility positively and to give evidence of good practice within their organisations. The inclusion of prompts in the discussion guides is i2's regular procedure, to ensure that relevant scope areas are at least touched upon. Because most of the participants were able to talk about the interview topics, there was no particularly strong reliance on the prompts in this set of interviews.

The structure of the results sections reflects the emphasis and weight of each topic area within the interviews, and demonstrates that the majority of the interviews tended to focus on why accessibility and usability tend not to be core considerations for most companies.

On a positive note, Chapter 4 provides some encouraging examples, discussed by participants, of their companies addressing the needs of older and disabled people. Chapter 5 presents some key features, cited by participants, which enable companies to address the needs of older and disabled people.

The majority of participants reported that their companies did not specifically incorporate ease-of-use features (related to usability or accessibility) into their mainstream products or services via any explicit measures or processes. Chapter 6 describes the reported barriers that prevent companies better addressing the needs of older and disabled people.

Chapter 7 presents participants' suggestions on what else could further support their companies in addressing the needs of older and disabled people.

4. Encouraging examples, but limited mainstream activity

The reader should note that the current project was not designed to be a review of all activities in support of accessibility and usability of their portfolios, by companies providing domestic electronic communications equipment, products and services in the UK. Rather, the project focused on identifying the barriers to such activity, and to such activity being embedded in companies' mainstream operations.

Further, the results presented in this report come directly from the interviews with industry participants. There are, of course, examples of companies providing domestic electronic communications equipment, products and services, which have made efforts in the areas of accessibility and usability, but that are not featured in the report, because the companies were not participants in the research.

The research identified a number of instances where companies had made efforts to better address the needs of older and disabled people in their product and service development. We present two here, one relating to telecommunications, the other to broadcasting.

4.1. *Inclusive design for a cordless 'big-button' phone*

One participant discussed his company's involvement in the development of an online information resource – the *Inclusive Design Toolkit*³. The toolkit was developed with support from the participant's company and from the i-design research project, within the Engineering Design Centre at Cambridge University, with the goal of promoting the adoption of inclusive design. It provides information to product and service designers on what inclusive design is, its

benefits and how to design inclusively. The site includes an exclusion calculator, to help designers understand how many people may be excluded from using their product (dependent on its reliance on vision, hearing, touch, mobility) and 'impairment simulators' to enable designers to understand what their products and services would look and sound like to people with visual or auditory impairments.

Subsequent to the research interview, the project team was informed that inclusive design was in the process of being embedded as standard within the company's product development activities - positioned as 'customer-centric design'. This participant was able to point to a new product designed inclusively and "*tested with people with impairment*" - a new cordless phone, the Freestyle 710 and 750 (with answering machine). The product has recently received a number of positive reviews, as the quote below illustrates.

"The positive feedback we are getting shows the impact of designing inclusively in developing a desirable product for a wide market"

4.2. Government procurement for digital television switchover

Several participants referred to the very positive effects on the usability and accessibility of domestic communications equipment of collaborative activities regarding digital television switchover. These activities have involved government, Ofcom, broadcasters, manufacturers, representative industry groups, and groups and charities representing older and disabled consumers.

Participants referred to the availability of up-to-date, high quality research among

³ www.inclusivedesigntoolkit.com

consumers generally, and older and disabled consumers in particular, on their needs and expectations of digital television equipment. Several indicated that the wide dissemination of this information via industry groups had supported the gradual adoption of usability improvements over recent years, for example in relation to digital television remote controls.

“...Identifying specific areas of customer difficulty is another good one where the work that is carried out is actually very good at identifying things that people find difficult, for example, the remote control... It's things like that ... and then presenting those results in a manner which wasn't confrontational...”

The Core Receiver Requirements for equipment supplied within the Switchover Help Scheme developed in advance of the government procurement process for the scheme, were also cited as supporting improvements in usability. The requirements were based on the Digital Television Group's D-Book Chapter 22/25 recommendations, and on related reports from the Consumer Expert Group and Ofcom. Participants said that procurement activities for switchover had encouraged the availability of digital terrestrial television receiver equipment with audio description, more usable remote control designs, and more accessible on-screen interfaces.

4.3. Positive steps relate to limited product and service ranges

Most of the instances cited where companies had actively addressed the needs of older and disabled consumers tended to be one-off initiatives. These were prompted by a range of factors, including contact with and lobbying by groups

and charities representing the interests of older and disabled people, and procurement activities that required tenders to consider accessibility and usability.

Further to this finding, and reflecting the rationale for conducting the current research, no interviewee indicated that their company had a strong appetite for making all its products and services better address the needs of older and disabled consumers.

There are several reasons for this lack of appetite, which are discussed further in Chapter 6. They include cost and timing considerations, and concerns that products and services that better meet the needs of older and disabled consumers may be off-putting to the (larger) mainstream market. These two findings are perhaps not surprising in the context of difficulties some participants discussed in relation to the marketing of products that better meet the needs of older and disabled consumers.

5. Participants' views of what works at present

Participants who reported that their organisations had internal processes designed to address the needs of older and disabled consumers tended to describe a range of characteristics. These included:

- Senior leadership that supports addressing the needs of older and disabled people;
- Company-wide access to insights into the needs of older and disabled people generally;
- Access to product- or service-specific insights into the needs of existing older and disabled customers;
- Financial benefits to meeting the needs of older and disabled people, or costs arising from products and services not meeting their needs.

5.1. Senior level leadership and support

A senior (usually Board level) advocate, with a clear responsibility to promote the importance of trying to meet the needs of older and disabled consumers, was reported in several of the interviews as a factor supporting a company's ability to address these needs.

"[meeting the needs of disabled people] only happens when you have all the pieces of the jigsaw coming together, but of course you need leadership"

Additional considerations cited by our interviewees were that the advocate needs to be influential within the company, having good connections with the company's product or service development processes, and with the rest of the company's senior management team.

“At the end of the day it’s the service provider’s responsibility – because it’s our customers, and we can have discussions with the manufacturers to say this is what we’re being asked by our customers. But my fear would be that our procurement people would ask their procurement people, and they’d say ‘no’ and that would be it – end of. But if it was from the top of our organisation, to someone at the top of our manufacturers’ organisation saying ‘come on, we’re committed to doing something about this’...[more positive action likely] ”

5.2. Insight into needs of older and disabled people

Several interviewees suggested that information about the needs of older and disabled people in relation to their sector (e.g., equipment needs, information needs, desired functionalities) would be (or had been) useful in helping their company better address such needs. Some suggested this without prompting, and a majority responded positively when questioned directly about the value of such information.

Interviewees cited various means of obtaining access to such information::

- a. existing interaction with stakeholders, ranging from intermittent small-scale consultative groups with disabled customers through to more involved partnerships with organisations representing the interests of people with disabilities, and

- b. publications by public bodies (such as Ofcom, charities, and government departments) containing high quality user research on the needs of older and disabled consumers.

When presented with suggestions of what could help with improving the usability and accessibility of their companies' products and services, some participants reported they would be open to hearing more.

“That’s what is quite interesting about [research report], because we’d quite happily revisit [our development plans] if for example something came out of the report where you’d actually think this is a different route in”

5.3. Mechanisms for sharing company knowledge

Even in companies with substantial pre-interview knowledge, strong awareness of usability and accessibility issues and a good track record of considering the issues, the interviewees suggested that there would be value in writing down the company knowledge as a formal resource for the company as a whole, and to ensure knowledge was not lost over time (e.g., with staff turnover).

“Part of my mission is to try and write it all down [whilst at company], and indeed so far I’ve only got part way through a monograph which is supposed to be everything I know about it [usability and accessibility], and I have as an objective making sure that there is embodied in some people some of what I understand.”

Participants whose companies rely on customer service (or customer relationship management) systems for feedback saw value in their systems being able to alert them when an issue was affecting older and disabled people.

“If there’s a problem then we’ll hear about it. But if there isn’t, it’s like all business, then we take it as a success.”

Some interviewees said it was important to have budgets for user research with older and disabled people, to provide product- and service- specific information about the needs of these groups.

It is worth noting, however, that interviewees from companies with access to this type of information did not report having overcome all of the commercial barriers reported above.

5.4. Contribution to the bottom line

A number of participants reported that their companies had been involved in product and service development activities to address the needs of older and disabled people specifically because procurement documentation specified this as a requirement. Several participants drew a parallel with energy efficiency developments, which presented as a cost initially but then became an opportunity - and then a requirement - because energy efficiency is included in many retailers’ and public procurement documents.

“Government says procurement is the new way forward for accessibility... Documents should ask for more detailed descriptions

*of what companies do... how much
customer research have you done, what
are your actual monitoring statistics?"*

Consistent with the project's findings on the importance of considering the commercial pressures facing industry, interviewees were most positive about financial incentives to enable them to better meet the needs of older and disabled people.

6. Barriers to addressing the needs of older and disabled people

6.1. Generally limited user research

The research interviews revealed that the individual companies carry out very little research to understand consumers' general needs for usability and accessibility, and even less to understand the specific needs of older or disabled people.

"I suppose in that area having been in the industry of consumer electronics for over 30 years we would profess to have what we call 'experience' but that is, or has certainly been up until the last two years, been based very much on an experience of being in the market place and probably gaining knowledge from either ourselves handling products and developing products through good practice just being developed over years, it wouldn't have been through any structured, mass analysis of the direct end user it would just be through experience of working with probably also equipment manufacturers who hopefully also had some knowledge"

Research participants from some of the larger companies did talk about their organisations' substantial consumer research functions. These tended to be predominantly market research-focused, and interestingly, participants were rarely able to refer to usability or accessibility research in any detail. Furthermore, most were unaware of research specifically focused on the needs of

older and disabled people. One participant, referring to their company's active market research function, indicated that dedicated research is not conducted into the needs of older and disabled people:

“we don't actually run any specific research amongst our older or disabled customers, but we do and have spoken to them as part of what we do”

One reason repeatedly given for the lack of user research was that technical issues took higher priority, to get products and services working. Usability and accessibility were referred to as secondary priorities.

“we're missing the fine detail... the level of information is too fine as we're sorting out the real serious issues”

In some of the instances, where interviewees did report that user research was conducted, it often involved colleagues or friends and family. Reasons cited for this type of small-scale recruitment were pragmatic (ease of access to people to test the product or service) or related to concerns about confidentiality (and not wanting to leak the development of new products or services ahead of launch).

“To try out a product [we have developed] we will usually send it out to people within the business, but not to people from the same department/ product group. So it could be anyone in the company, someone in the warehouse. And on occasion to customers who have to sign confidentiality agreements – so again it

tends to be people we know, friends and family for example. ”

6.2. Key role for customer service systems

For insight on customer reaction to existing products and services, the majority of companies most regularly relied on monitoring complaints or issues recorded in their customer service or customer relationship management systems. These systems do not characterise customers in sufficient detail to enable a company to notice, or record, if any types of complaints or queries are mainly from older or disabled people. If they are reliant on such a system, companies cannot capture information about the specific needs of older and disabled consumers. As the quote below shows, participants from even relatively small companies reported spending time analysing their consumer-facing activities.

“Well probably one of the few formal structures we do have in place in that area is an analysis of where we are selling to the end user – why are we getting returns, what would be a breakdown of the reasons for returns? We do evaluate that quite closely. For example, we do get questions back about this product [product type]... and it can be a valid point”

Several participants were keen to clarify that they understood the issues of usability and accessibility, appreciated their importance, and were not operating with the deliberate goal of making products difficult to use.

“we don’t set out to make things as difficult to use as we can”

6.3. Reliance on gut feeling and expertise

In several instances participants indicated that their experience in, and knowledge about, the sector(s) in which they were active meant that they (and not their customers) were best able to judge what features different products and services could best meet consumer needs.

“if we always did what the consumer wants, we wouldn’t move forward at all”

“It would have been partly gut feel and I think also not having access or a relationship with let’s say a [charity group] or people involved in these charity groups through which you maybe become aware of the commercial opportunities.”

6.4. Accessibility not previously considered, or others’ responsibility

A minority of participants, mainly representing smaller companies, indicated that they had not thought in any detail about the accessibility of their products to older and disabled people, at least in part because they did not identify older or disabled people as their target consumers.

Participants from companies which had invested in trying to address the needs of older and disabled people said that commercial limitations prevented this from becoming a general strategy. We discuss commercial barriers to better addressing the needs of older and disabled consumers below, but note here that

several participants claimed that others in the supply chain were barriers. For example, interviewees from manufacturing companies said that they had experienced (or were expecting) inconsistent support from retailers for the marketing of more accessible consumer electronics products.

6.5. *International design and production*

Interviewees from large, multi-national companies cited as a barrier that products for the UK (and European) markets are often designed outside the UK, even outside Europe. While there are, of course, older and disabled people living in other countries, participants from such companies described the difficulty of influencing processes that take place overseas. In such companies, internal processes can be too time-consuming and convoluted for UK representatives to have a substantial impact on the usability or accessibility of product designs. However, the same participants reported that legal, regulatory and standards requirements for the UK and European markets are being met by their companies.

It is also important to note that some branded consumer electronics products sold in the UK are fairly standard products, manufactured in the Far East, with branding added as a last step prior to packaging and marketing in the UK. Such brands have little direct ability to influence a product's design through any standard user-centred design approach.

6.6. *Commercial considerations most often cited, and prioritised*

The most commonly cited barriers related to commercial considerations. There was a tendency for participants to report, or imply, that there were more lucrative markets for their companies to target than older and disabled people.

“But I think our experience told us that in a straight retail product for instance, it would be difficult to commercially put a product out there that would sell. I think we just thought the market wasn't big enough”

In some of the interviews, this view was challenged explicitly by the interviewer(s) with reference to regularly-used arguments that the UK population is ageing, and that there is more accrued wealth in older households. Such challenges did not change participants' responses; perhaps because of the respondents' difficulty in evidencing a business case for orienting their companies' focus towards the needs of older and disabled people.

As mentioned above, participants said that their companies were responsive to volumes of traffic about various issues, captured via their customer service or customer relationship management systems. If such systems were able to reveal the demographic characteristics of people who complained or raised queries, this could offer a mechanism by which companies could at least become more aware of the needs of older and disabled people. Ofcom's latest *Consumer Experience* research⁴ (2008) provides an interesting contribution in this regard. It reported that 'engaged' consumers (those most likely to be confident with technology and early adopters) are those most likely to complain about a communications service. 'Engaged' consumers tended to be younger and more confident with technology. This suggests that even if mechanisms were in place to capture volumes of queries or complaints from consumers, split by whether they were older and disabled, it could still remain difficult to evidence a business need or case to better address their needs.

Many participants in the research were sympathetic to the needs of older and disabled consumers, and were able to appreciate that aspects of their companies'

product or service offerings could better meet the needs of older and disabled consumers. However, time and again, interviewees stressed that product development and marketing strategies that contributed to profits (or breaking even) outweighed considerations relating to corporate social responsibility.

Several of the participants suggested that good usability, supporting good user experiences, featured strongly in high-end consumer electronic equipment. However, even these acknowledged that the importance of usability as a consideration was more limited for lower-end products and services, as shown by the somewhat tongue-in-cheek quote from one participant, highlighting the importance of targeting low price points.

“at the lower end, three things matter: the price you pay, the retail price, and the price”

6.7. Difficulties building the business case

Several participants reported that it is difficult to build a compelling business case for the development of products and services that better address the needs of older and disabled consumers. This is consistent with the finding (reported above) of limited user research, and almost no research on the specific needs of older and disabled people. Interviewees indicated that the development of a compelling business case to address the needs of older and disabled consumers is more difficult in the absence of:

- a. an understanding of their needs,
- b. an accurate estimate of the cost of modifying or improving existing products and services to better meet these needs,
- c. quantification of the target market's size,

⁴ The Consumer Experience - Research Report 08 www.ofcom.org.uk/research/tce/ce08/research.pdf

- d. regulatory or legal leverage, and/or senior support internally.

6.8. Usability and accessibility are evolving targets

Participants representing consumer electronics manufacturers described usability and accessibility considerations as moving, and evolving, targets. They described how, in the context of constant innovation, the initial focus needs to be on getting a product or service to work. Often in the consumer communications sphere, this process is complicated as it involves collaboration with several stakeholder organisations.

These participants reflected that usability issues really only materialise once products and services are in the hands of consumers, in everyday use, and that where such issues do materialise, industry responds.

As reported above (6.2), a threshold number of consumers must complain or query a specific issue, before companies can justify addressing the problem.

One participant mentioned product evolution, reflecting on improvements in the usability of remote controls and user interface design for digital television receivers in recent years.

“And sometimes we don’t always get things to the ultimate levels. I’ve also said that usability is one of these things which is constantly evolving and we’re constantly given new challenges”

6.9. Lack of time and money are limiting factors

“... the retailers are not saying ‘we must have this feature, and by the way we will

*take on board the cost-up for that feature'.
It isn't happening, they're beating us
around the ears to get prices down..."*

Again, while they recognised that their companies' products and services insufficiently addressed older and disabled users' needs, participants listed a range of commercial considerations which are generally given greater weight in product and service development decisions.

These were primarily focused on competitive pressures, from retailers and consumers, to deliver products at as low a cost as possible, and in the shortest possible timeframes. The majority of the participants raised both these points. The testing of product and service concepts, prototypes and interfaces was repeatedly referred to as time-consuming and costly.

Several participants also voiced concerns that products and services that better meet the needs of older and disabled consumers could be off-putting to the (larger) mainstream market.

7. Participants' views of what else could help

Participants suggested a range of additional levers that could support companies in better addressing the needs of older and disabled people in their product and service development.

7.1. *More financial levers*

One idea was based on having more demanding requirements in the public and commercial procurement process, for companies to evidence efforts made towards monitoring and improving product and service accessibility and usability.

Another suggestion was an extension of VAT relief to products for the general population that are accessible and usable by older and disabled people – not limiting VAT relief to assistive products.

“UK VAT law ... is quite unhelpful in terms of encouraging companies to design inclusively, rather than developing niche products”

A less-inclusive idea was suggested by one interviewee; that charities representing people with specific disabilities (or the government) could support the availability of assistive product or service add-ons.

7.2. *Improved research provision*

Participants who had tried to source primary research focused on the needs of older and disabled consumers suggested that such research usually required longer timescales than did primary market or consumer research with the general

population.

Participants suggested that improved availability of research on the needs of older and disabled people would be useful in helping companies to understand their needs.

The availability of such research could be improved both by the continued, and potentially expanded, provision of research by public bodies (such as Ofcom, government departments, charities and industry representative groups), and through better commercial availability of research into the attitudes, values and needs of older and disabled people.

7.3. Improved stakeholder cooperation

Our research revealed clear scope for improved cooperation, both within the industry (across the supply chain), and between industry and charities, and other groups representing the interests of older and disabled people. Participants suggested that this would help to increase the extent to which industry could address the needs of older and disabled people. Examples included agreements by retailers to stock accessible equipment developed by manufacturers.

While none of the participants actively invited the introduction of new regulatory or legislative requirements, many indicated that the fundamental commercial barriers to better addressing the needs of older and disabled people could remain largely insurmountable without more formal leverage. All highlighted the importance of ensuring a 'level playing field' for UK companies in a global market, and some participants argued strongly against any regulation.

7.4. Better consumer communications

Several of the interviewees said that consumers do not have sufficiently high expectations of the usability and accessibility of media products and services; in effect, consumers rarely complain to companies about product and service ease of use. This observation is linked to the need for companies to be able to justify commercially the development of more usable and accessible products and services; for example, on the basis of customer complaints or 'no fault found' returns.

Nearly all the interviewees indicated that their companies try to respond to customer complaints. If consumers were encouraged to complain about usability and accessibility barriers, this could in response encourage more usable and accessible designs.

One interviewee suggested that it is only when consumers are more familiar with a product, or product group, that they are able to make comparisons between products on the basis of usability:

"It's probably the second or third attempt at buying a product where you'll then start to think about how easy it is to operate it and some of the difficulties with usability"

Encouraging consumers to consider the usability and accessibility of products and services before they purchase them could support the availability of products that meet the needs of older and disabled people. A key consideration is how to market accessible and usable products.

Participants discussed a range of marketing-related themes, including the need to consider carefully how best to market accessible products and services.

“Well to sell something, you’ve got to have a slick name”

It might be useful, when marketing accessibility, to adopt an approach that encouraged the market as a whole to view the purchase of accessible products as an ethical choice – in a similar way that organic food has been promoted as desirable to the general population on the grounds of sustainability.

8. Conclusions

The current research has presented several insights, cited and discussed by interviewees from industry, relating to the barriers they perceive and experience as hampering their ability to better address the needs of older and disabled people. It has heard several suggestions of what helps companies to better address usability and accessibility, and further ideas that could improve the situation.

8.1. Changes to the status quo unlikely without encouragement

Regardless of how motivated and supportive of a drive towards improved usability and accessibility any company might be, nearly all the research interviews conducted in this project suggested that changes to the status quo are unlikely without some form of encouragement. The most often-cited barriers to industry better addressing the needs of older and disabled people related to commercial considerations.

It is of course important to note, as described in Chapter 4, that some companies are undertaking positive activities, including some of the companies interviewed for the project and others who did not participate in this research, to support more accessible and usable communications products and services. However, a general theme, arising implicitly or explicitly in nearly all the interviews, was that substantial improvements to accessibility and usability are unlikely to affect the majority of mainstream products and services in the short term. The simple reason cited for this is well-described in the following quote:

“In my experience, people only do things if they want to, or if they have to”

If companies do not believe they will benefit financially from addressing the needs of older and disabled people (the main factor that would make a company 'want to' do so), and if there is no external requirement or incentive for them to do so (the 'have to'), there is little reason to envisage a change to the status quo.

8.2. Care needed, given international operating context

The improved availability of more usable and accessible media products and services is likely to require a carefully considered approach, using multiple levers.

“... if you can present a decent business case any CEO is going to get it. And you can use any trigger... it could be legal, reputational risk, it might be customer driven and it might be money”

However, given the global nature of many parts of the communications industries, and the various standards regimes for different sectors, any action would need to be sensitive to this context.

“so whilst people might consider that legislation is ok if it's fairly applied to everybody - I think lots of people use the term level playing field - then we end up with a situation where people wrongly feel comforted by the idea that the legislation will probably work. But the environment we're working in is so dynamic, it changes so fast, so radically, that we are as an industry desperately suspicious and would

want to avoid legislation even if it looked as though it was going to give us some sort of advantage over I don't know, cheap commodity products that were bought in from the Far East or something like that. We found by experience it's not a great idea to try and create this type of protectionist idea"

8.3. Need for better co-operation between industry and stakeholders

One recurring theme we observed in our interviews was a tendency for participants to be wary of the themes of the interview. One aspect of this wariness related to previous negative experiences of having been lobbied or pressurised rather than being approached to work cooperatively on finding solutions to improve usability and accessibility.

"Well yes we do [feel defensive] cause I think we saw the other day how we can get openly attacked and it's very difficult for companies to sort of say, "no, you know, I'm sorry we can't do that for commercial reasons" especially when being asked for something "that's not very significant" and asking us to make adjustments to a product that may have been designed across the other side of the world. And some of these small things that people ask us to do are really quite

difficult for us, being the industry”

The above quote, whose theme was reflected in more than one interview, demonstrates the importance of continued collaborative efforts across industry, government, regulators, charities and other representative groups to better address the needs of older and disabled consumers.

“We’re not trying to reinvent the wheel but the more this stuff gets talked about the better, and I think a small [discussion] group if we were to invite, various ... [organisations] – ‘Well come tell us about your problems. OK those are the serious problems what are the not so serious problems? Show us some example of products you’ve found difficult’ and a Chatham House rules type environment and then we can say ‘Is there anything we can do?’”

9. Acknowledgements

The authors are grateful to all participants in this research, individuals and companies, who were generous with their time and reflected thoughtfully on the research questions posed in the interviews, and for the valuable inputs throughout the project from Ofcom and ACOD, who commissioned this research.

Annex: Research materials

Invitation text for Phase 1

Dear <name>,

I am writing to you to request your participation in an important piece of research my team and I are conducting for Ofcom's Advisory Committee on Older and Disabled people. Over the coming weeks we will be interviewing senior professionals working across the consumer electronics and media industries, to understand how industry addresses the needs of older and disabled people.

We are keen to understand:

- how the needs of older and disabled people are addressed in <company>'s product and service development and delivery,
- the barriers or difficulties <company> experiences or has had to overcome in order to address such needs, and
- whether <company> has any examples of good practice (and success stories) in developing products and services to address the needs of older and disabled people?

The core focus of this research is to understand whether any practical steps could help <company>/the industry as a whole overcome barriers to better addressing the needs of older and disabled people.

We are assuring all companies who we are inviting to participate in the research that participation will be kept completely CONFIDENTIAL. We will not be making Ofcom or ACOD (as the research funders) aware of which companies from our target list participate in the research. So, whilst we plan to publish the results of the research in collaboration with Ofcom and ACOD, any publication will not identify participant companies, unless the participant companies themselves request to be identified; for example, to highlight a good news story.

We are planning to conduct as many of the interviews as possible by the end of week 21, and so currently have slots to take part in the interviews in weeks 18-21

I hope you are able to take part in the research, either in London (at <company>'s

offices, Goldsmiths, or another venue of your preference), or on the phone. If so, please let me know your preferred date.

I look forward to hearing from you.

Best Regards, Jonathan

Invitation text for Phase 2

Research for Ofcom's Advisory Committee on Older and Disabled people

Dear <name>,

Request for <company>'s confidential participation

I am writing to you to request your participation in an important piece of research my team and I are conducting for Ofcom's Advisory Committee on Older and Disabled people.

We are currently interviewing senior professionals working across the consumer electronics and media industries and supply chains, to understand how industry addresses the needs of older and disabled people.

We are interested to hear about:

- any consumer research and insight activities that are conducted by <company> (e.g., qualitative, quantitative or user research, monitoring of customer feedback), and how insights from these activities influence your procurement policies and service development,
- if and how the needs of older and disabled people are researched in the above context, and addressed in <company>'s procurement policies (especially in relation to consumers electronics products and services) and service development and delivery,
- the barriers or difficulties <company> experiences or has had to overcome in order to address such needs, and
- whether <company> has any examples of good practice (and success stories) in developing procurement policies and services to address the needs of older and disabled people?

The core focus of this research is to understand whether any practical steps could help

<company> and the industry as a whole to overcome barriers to better addressing the needs of older and disabled people.

Confidentiality

We are assuring all companies who we are inviting to participate in the research that participation will be kept completely CONFIDENTIAL. We will not be making Ofcom or ACOD (as the research funders) aware of which companies from our target list participate in the research. So, whilst we plan to publish the results of the research in collaboration with Ofcom and ACOD, any publication will not identify participant companies, unless the participant companies themselves request to be identified; for example, to highlight a good news story.

Next step

We currently have slots to take part in the interviews in the following weeks:

w/c ...

I hope you are able to take part in the research, either at your offices, here at Goldsmiths, or another venue of your preference, or over the phone. If so, please let me know your preferred date from the options above, or any other date (if none of the above are convenient).

I have addressed this invitation to you because of your role as <role> at <company>. If you are not the best person at <company> to take part in this interview, please could you pass the invitation to an appropriate contact in your organisation, asking that they make contact with me to discuss their participation in the research and arrange a convenient appointment? I can be contacted by email (J.Freeman@gold.ac.uk) or telephone (020 7919 7884).

I have provided a little more detail about the research below, and I look forward to hearing from you.

Best Regards,

Jonathan Freeman

Managing Director, i2 media research limited

The research is for Ofcom's ACOD (Advisory Committee on Older and Disabled people) whose Mission Statement reads:

To represent within Ofcom the interests of older and disabled people on broadcasting, telecommunications and spectrum issues, to ensure that Ofcom's policies and practices take into consideration views expressed by older and disabled citizens and consumers.

More info on ACOD is here:

http://www.ofcom.org.uk/about/csg/adv_cmmt_older_disabled/

ACOD initiated the current research to meet a research gap identified by an independent research review conducted for Ofcom in 2007, available online:

<http://www.ofcom.org.uk/research/tv/reports/easeofuse>

The focus of the current research is to understand how a range of manufacturers, suppliers, service providers and retailers address the needs of older and disabled people; what types of good practice are being implemented; and what eases or impedes development of products and services that address the needs of older and disabled people.