CONSUMER PANEL

Ofcom
OFFICE OF COMMUNICATIONS

Older people and communications technology

An attitudinal study into older people and their engagement with communications technology

July 2006

Contents

This report can be found on the publications page of the Consumer Panel website (www.ofcomconsumerpanel.org.uk). The Foreword and the Executive Summary are also available on the website in Welsh.

It can be provided in alternative formats on request.

Foreword from the Ofcom Consumer Panel

Why do so many older consumers seem reluctant to use the internet and other new communications technologies? What can be done to encourage older people to overcome the real or perceived obstacles that stand in their way?

The Panel's survey, *Consumers and the communications market: 2006*[1], reveals that age remains one of the most significant factors influencing whether or not people engage with the communications markets. It highlights the higher levels of older people who say they do not want or have no need for many communications services. This is particularly noticeable in the take-up of the internet where 56% of people aged 65+ voluntarily excluded themselves compared to the national average of 22%. The survey also reveals that ownership of digital television (DTV) for people aged 65 and over is 20% below the UK average. Overall, people's engagement with technology begins to decline significantly after the age of 55.

We are concerned about these findings and so commissioned this 'attitudinal' research, focusing on DTV and the internet. This is our first step towards understanding what are the *enablers* for older people who engage with communications technologies and what are the *barriers* for those who do not.

The research explores the proposition that there is no single answer as to why some people are connected to the internet and others are not. But one significant finding is that attitude and character are the key determinants of whether or not people are connected to the internet - rather than health, age or income. The influence of these other determinants, such as cost, on the levels of connectivity does however merit further attention.

The research suggests that the group of people who are 'digitally disengaged', if given appropriate support and assistance, could have the opportunity to overcome their concerns and fears and benefit from PC / internet usage. Examples of support that would seem particularly welcome for this group include courses designed for and run by older people and a mentoring scheme.

The Consumer Panel is also interested in the group that are fully 'digitally engaged' – the 'absorbers'. They are primarily connected as a result of their experience in the workplace and we want to understand what happens to this group over time. Will people remain engaged and continue naturally to absorb new technologies or, will a number of people start to disengage from new developments in the communications market as time goes on? It is important to understand this proposition in order to determine whether the present digital divide will naturally close as many people contend or whether it will continue. We will be undertaking further work to explore what might happen and what might be done about it.

The Panel takes older people's connectivity seriously because today's communications world is not only evolving very rapidly but is increasingly important to people's ability to relate to each other and to the world at large. What were once separate sectors are converging. With more and more businesses and services of both central and local government going on-line, those who are not connected will find themselves increasingly excluded. Over the coming year the Panel will work with policy makers and the communications industry to understand these issues and how to tackle them, starting with the hosting of a workshop on this topic in early July 2006.

---

[1] http://www.ofcomconsumerpanel.org.uk/publications/consumer_panel_report06.pdf

Executive Summary

Methodology

1.1 Based on results from *Consumers and the communications market: 2006*, an initial segmentation was developed in order to conduct this qualitative research. The target age group (55+) was divided into the following 3 segments:

- **'Digitally disengaged'** - May have mobile phone and digital television, but not internet access nor 'into' technology

- **'Late adopters'** - May have mobile and digital television, have internet access (dial up), 'mid-range' attitude to technology

- **'Embracers'** - Have mobile, may have digital television, have broadband internet, 'high interest' in technology

Digital television and the internet were seen as very different

1.2 Digital television (DTV) among this older age group was generally seen as mainstream and accessible, whereas the internet was much more polarising. There did not appear to be any correlation between internet ownership and digital television ownership.

Voluntary exclusion from digital television was due to lack of perceived need rather than technical or economic reasons

1.3 Awareness of DTV was widespread and DTV was used by roughly three-quarters of the sample. The perceived benefits of more channels and higher picture quality were well known but were not seen as motivating to the one-quarter of the sample that chose to exclude themselves from DTV. This part of the sample seemed happy enough with their current set up.

The digital switchover was a source of anxiety for many digital television users and non-users

1.4 The majority were aware of the digital switchover but the timing and the implications for this age group were not clear. Continued communication on this matter would appear to be important for this audience, especially for non-DTV consumers in relation to the action they need to take and the potential costs involved.

Attitudes towards internet access were more complex and varied than anticipated and it was necessary to revise our initial segmentation of older people

1.5   Motivations and attitudes towards the internet differed more widely than was hypothesised in our initial segmentation and the findings indicate this older age group would be more accurately represented by 4 segments, two current user types and two non-user types:

- Current users: **'Absorbers'** and **'Self Starters'**

- Non-users: **'Rejecters'** and **'Disengaged'**

The 'Absorbers' had been obliged to learn computers at work and were now part of the digital age

1.6   A key determinant of internet take up at home was prior experience at work. All those who had learnt at work were now home users. Rational and functional in their attitudes towards technology, they easily absorbed technology products and services into their lives. Essentially, this segment was now a part of the technology generation and is digitally included.

The 'Self Starters' who had no training at work and had learnt themselves were very diverse in terms of age, socio economic grade and health

1.7   This segment was sufficiently motivated to educate themselves and levels of competence varied considerably in this group. Reasons to get started varied from the specific – a need to communicate with family - to the more general - a desire to stay in touch and keep up to date.

1.8   The diversity of this segment demonstrated that factors such as age, income, location and health did not appear to be barriers to take-up. Attitude and character were the key determinants of take-up more than any other factor.

1.9   Recent and ongoing learning experiences meant this segment provided a rich insight into the difficulties faced by older people when learning PC / internet skills.

One of the key findings from this research was that non-users were not all 'rejecters' of the internet as previous surveys suggested. Instead, the majority of non-users in the sample turned out to be interested in using the internet given the right set of circumstances

1.10   Non users were largely consistent in the reasons they gave for non take-up – lack of skills, ability and motivation, as well as a number of social and environmental reasons were mentioned as potential barriers to involvement. In short, many were simply afraid – afraid of the unknown, of their ability, of breaking the PC, of appearing foolish, etc.

1.11   Whilst all these non-users appeared initially to voluntarily exclude themselves from internet usage, it was clear that only a minority maintained outright rejection

('**Rejecters'**), and the majority, after some discussion, showed an unexpected interest in getting started (**'Disengaged'**).

The 'Rejecters' were unlikely to respond to attempts to engage them

1.12 This was a diverse group – from busy grandmothers to contented hobbyists – and their reasons for ongoing non-involvement were similarly varied. Overall, they were happy to voluntarily exclude themselves and were unlikely to change their attitude.

The 'Disengaged' were the key discovery and the evidence suggests that this segment comprises the majority of current non-users within the 55+ age group

1.13 Similar to the 'rejecters' in terms of diversity, this audience visibly grew in confidence as the discussion progressed, with many suggesting by the end of the groups that they would like to try the internet. The key issue was the manner in which to engage this audience. This group was approximately two thirds of the initial segmentation.

Conclusions

1.14 DTV is considered mainstream and accessible by this age group and those that do not have this technology do so out of choice, rather than due to technical or economic reasons.

1.15 Reasons for non-take up of the internet were significantly more complex and varied. Aside from those that had experience of PCs at work, attitude and character appeared to be the key determinants of whether this age group would become users. Good examples of this were the 'Self Starters' who were sufficiently self motivated to take up learning about PCs without any prior exposure.

1.16 Notably, age, economic and health reasons were not significant barriers to take-up, rather non-users talked about issues relating to motivation and ability, as well as social and environmental reasons. Importantly, non-users divided into two distinct groups. Once groups rejected the idea outright. The other voiced concerns but after some discussion showed interest in having a go.

1.17 The evidence suggests that there are a significant number of non-users who currently feel 'disengaged' from the modern world but given the appropriate support and assistance would overcome their concerns and fears and benefit from PC / internet usage.

1.18 To engage with this audience, the environment for learning has to be specifically tailored towards older people – in essence, courses (free if possible) run by older people for older people and designed for genuine beginners. In addition, the idea of a mentor, based locally that could assist face-to-face or at least over the telephone, was considered similarly important.

1.19 Ideally suited to assisting with this tailored approach would be the 'Self Starters' group – their learning experiences have meant they have a unique insight into the difficulties faced by older people when learning PC / internet skills.

Attitudes towards technology overall

A mix of enthusiasm and concern from everyone

2.1 Across the sample, respondents' first thoughts about technology focused on similar issues and included both positive and negative views.

2.2 The positive elements most commonly mentioned included:

- Advances in medicine, transport, communications

- More information has meant increased choice

- Numerous possibilities compared with previous years

- The world is a smaller and more accessible place.

2.3 There were also several areas that many of this age group were concerned about, including:

- Speed of change and the pressure to keep up

- Nothing lasts forever any more, everything is thrown away and replaced

- So-called efficiency has meant complexity rather than simplicity

- An ever increasing reliance on technology – perhaps too much

- Adopt new technologies or be marginalised.

> *"So many possibilities compared with even 10 years ago".* (Watford, 63)
>
> *"It's amazing what you can do with the computer nowadays, booking a holiday and ordering things without moving".* (Southampton, 57)
>
> *"Everything's with a card these days, I saw someone in the supermarket buying an apple with a card, I mean really!"* (Cardiff, 62)
>
> *"Kids can't do anything for themselves these days without technology, certainly they can't add up".* (Belfast, 65)
>
> *"Nothing works now if the power goes down".* (Watford, 67)
>
> *"You can't fix your car anymore; it has to be linked up to a computer".* (Watford, 65)

But there were very different responses across the sample in terms of their feelings towards technology

2.4 Internet users' responses varied from the rational and functional to excitement and wonder, depending on their experience.

2.5 For the most experienced, technology was evidently an integral and accepted part of their lives and there was little emotional involvement.

> *"It's just part of my life now, so much so that I can barely remember what we did before it was there".* **(Edinburgh, 58)**

2.6   The less experienced were keen to show off their knowledge by listing different products but also used words such as "wonderful", "incredible", showing a relationship with technology that appeared new and full of excitement.

> *"Completely amazing, I think it's wonderful what we can do now".* **(Manchester, 66)**
>
> *"I talk to my grandchildren in Australia and watch them on the screen, it's really incredible".* **(Manchester, 67)**

2.7   Non-internet users also wished to demonstrate their knowledge of different products, albeit with some confusion, but comments such as "fear", "complicated", "another world", "not for me" gave an indication of their less comfortable relationship with technology.

> *"I haven't got a clue, it makes me feel so stupid".* **(Southampton, 64)**
>
> *"No one talks to each other any more, and the children are all fat because they don't go out and play".* **(Belfast, 67)**
>
> *"I don't dare touch it, I'm sure I'll break it".* **(Southampton, 58)**

Overall, DTV and internet were seen as very different

2.8   It was clear that respondents' general comments about technology tended to focus on computers and the internet, rather than DTV or other aspects of technology.

2.9   Attitudes towards PCs / the internet were very different to DTV. DTV was regarded as accessible and mainstream, even by those that did not regard themselves as technically minded, whereas attitudes towards PCs / internet were much more polarised.

> *"I see digital television as just an extension of what we already have, but a computer is whole different matter, I have no idea where to start".* **(Cardiff, 62)**

Section 3

The internet

Attitudes towards the internet among current internet users differed somewhat from the original segmentation

3.1   There were many different factors that influenced take up of the internet at home but the one key determinant of home PC / internet use among this age group seemed to be experience of PC/ internet at work.

3.2   With just one exception, all those that had used PC/internet for work were home broadband users, whether they were still working full time, part time or retired. These users were so at ease with PCs / internet access that the original term **'Embracers'** implied too active an involvement – **'Absorbers'** would be more appropriate.

3.3   The remainder of the sample had no experience of PC / internet at work, although some were familiar with word processing. These divided into users of PC / internet at home and non users.

3.4   In the initial segmentation, these users were termed **'Late Adopters'**, i.e. hesitant users with dial up access who came to technology late in life. The term **'Late Adopters'** however does not recognise the enthusiasm and dedication shown by this group to learn PC skills – **'Self Starters'** would be a more appropriate descriptor.

However, among non-internet users, attitudes varied considerably from the original segmentation. Non users were not all voluntary 'rejecters' as originally hypothesised, instead the majority of non users wanted to become involved given the right set of circumstances

3.5   Non-users were originally clustered under the term **'Digitally Disengaged'** – i.e. possible DTV users but with very little interest in technology overall.   This segment was intended to represent the large numbers of older people who 'voluntarily exclude' themselves from the internet (58% of people aged 65+, *Consumers and the communications market: 2006*).

3.6   The findings show that, although the **'Digitally Disengaged'** segment was varied in terms of their attitudes and barriers to internet usage, these non users divided into two distinct groups:

- **'Rejecters'** – the minority who rejected PC / internet outright

- **'Disengaged'** – the majority who appear to voluntarily exclude themselves and felt 'disengaged' from technology, but, given the right environment, would be interested in finding out more.

Among current users, the 'Absorbers' experience of PCs / internet meant their attitudes towards technology as a whole differed significantly to the 'Self Starters'

Internet Users - the 'Absorbers'

3.7 Attitudes from this segment were very consistent across the different locations.

3.8 Although most had used PCs at work for over 10 years, many could still recall the difficult transition from paper to PCs.

> *"We were very good at doing our drawings by hand and saw no need to use CAD programs. It was extremely difficult to adjust but you had to or you didn't have a job". (Edinburgh, 59)*
>
> *"It didn't come naturally, but like anything, the more you practised the easier it got". (Manchester, 61)*

3.9 There was also a strong sense that this segment was grateful for the learning opportunity and, for the retired in particular, PC / internet access was now an important part of staying alert and in touch.

> *"When I retired, the first thing I did was set up an office at home, it made me feel better about not going to work". (Edinburgh, 63)*

3.10 For those still working and semi-retired, PC / internet access at home was an extension of the office – for storage, communication and research. For those no longer working, the PC also served as a useful tool for the children / grandchildren to do homework, etc.

Internet Users - the 'Self Starters'

3.11 None in this segment had experienced PC/ internet at work, and although some had used word processors they had all, in effect, started from scratch.

3.12 This was a very diverse group in terms of demographics and social environment – from widowers living alone with no extended family to grandmothers surrounded by lots of family – but they had one thing in common, a strong determination to get going on the internet.

3.13 Motivations for getting going varied from the specific – a son had gone abroad and email was the best way of communicating with him – to something more general such as wanting to keep up and not get left behind.

> *"I bought a digital camera and I wanted to be able to do all the things I'd read about so I bought a computer soon after". (Manchester, 69)*
>
> *"I love to travel and whenever I met someone they would give me their email address and so I had to get going if I was to keep in contact". (Manchester, 72)*

> *"I just thought it was time I had a go, I hated the feeling that all this was going on around me and I didn't know what it was about".*
> *(Southampton, 72)*

3.14 Family played an important supporting role for many of these self-starters and children were often the reason for acquiring the first computer.

> *"My son has always had his own computer here, and when he got his job in Australia, he gave us his old computer and set us up with email and the Internet". (Manchester, 62)*

3.15 Getting started was considered the most difficult part and had been full of anxiety for many. Most sought external assistance either through family or via a course – with positive and negative experiences. A small minority were self-taught.

- Courses were generally seen as poorly targeted towards the elderly – they were often run by young people and presupposed a degree of knowledge.

> *"I was completely bewildered to start off with, I didn't know how to use the mouse but I kept going back and it started to make sense".*
> *(Cardiff, 65)*

> *"Everyone was much younger, it didn't seem a beginners' class to me".*
> *(Edinburgh, 63)*

- Family were not considered the most patient teachers either, but were at least on the end of the phone when things went wrong.

> *"It's when you get stuck that you need some help to get you moving again". (Cardiff, 62)*

3.16 Skills and ability varied enormously but there was no shortage of enthusiasm and many felt a strong sense of achievement.

> *"You feel very proud when you get an email from a friend, open it up and send a reply and it works – when I started I never thought I'd get to this stage". (Watford, 59)*

> *"Living on my own and not very mobile, going on the internet has made me feel part of things again". (Manchester, 75)*

3.17 In many respects, this audience were ideal ambassadors for encouraging their contemporaries to get involved – they understood the difficulties in getting started, and were able to elaborate on what they felt were the advantages of internet access.

3.18 Recent experiences also meant these 'Self Starters' were well placed to advise how to improve the first learning stages. Two recommendations were consistently mentioned:

- Courses (free if possible) run by older people for older people and designed for genuine beginners.

> *"Its so important to have someone who has been through the difficulties themselves – we just don't think the right way and it takes lots of repetition for it to sink in". (Edinburgh, 74)*
>
> *"We haven't been brought up with technology and so it's really difficult to take it all in – remember your brain slows down when you get old!" (Belfast, 67)*

- Access to support from a mentor, in person if possible.

> *"I'm not talking about those dreadful help lines – it would be lovely to know there was someone to call if there's a problem, it would give you confidence to try things out". (Southampton, 59)*

Internet non-users were largely similar in their attitudes towards PC / internet, but for one significant difference

3.19 **'Rejecters'** had decided not to be involved, whereas the 'Disengaged' did not reject the idea outright and showed some interest in taking things further, despite their concerns.

3.20 The most commonly mentioned barriers to internet usage among non users were related to the following areas:

- Skills and ability

- Motivation / information needs

- Social / environmental issues.

Internet non-users - Barriers

Skills and ability

3.21 For the vast majority of non users, lack of any exposure to PCs raised doubts about their ability to cope with learning this new technology.

> *"Young people are taught the skills from a young age, we've lived a long time without having to think like this and I know several of us are unsure whether we're up to it". (Belfast, 65)*

3.22 Essentially PCs and all the elements that went with them – screen, keyboard, mouse, language – appeared complicated, even frightening, to these beginners.

> *"Reboot, surf – I've heard these words being used but they mean nothing to me". (Watford, 63)*
>
> *"I'm terrified I'll break it if I touch the wrong button". (Southampton, 63)*

3.23 Given the perceived difficulty in learning about PCs, several questioned whether the benefits outweighed the effort required:

- For some, it was simply easier not to face the problem and just claim to be too old

- Others, a small minority, admitted that the learning process could show them up and embarrass them in front of their family.

Information needs/motivation

3.24 Most of these non-users had heard about what the internet could be used for, but several found it difficult to envisage how they would use it.

"I just can't think, if I need to look something up I'd go to the library or ask my son". (Southampton, 72)

"I'm happy with the hobbies I've got, I don't think I need it". (Cardiff, 62)

3.25 Many also commented on how they had survived so far without the internet and questioned whether it was necessary to start learning now, particularly as the children do it for them.

"The kids are the whizzes with this, just use them if you want to know something". (Belfast, 67)

3.26 A small number had been on courses through their work or on their own initiative and had suffered an experience that had put them off further learning.

"I went to a computer class for beginners and the teacher said she was sorry but she thought I was too old". (Manchester, 62)

"I was told by the teacher to wait outside at the start of the lesson and she forgot about me, last time I go to any stupid course". (Southampton, 68)

3.27 Awareness that libraries offered free internet access was widespread, but very few had tried for fear of exposing their ignorance or embarrassing themselves.

Social and environmental issues

3.28 The speed of change in technology and the perceived pressure to upgrade frequently raised concerns about the quality of the products and the potential financial outlay.

"We're used to things that last, I want to buy something that lasts longer than two years or whatever, otherwise it seems a waste of money". (Southampton, 73)

3.29 Lack of time was also a barrier for several grandmothers who were looking after the grandchildren whilst their parents worked, and a few were unsure where the machine would fit in the house.

> *"Pensioners live in small flats and don't have a lot of room".*
> *(Manchester, 67)*

3.30 A few of the more recently retired were keen to maintain their independence and mobility and felt that computers could threaten both.

> *"You're always sitting down at a computer and we'll be reliant on others for help all the time". (London, 58)*

3.31 Conversely, a minority of those disabled / housebound felt that learning about technology might upset their dependent relationships with their children / grandchildren.

3.32 Stories in the press about security and privacy issues were also mentioned.

> *"You're always hearing of people getting ripped off, it doesn't sound very safe to me". (Belfast, 56)*
>
> *"Apparently people can look at what you're doing on your machine when you're connected to the internet, I wouldn't want that". (Cardiff, 62)*

3.33 In Northern Ireland, in particular, there was a strong feeling among non-users that the increasing lack of social interaction within the community was due to the internet. Some felt the internet was addictive.

> *"No kids go out and play any more". (Belfast, 59)*
>
> *"I've heard you can get addicted to it – one of the old dears on the estate, she's never off it". (Belfast, 62)*

Despite all these concerns, the 'Disengaged' showed a degree of interest in getting going that the 'Rejecters' did not

The 'Disengaged'

3.34 The majority of non-users – roughly two thirds – were the 'disengaged'.

3.35 They visibly grew in confidence as the discussion progressed.

> *"I never thought I'd be interested, but after all this talk, I'd like to have a go". (Edinburgh, 67)*
>
> *"You know, there are a few things I'd like to know about – my family history for example". (Southampton, 68)*

3.36 By the end of the discussion, there was widespread interest in getting going – but only on a course that was suitable for them.

> *"I'd only be interested in courses that were tailored to us oldies, I wouldn't feel comfortable otherwise". (Edinburgh, 74)*

12

The 'Rejecters'

3.37   Overall, the 'rejecters' were the minority of non-users – roughly a third.

3.38   Generally they fell into one of the following four types:

- 'Family Frantics' – children and grandchildren had taken over, there was just not enough time in the day

- 'Keen Hobbyists' – too busy with their current activities, painting / gardening / reading, etc

- 'Contented' – happy with their lives as they are, saw no need to take on new challenges

- 'Patriarch / Matriarch' – better not to get involved at all than risk appearing foolish in front of the family.

Overall, age, economic status and health were not significant factors in the decision to take up the internet

3.39   Whilst age inevitably had some influence on take up, it was clear that attitude and character were more of a determinant – one 82 year old great grandmother was keen to get started.

3.40   Similarly, among those who had disabilities or were in poor health, take up of internet usage varied considerably.

3.41   Notably, costs / economic factors were rarely mentioned as a barrier – it seemed that even those on the lowest income would find the money if they were interested. It should be noted that we did not research specifically among low-income families.

Section 4

Digital Television

DTV ownership was widespread but understanding of DTV and its benefits was limited

4.1   Roughly three quarters of the sample had DTV but several respondents, generally those with little exposure to technology, were unsure whether they had DTV or not.

> *"I've got a digibox I think, does that mean I've got it?" (Watford, 73)*

4.2   This appeared to be due to the fact that most respondents were Freeview users and they were relatively new to DTV. Freeview was seen as an attractive option for the extra channels and the one off payment, and several had been given it as a present.

4.3   The vast majority felt that DTV was a small step from their previous set up, and generally well within their capabilities – once the control handset had been explained to them.

> *"We just get more channels, it's not that big a deal, apart from having to understand which buttons to press on the control". (Cardiff, 67)*
>
> *"I know which button to press now, and I don't touch any of the others". (Watford, 63)*

4.4   None of the sample had experimented with the interactive buttons – their understanding of the benefits of DTV was limited to extra channels and, possibly, a clearer picture.

Voluntary exclusion from DTV was due to lack of perceived need rather than technical or economic reasons

4.5   Those that voluntarily excluded themselves from DTV appeared to do so because they were happy with their current set up and saw no need for extra channels.

4.6   However, a minority of non-users were also concerned that they were being compelled to accept a new technology which may be expensive for them.

> *"I don't think it's right that we should be obliged to pay to get all these new channels, I'm quite happy with what I've got". (Manchester, 59)*

The digital switchover was a source of anxiety for many DTV users and non-users

4.7   A key issue for many in this age group was the digital switchover. Awareness of the switchover was high but the timing and the implications were not clear to a large number of users (mostly Freeview) and non-users.

> *"I heard that's happening some time in the next 5 years". (Belfast, 63)*
>
> *"Does that mean I'll have to get a new television?" (Manchester, 62)*

14

Methodology

Objectives

1.1 To provide a detailed analysis of older people's profiles and characteristics, comparing those who have purchased internet and DTV services with those who have not.

1.2 To assess the similarities and differences between users and non-users of these services in terms of:

- Attitudes towards change in general and technology in particular

- Awareness and understanding of internet and DTV services

- Key triggers that encourage take up / key barriers that discourage take up

- External factors and their effect on decision making (e.g. lifestage, working status, affluence, health, mobility, family structure, etc)

- Perceived user benefits and their potential to encourage and motivate non-users.

1.3 To explore the process that purchasers of internet and DTV services have gone through and identify any learning from these experiences.

1.4 To provide recommendations on ways to encourage consideration and take up of these services among non-users.

Approach

1.5 18 x 1.5 hour focus groups in 6 different locations across the UK (Watford, Cardiff, Belfast, Manchester, Edinburgh and Southampton).

1.6 Based on results from the *Consumers and the communications market: 2006*, an initial segmentation was developed and this age group was divided into the following 3 segments. To ensure the greatest degree of homogeneity within the groups, recruitment was based on both usage and attitudinal quotas.

- **'Digitally disengaged'** (8 groups)
  - May have mobile phone and DTV, but not internet access nor 'into' technology

- '**Late adopters**' (5 groups)
  - May have mobile and DTV, have internet access (dial up), 'mid-range' attitude to technology

- '**Embracers**' (5 groups)
  - Have mobile, may have DTV, have broadband internet, 'high interest' in technology

1.7 The groups were supplemented with 20 in-home depth interviews among consumers with disabilities and/or those unable to leave the home to attend group sessions.

Focus group format/content

1.8 The groups followed an agreed discussion guide that was intended to be unstructured and open ended. The aim with these groups was to allow the participants to express their thoughts and feelings in their own words, and to avoid, as far as possible, direct questions that would inevitably supply them with our own words and ideas.

1.9 The groups followed a format, summarised as follows:
- Introduction / warm up with discussion about family / work environment
- Attitudes towards technology in general
- Internet - understanding, usage, awareness and attitudes
- DTV – understanding, usage, awareness and attitudes
- Group problem solving – ways to encourage non users to overcome barriers.