

SWITCHED ON

An exploration of Britain's tech savvy consumers

A Research Report

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FOREWORD

Looking into the future is always challenging, but keeping ahead of environments that are changing as fast as the world of communications is particularly difficult. The Ofcom Consumer Panel¹ wanted to understand more about the issues consumers in general might face in the future. We hoped that we would get some useful indicators by learning more about those consumers who have already integrated the newest communications technologies into their everyday lives; the 'happily engaged' consumer.

Importantly, this research starts from the position of those consumers – exploring how they think and feel about communications technologies; how and why they use them; how they fit communications technologies into their lives; and how they view convergence.

This research reveals that most consumers will take up technology because it meets a need, not just because it is clever or new. Consumers will not give up their normal social and cultural patterns at the press of a button – communications technologies have to work with the grain of everyday life. Those technologies which do this and meet consumer needs will tend to be well received.

There are a few notes of caution however, particularly in relation to privacy and the use of personal electronic data by others. Other consumer concerns are: the difficulty of navigating a path through the increasingly complex communications market; and a feeling of powerlessness in the face of the changes that these new technologies bring.

The Panel will use this research to inform our thinking about the future of the communications market and specifically to contribute to the Government's

‘Convergence Think Tank’ – a forum which has been established to discuss what the future might hold for communications policy and regulation. We will be seeking to ensure that the consumer interest is at the heart of this debate.

¹The Consumer Panel was established under the Communications Act 2003 as the independent research and policy advisory body on consumer interests in telecommunications, broadcasting and spectrum markets (with the exception of content issues). Working from a firm evidence base, we advise Ofcom, the communications regulator, and others on how to achieve a communications marketplace in which all consumers can confidently choose and use products and services that suit their needs.

The Consumer Panel sets its own agenda but works constructively with the Ofcom Board. This enables us to give strategic advice on policies early on in their development – before they are consulted on – so as to build consumer interests into Ofcom’s decision-making from the outset. The Consumer Panel is made up of part-time members with a balance of expertise in consumer issues in the electronic communications sector. There are members representing the interests of consumers in Scotland, Wales, Northern Ireland and England.

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INTRODUCTION

This report explores the world and nature of the happily engaged, 'tech savvy' consumer and aims to provide an understanding of their relationship with communications technologies. For the purposes of this report we define communications technologies as:

- **The internet**
- **Television**
- **Radio**
- **Mobile phones**
- **Gaming**

By speaking to a wide range of people and professionals we have sought to uncover the factors that affect how and why people use communications technologies.

In speaking to the 'tech savvy' we focused on people who incorporated technology into their everyday lives rather than those who enjoyed technology as a hobby in its own right or used it for professional purposes. We explain this in more detail in 'How We Went About It'. There you can find out more about our reasoning for selecting the participants in the research.

In the 'Under the Spotlight' section you will find 'Tech Portraits', snapshots of how some of the 'tech savvy' consumers we spoke to fit technology into their lives.

EXECUTIVE SUMMARY

The key to understanding adoption of new communications technologies by the happily engaged and 'tech savvy' lies in understanding people's basic human needs. For the purposes of this report we have identified five needs satisfied by communications technologies:

- **Family, friends and love**
- **Connection with the wider world**
- **Safety and security**
- **Entertainment**
- **Self-expression**

Most people will not take up a new technology simply because it is technically impressive - it must at least meet one of these needs.

While meeting a need is fundamental to a technology being adopted, there are other factors which determine the level of uptake: people's routines; their homes; recommendations from friends and family; the increasing presence of technology on the socio-cultural agenda; different periods in their lives; and the delineations by which they make sense of the world. If a technology is to be widely adopted it must not disrupt these factors.

People view technology as 'good' or 'bad' depending on the context in which it is used. The positives are seen in terms of the small benefits and conveniences that a technology can bring to a person's life, which can include bringing the world closer, or providing security and comfort. The advent of portability means these benefits can be enjoyed whenever and wherever it is convenient.

In contrast, people see the negatives in terms of the impact communications technologies have on wider society, such as: the collection and protection of personal data and a lack of privacy; the over-reliance on new technology; the social pressure to keep up with the latest technological developments; the pace of change costing more; and, in an increasingly complex fast-moving market, people feeling that it is

becoming more difficult to make the right choice.

In this increasingly diverse technological landscape, the Bell Curve model of adoption will become outmoded for many communications technologies. A consumer's profile will become more complicated and many more consumer profiles will emerge depending on the communications technologies they choose to adopt. This fragmentation will be a result of increased choice rather than exclusion due to cost or lack of media literacy.

In this complex technological market, providing people with the tools that enable them to choose the most appropriate communications devices and services will be essential. Clarity of language used by service providers and device manufacturers will also be vital.

Mobile convergence is already here. Mobile phones offer a range of functionalities which have not disrupted the device's primary purpose of mobile telephony. These additional functions have yet to replace devices that are designed for a specific purpose and are seen to be of better quality, such as digital cameras.

The acceptance of a converged home device by consumers is less widespread. People view this convergence as disrupting their domestic arrangements, being difficult to operate and more costly. Integrating standalone devices is more readily understood and more appealing due to the flexibility integration offers.

While people see the benefits of on-demand content, television and radio schedules will continue to play important roles in people's lives. The schedule forms part of people's routines and delivers a shared experience with a wider world. At a more fundamental level, much content is time-dependent and is simply not suited to time-shifting.

People feel a pressure to keep up with a market that they feel is pushing technology on them. People react differently to these feelings of powerlessness, with some opting out of the race to keep up. Others do try and keep up, but at their own pace.

Consumers must be able to choose 'freely'. Free choice depends upon the ease of changing or integrating services or devices. Services and devices should not be so

inextricably linked that switching a device or service renders the other obsolete.

The research revealed that consumers are concerned about their privacy and security online. They do not know how their personal data is protected, or if it is at all. Therefore, it is important to educate the public on the risks of electronic existence, how they can protect themselves, and what measures are already in place.

Finally, it must be remembered that the needs we have identified are universal and timeless; they will not change. The way people meet these needs, and how technology fits within them, will. Ultimately, people will continue to adopt technologies that are simple, cost-effective, and easy to use.

HOW WE WENT ABOUT IT

The challenge for this project was to make sure we spoke to exactly the right kind of people - those who were happily engaged with the communications technologies they used and for whom technology was a normal part of their everyday life. They needed to be 'tech savvy' but not have technology as a hobby or professional interest. People who were into technology for its own sake would not be a reliable indicator of the mass consumer's habits, hopes and fears.

We felt that the happily engaged consumers we identified were best placed to talk about the wider social and cultural implications that technology can have.

In our experience there are countless varieties of happily engaged, 'tech savvy' consumers - from teenagers almost surgically attached to their mobile phones to retired people emailing family in Australia. To ensure we covered all the relevant technologies in detail, and their differing impacts, it was vital we represented this variety in our sample.

We felt that the best approach was to 'cover the waterfront' in terms of age and sex and use our experience to create typologies based on tech behaviour. We created 10 typologies that did just this. The descriptions below describe the defining characteristics of each typology. In practice each group used many more technologies than those mentioned below. The 10 typologies were:

- **Content Generators** - 20 to 50 year-old women who enjoy social networking and use web 2.0 technologies.
- **Domestic Tech Goddesses** - 25 to 40 year-old women, some with children, who use the internet for bargain-hunting and shopping, and generally "to make life easier". They also use PVRs.
- **Facebook Community Leaders** - 20 to 35 year-old women who add new applications to social networking pages, create and invite others to groups.
- **Global Connectors** - 20 to 50 year-old women who use technologies such as VoIP,

instant messaging and webcams to stay in touch with people around the globe.

- **On Demanders** - 25 to 35 year-old men who use on-demand internet services and state that “schedules mean nothing to them”.
- **Retired Browsers** - 60 to 70 year-olds who use a variety of technologies and who like to keep up with the “technological age”.
- **Tech Blokes** - 30 to 45 year-old family men with a range of technologies at home, including games consoles, PVRs, top of the range hi-fis and flat-screen TVs.
- **Tech Hobbyists** - 20 to 35 year-old men, the most technologically advanced of the groups but still not “buying technology for technology’s sake”.
- **Teen Boys** - 15 to 17 year-old boys, using advanced features on mobile phones, the internet for social networking, audiovisual content and instant messaging. Technology is just a part of their lives.
- **Teen Girls** - 15 to 17 year-old girls, using advanced features on mobile phones, the internet for social networking, audiovisual content and instant messaging. They use technology to connect with friends.

In practice, these typologies blurred because many behaviours were common to more than one. Not surprisingly, we found that life-stage was the most potent determinant of technologies and services used. However, as a way to examine all the different technologies in detail, this approach proved extremely valuable.

We spoke to 10 four-person groups across Great Britain about the technologies they used and the benefits and negatives they brought to their everyday lives. In order to get them thinking about the topic beforehand we asked them to complete a diary of their tech behaviour over the week prior to meeting. This exercise was revealing - people were genuinely surprised at how much they use technology, taking its central role in their everyday lives for granted.

Consumers themselves can sometimes find it difficult to understand or explain why they do things. It's especially difficult for them to predict how their habits might change in the future. With this in mind, we thought it essential to speak to a range of 'professionals' (without any vested interest). They encompassed academics, journalists and analysts, who were able to give insight into consumers' present and likely future relationship with communications technologies.

We would like to thank the following for their time and invaluable input into the research.

- Benjamin Ensor of Forrester Research
- Toby Syfret, James Barford and Grant Goddard of Enders Analysis
- Prof. Nick Couldry, Professor of Media and Communications at Goldsmiths, University of London
- Prof. David Gauntlett, Professor of Media and Communications at University of Westminster
- Dan Grabham, News Reporter for tech.co.uk

In a second stage of research we focused on developing a clear view as to what 'tomorrow's world' of technology might be like and what the potential negative and positive effects might be. A number of those we'd spoken to in the original phase were invited back to discuss scenarios which some believe will become reality in the near future. These included convergence of home devices into a home network, convergence of portable devices, online shopping becoming the most prevalent means of commerce, schedules becoming obsolete and more. This phase enabled us to not only uncover the consumers' hopes and fears for the future but also to really get to grips with what it is about technology that makes the consumer tick.

The research was conducted by Magnus Willis, Konrad Collao and Briony Maggs, all of Sparkler, between 9 and 23 October 2007.

TECHNOLOGY AND HUMAN NEEDS

Communications technologies do not exist in a vacuum - they exist in real people's lives. Thus, to understand the impact of communications technologies it was essential that we based our analysis in human nature.

Communication technology meets a set of timeless, universal needs

These needs can be broadly categorised into five overarching universal themes. They are:

- **Family, friends and love**
- **Connection with the wider world**
- **Safety and security**
- **Entertainment**
- **Self-expression**

And technology offers myriad ways to meet these needs everyday. Here are some examples we came across:

Successful communications technologies are those that meet these needs best

A technology's worth was determined by how well it met a need and how important that need was to the individual. Once a communications technology was identified as meeting a need, other factors were considered by the 'tech savvy' consumer before they would take it up.

Simplicity is a key to success

If a service or device was too difficult to install, learn, or too time consuming, consumers lost interest.

'Tech jargon' served to blind the 'tech savvy' consumer. Acronyms and model numbers often made them feel that a service or device was too 'techy' and not for them.

A sense of permanence is also key

'Tech savvy' consumers were aware that communications technologies could be quickly superseded by the 'next big thing'. Before investing time, money, or effort, consumers wanted to know a device would last for a meaningful period of time - typically months and years, not days and weeks. While services that were 'free' might not need to feel as permanent, the amount of time and effort needed to acquire and learn to use a service had to be balanced with the length of time for which the service would be useful.

Value is more important than cost

These consumers were astute at evaluating the practical benefits that communications technologies could bring to their lives and what they were willing to pay for them. The questions they asked were: did a communications technology represent good value? How well did a service or device meet a need? How simple was it? Did it have a sense of permanence?

FAMILY, FRIENDS & LOVE

- Call the kids/wife/parents
- Text friends to organise meeting-up
- Email a sister abroad
- Get in touch with old school friends on Facebook
- Watch television together as a family
- Find a date online

ENTERTAINMENT

- Play games on a mobile phone when travelling
- Record 'Lost' on 'Series Link'
- Download music from internet
- Find and watch a missed television episode on the internet
- Listen to the radio online whilst browsing
- Play multi-player games online through a console

SAFTEY & SECURITY

- Get in touch with the kids at any time
- Call a boyfriend when walking home
- Text to say got home OK
- Keep the television on as company
- Look up diagnoses on the internet
- Check 'AA Roadwatch'
- Check Google Maps on a mobile phone if lost

CONNECTION WITH THE WIDER WORLD

- Get desktop news alerts
- Google a film to read a review
- Get 'Football 24/7' on a mobile phone
- Surf the internet
- Watch a popular drama on television
- Check out a new band's MySpace page
- Get the latest iPod

SELF-EXPRESSION

- Research a hobby on the internet
- Take photos on a mobile phone whilst out and about
- Write a blog
- Design a social networking page
- Get a ringtone from a friend via Bluetooth
- Upload a video to YouTube
- Record a documentary on PVR
- Choose a new mobile phone in pink

THE 5 THEMES OF UPTAKE

When discussing communications technologies with 'tech savvy' consumers, five clear themes emerged that affect uptake. Some of these are rooted in the way that people live their lives. Others depend partly on the changing technology market itself. The five themes are:

- 1. The Bell Curve Myth**
- 2. In Time with the Rhythms Of Life**
- 3. The Power of Our Peers**
- 4. Technology Goes Public**
- 5. Communication Beats Content**

THE BELL CURVE MYTH

Received wisdom tells us that the uptake of technologies over time can be explained by the Bell Curve model - beginning with a very small number of aficionados, going through a phase of mass adoption and finally being taken up by the remaining laggards. All consumers can be placed somewhere in this model.

This may be true for certain technologies, such as fridges and televisions, but from what we saw, this model increasingly fails to explain and predict today's uptake of communications technologies. Instead, different consumers will take-up different technologies, avoiding some communication products altogether. Not everyone will become a blogger or upload content. Those with family abroad may embrace VoIP for free international calls but will continue to use their mobiles for domestic calls. Others may use their gaming console to watch broadcast media instead of using a digital set-top box. Thus, the old model of 'inclusion' based on a fixed telephone line, television and radio is breaking down.

There a number of reasons for this:

The market moves quickly

The pace of change in the communications market means new services or devices have a limited time in the limelight.

Another device arrives that meets a need better

Devices can be quickly superseded by a better solution.

Multi-purpose devices are an added complication

As an increasing number of devices fulfil more than one function the number of ways in which a need can be met is multiplied.

There is competition from all sides

Technologies appear that answer the same need in different ways.

No consumer has an overview of the market

Different consumers have knowledge of different services and devices and personal preference dictates which they choose.

Some technologies meet needs in a way that only applies to a niche group

Although the needs identified are universal, the way in which the consumer chooses to meet them varies.

IN TIME WITH THE RHYTHMS OF LIFE

People need to structure their time

Despite the advance of technologies that are supposed to allow more time and freedom, routines such as working hours, mealtimes and the school run still played a vital role in the lives of those we spoke to. These routines dictated people's use of communications technology.

Communications technologies must be integrated into people's routines

Devices that people could fit into their routines without disruption were the most useful. The mobile phone was often mentioned because it allowed people to get on with their day without having to allocate time to use it. PVRs were also praised for fitting around people's day-to-day lives.

"It's so good, you can pause television if [my child] cries and then go back and start it again."

Domestic Tech Goddess

Other communications technologies were allocated times within a routine. For example, for many the evening was 'TV time', the time of day to relax, while the computer was often avoided because people associated it with work.

People structure their homes too

Those in family homes had clearly defined purposes for rooms, although these definitions were less clear for those who lived on their own. Consequently, devices had to fit with the purpose of the room in which they were placed. The living room was for relaxation, the kitchen for eating and so on.

The computer was used mainly for organisational tasks such as banking, shopping or finding information. Thus, many kept a desktop computer in a separate area in a house because having it in the living room felt out of synch with the room's purpose. Its primary purpose was seen to be practical and it was not seen to be suited to a

room organised around relaxation. Those who watched audiovisual content on their computers tended to do so on laptops, in a more relaxing environment than at a desk or table.

“There’s a difference in behaviour in that people tend to ‘sit forward’ at a desk for information hunting, but they prefer to ‘sit back’ in an armchair with entertainment media.”

Prof. David Gauntlett

These defined room purposes may change as the functions of technology change. People may become more willing to access the internet through their television as the internet becomes more closely associated with delivering entertainment content rather than practical information.

People make sense of the world through boundaries

The boundaries people erect play a huge role in helping them make sense of their world. The delineations between: work and leisure; different groups of friends; different places; or different times of life, all serve to structure our lives. It was often said that technology blurred these boundaries.

- **Work and leisure**

Work and leisure could continue to seep into each other due to the impact of such services and devices as the mobile phone, email, and the internet. This worked both ways with many checking eBay and Facebook at work, while receiving work calls, emails and texts outside office hours.

- **Social circles**

Social spheres could mix due to social networking sites encouraging people to have all their ‘friends’ in one place.

- **Life-stage**

Different life-stages in a person’s life, which were once separate, could also begin to merge. For example, the internet has allowed people from their past (e.g. from school or a previous job) to track them down.

“It’s weird... It’s like everyone you’ve ever known is brought together, even people you haven’t seen in years.”

Facebook Community Leader

- **Geographic separations**

The constraints of geography have become less relevant. Mobile phones and the internet offer instant and easy ways to communicate with people in other countries, who can feel as close as those at home.

THE POWER OF OUR PEERS

Recommendations drive awareness and uptake

Friends discussed technology with each other in terms of how it benefited their lives. This type of information was the most common form of technological education, and would make a product or service seem more attractive. This information was far more valuable to a 'tech savvy' consumer than understanding a device's technical capability.

"Katie got me into [Facebook]. I wasn't interested in it but then I thought 'this is brilliant!'"

Global Connector

Hearing about a service or device from a friend also encouraged people to believe the technology would be simple and easy to use - if a friend could master a new service or device, so could they.

Everybody knows an 'expert'

If people needed advice about a technology, most had a family member or friend to consult. These 'experts' often helped them to acquire and/or install a new technology and gave people reassurance they would have someone to go to if they had a problem. These experts also boosted the knowledge and confidence of those around them.

"I got a friend, who is a bit of a techno whiz, to come out and have a look at the whole set-up to sort it out completely."

Facebook Community Leader

Peer discussions can inhibit uptake too

Just as positive recommendations could drive the uptake of certain technologies, negative comments - ranging from difficulty of use to problems with set-up - could inhibit a technology's growth.

TECH GOES PUBLIC

Public use of technology has risen

In recent years, a chain of events, starting with the emergence of the Walkman, has meant the public sphere has become over-run with communications technologies. Mobile phones, laptops, MP3 players, PSPs, Blackberries and PDAs are part of everyday life, and even if people are not using these technologies themselves, they are aware of others around them doing so.

"Seeing other people do things, like go on the internet on their iPhone in the pub... that does push it along a bit."

Dan Grabham, tech.co.uk

Presence of technology in the media has too

In parallel with the rise of technology use in public, there has been an increase in media coverage devoted to technology - from the traditional poster ad promoting the latest mobile network call plan, to the significant number of column inches devoted to Apple's latest launch.

"The mainstream media talks about the internet quite casually today... The focus nowadays is much less on so-called threats and risk."

Prof. David Gauntlett

Tech-fashion has emerged

Inevitably, the growth of 'public' technologies has not just delivered functional opportunities for personal communication or music consumption but also for personal expression, which for some is as powerful as a hairstyle, choice of clothes or footwear. For these groups, communications technologies such as mobile phones and MP3 players are fashion accessories.

Public technology has become citizen technology

One by-product of the growth of public communications technologies has been that these technologies, in particular mobile phones, are perceived to be less of a luxury and more of a necessity. Alongside owning an email address, there is a sense that to be a fully engaged citizen, an individual must have a mobile phone.

“You just say ‘give me a ring’ or ‘I’ll ring you later on’... you just take it for granted that everybody has got a mobile phone, everybody has got access to email.”

Tech Hobbyist

“I wasn’t bothered about having a computer but you’ve got to have one nowadays, it’s like a couch.”

On Demander

COMMUNICATION BEATS CONTENT

Across the board, those technologies that allowed two-way communication between people were deemed more important to 'tech savvy' consumers than technologies that deliver content. These technologies met all five of the needs we had identified.

Social networking was appreciated for its fun format. Instant messaging offered teenagers a virtual school playground, where they could find someone to talk to for free at any time. Email was rated highly by older consumers as being quicker and easier than letters. Also, they valued the chance to share and receive family photos via the internet. Mobile phones provided convenience, constant contact with loved ones and the sense of security that they can always reach others.

Content is more about enjoyment

Although technologies that provide two-way communication were deemed 'most important', those technologies that delivered content were often 'most liked'. While some gamed and others accessed audiovisual content online, television was still the predominant communications technology used for entertainment. It was the time that people 'switched off'. Freeview or terrestrial TV was sufficient for many as what they watched was less important to them than the opportunity to relax.

Technologies which provide audio and audiovisual content are judged differently to those which offer communication

In comparison to mobile phones and the internet, television and radio do not allow for much interaction between people or businesses, and communication is primarily one-way. As such, consumers talk about television in very different terms to mobile phones and the internet because they feel they have control over television - it does not put them at risk. For example, television does not identify its users or connect its users to other people, which could potentially expose them to the vagaries of other people's use.

In some cases, communication and entertainment are merging

The internet and game consoles are merging. People can now play online with others around the world. They can also communicate via their console with instant messaging features. This is extending the gaming community with gamers forming groups online.

“My friend’s got an Xbox and he’s always playing against Yanks with the headset and that.”

On Demander

The merging of content and communication is at the heart of web 2.0. It is the ability to communicate around content that holds most appeal.

THE BRIGHT & DARK SIDES OF 21st CENTURY TECHNOLOGY

The following chapter examines the impacts that 'tech savvy' consumers felt communications technologies had on their lives. In particular, it focuses on the 'Bright Sides' (positives) and the 'Dark Sides' (negatives) of the current world of communications technologies.

Before exploring these impacts it is worth putting them in context.

Technology is neutral

'Tech savvy' consumers understood 'good' and 'bad' could exist within the same service or device. They tended to have a 'love-hate' relationship with technology, depending on a context: the time; the place; the person. The best thing about a mobile phone, for example, was often the worst thing about it - always being contactable.

"I miss the days of being able to go to the pub and not be disturbed - but it's so handy if you've lost your friends or it's raining and you need a cab."

Tech Bloke

'Tech savvy' consumers are aware of the pros and cons

These consumers did not rush in to adopt new technologies straight away. Neither did they fear them. They had enough experience of technology to realise that with the positives came some negatives. They were happy to use recommendations from their peers, weigh up the good and bad, and make an informed decision.

The positives are personal

Consumers articulated the benefits of technology in terms of the everyday effects it had on their lives. The examples they gave were of the little ways it could help, such as:

- “You can text your flatmate to get a pint of milk on the way home”
- “You can find the lowest price for a holiday online”
- “You can relax in front of a recording of your favourite programme after a hard day’s work”

Yet negatives are seen as societal

Consumers generally discussed impacts wider than the personal and complained of societal changes thought to be brought about by technology, such as:

- “We’re losing the art of face-to-face communication”
- “Kids don’t play outside anymore and have shorter attention spans”
- “We’re getting fatter”

In the end positives outweigh negatives

Those we spoke to tended to concentrate on the positives, paying little attention to the negatives, which many had not experienced first hand. For them, their own lives and needs were more tangible and relevant than the effects on society as a whole.

Thus, while giving credit card details online was sometimes seen as risky, the convenience of online shopping was deemed by most to be worth the risk; as was the distant threat of privacy being compromised by using Facebook.

“I heard I shouldn’t have my date of birth on Facebook because of ID fraud or something... But I want all the birthday messages you get!”

Global Connector

THE BRIGHT SIDE

'Tech savvy' consumers perceived the benefits of technology in terms of how it helped them in their everyday life. The examples they gave were of how it could help to make their life easier and better, both practically and emotionally. These positives are explained in:

- **A Helping Hand**
- **24/7**
- **Bringing the World Closer**
- **Safety and Security**

A HELPING HAND

Technology offers convenience

Consumers appreciated technology that "saves time and effort". The many functions of a mobile phone helped consumers to organise their lives, acting as: a mini organiser; an alarm clock; a calendar; and an address book. The flexibility of the device allowed it to fit into the gaps in their day - it was used wherever and whenever people wanted, often meeting unexpected needs. The internet was often mentioned as helping to make people's lives easier.

"It's better for me because I'm at home with a baby ... it's easier... Instead of lugging him out to the shops, which he hates, I can sit at the computer and order it from there."

Domestic Tech Goddess

Services which were not convenient tended not to be used. For example, making a video call was more of an inconvenience than a convenience - it required consumers to specifically stop, and take time out, to concentrate solely on the call.

"I tried [video calling] but someone has got to have the option as well and then you have to phone them... And they have to have it turned on... It's too much hassle... I spent 20 minutes trying to get it to work."

Teen Boy

It can save money too

The consumers we spoke to were proud of their savviness, particularly when it came to saving money. They used the internet to find or download free (and often illegal) content to save money on CDs and DVDs, and used mobile phones to swap contacts or content via Bluetooth.

24/7

What you want, when you want it and potentially where you want it too

Consumers enjoyed the flexibility that 24/7 technology allowed them. The internet in particular was praised as a platform from which a number of services could be launched.

"It's like going into a candy store. Anything you want you can have. There's so much choice."

On Demander

By using an on-demand service or certain websites on the internet there was no need for consumers to miss their favourite television or radio shows or, in some cases, even to wait for them to air in this country. Those studying had access to educational information, while others could satisfy their curiosities, however esoteric. Shopping online removed the need to order their lives around business hours or be restricted to the products available in bricks and mortar stores.

"Say something's open from 8 till 8 and it's 9pm... Well, you can go online... It's 24 hours which is great."

Domestic Tech Goddess

Portability replaced the need to reserve a time and sometimes a place for an activity. Laptops meant people did not have to wait until they got home to use the computer, they could use it on the train. Services such as webmail allowed people to check email at work, at home, or in a friend's house.

Mobile phones were valued for meeting unexpected needs. They could call or text their partner to let them know they would be late, or call their friend to let them know they had just spotted a celebrity.

Increasingly it comes to you

Some consumers received news alerts to their desktops or mobile phones. These services removed the need to actively seek out information and enabled them to be the first to know about big events.

BRINGING THE WORLD CLOSER

Technology brings people closer

Technology allows us to maintain the most meaningful of our interests - our relationships. The knowledge that they could contact others abroad quickly and easily, or upload photos of friends and family to the internet, made people feel that distance was not a barrier to communication. Texting, email, instant messaging, social networking and VoIP offered quick and cost effective ways to keep in touch, and encouraged people to do so more often.

"Families are split up... Your mother isn't in the same town as you so the best way to communicate is through your mobile and online."

Domestic Tech Goddess

People also felt comforted by being able to keep those nearby even closer. A text message allowed them to touch base with a friend who only lived down the road, but who they did not have the time to call.

Meeting new people online for the purpose of dating or to increase the number of friends on their social networking page was praised by a few (especially younger) people. For others, online communities offered a place to talk with like-minded people who shared similar interests or concerns.

And makes the world seem smaller

The internet offers access to content, information and people from all over the world in a variety of ways that inform us about other cultures, and of world events as they happen. This direct contact with the world meant that for most, it no longer felt like such a huge and unknown place.

SAFTY FIRST

Technology provides security

Parents were reassured that their children had mobile phones so they could be contacted by their children at any time and vice versa - this was also true of a relationship between friends. The ability to get in contact, rather than any necessity to do so, was seen to offer security. Some pointed out that a mobile phone camera or video could help capture evidence of an accident or crime.

It provides comfort too

Television and radio was reported as providing a connection to a wider world - a sense of belonging and social currency, such as discussing events in last night's soap.

The internet provided comfort by putting minds at ease. It enabled consumers to access services that provided advice from those in similar situations to themselves, or access to information on issues troubling them. Many looked up medical symptoms to double-check diagnoses or seek advice or support on issues such as parenting.

“People with particular illnesses find great comfort in being able to connect with others who are in a similar situation.”

Prof David Gauntlett

THE DARK SIDE

When discussing the negative associations with technology, 'tech savvy' consumers tended to talk less about their personal experiences and more about potential outcomes and societal changes. Their fears were rooted in a sense that technology sometimes could not be controlled. In some situations, confusion and a lack of clarity over their rights added to a feeling of powerlessness. We look at the Dark Sides in:

- **Private Matters**
- **The Tyranny of Choice**
- **Over-reliance**
- **Keeping Up with The Jetsons**
- **Powerlessness**
- **Money Still Matters**

PRIVATE MATTERS

The threat of spam and viruses

The threat of spam and viruses was a big complaint. Consumers felt they were under siege as they could be marketed to anywhere, via email, mobile phone, text, Bluetooth and their home phone. In the case of viruses, some had suffered from the inconvenience of needing to have their computers repaired.

Collection of personal data was a major concern

Those we spoke to were concerned about what might happen to their electronic data, partly due to being unclear where this data could end up, who could use this data, and what it could be used for.

People lacked faith in the protection of personal data

Making payments and providing personal details online were felt by some to be risky activities. People were not clear whether there were rules protecting their data and

what the rules might be. They also did not know how to find out any of this information.

Trusted online brands did give people some feeling of security. There was high awareness of PayPal, and consumers were easily able to understand its purpose and had talked about its benefits with friends.

While most of these concerns related to the internet, mobile phones were seen as a channel that would be increasingly exploited by marketers and those with dubious motives. Teens mentioned 'Bluejacking' (being sent unwanted content or even spyware over Bluetooth). Others mentioned receiving mobile spam.

Loss of privacy grated

Those we spoke to felt exposed to others 'out there' who already knew or could find out so much about them. There was a feeling that some services gave others information about, and access to, their lives in a way which did not replicate the nuances of how people manage their privacy offline.

"Some companies, when they interview people [for a job] they'll type them into the internet... That scares me... That's too much information."

Facebook Community Leader

Those on social networking sites were not 'gung ho' about their privacy. Some set their profile to private and criticised functionalities that let others view content about them without their consent, but many were unaware of what privacy guards existed. Without exception, all felt privacy should be heavily protected.

"But then what about the people who you don't want to find you? You're listed on your friends' profiles as their friend so you have no control over who knows you're on there..."

Domestic Tech Goddess

Unscrupulous businesses can hide away

The transience and intangibility of websites caused many to be suspicious of

businesses that existed solely online. Consumers were uncertain about what the actual quality of goods would be, or whether the company would have an appropriate complaints channel if, after placing an order, goods failed to materialise.

However, some big online brands, such as Amazon and Play, were trusted. Their size and reputation gave consumers confidence, and brands that existed offline enjoyed the same trust online because consumers knew these brands offered tangible channels for redress.

“You trust the brand of Amazon and know who to complain to.”

On Demander

Bad people can hide too

All were concerned by the invisibility that the internet can offer people with suspicious motives. People wanted to be protected against dodgy dates, unscrupulous eBay vendors, and the dangers of paedophiles contacting their children.

THE TYRANNY OF CHOICE

More choice is not always better

Many consumers felt that the increase in television channels had not enhanced their enjoyment of television. In fact, some thought the opposite. Navigating through all the choice was deemed to be too much hassle and many admitted sticking to a handful of channels. Ironically they felt that, with the advent of more choice, the variety to which they expose themselves will decrease.

“It reminds me of going to the supermarket in the States to find three aisles of breakfast cereal ... You end up going for the one thing you knew already.”

Grant Goddard, Enders Analysis

“I don’t think I’ll bother with Sky because if I can’t find anything on 50 channels then there’s obviously nothing I want to watch.”

Facebook Community Leader

Choice of technologies can blind people

With such a proliferation of technologies answering the same need, and many combinations of needs answered in one device, it will become increasingly difficult for the consumer to choose the right service or device.

All felt that choosing was becoming too complicated. For some, this ever-increasing choice could become too much, and these consumers may decide it is easier not to choose.

OVER-RELIANCE

Modern life is underpinned by technology

Everyone we spoke to articulated how central technology was to their lives in delivering communication, information, and entertainment, and that the right equipment was necessary to participate in modern life. Although well aware of the upsides, being so reliant on technologies left many feeling slightly nervous.

Over-reliance on technology can be precarious

There was a feeling among consumers that they were over-reliant on technology, especially on mobile phones - without them they would be lost. For example, consumers no longer made hard and fast plans or remembered phone numbers.

"If I lost my mobile and I needed to contact my husband, even if somebody offered me their phone, I wouldn't know his number!"

Domestic Tech Goddess

Consumers realised that devices were not indestructible but depended on them nevertheless. Only those who had experienced the precariousness of electronic existence realised the risks associated with such dependence.

KEEPING UP WITH THE JETSONS

'Tech savvy' consumers considered technology and its use to be central to society, and to a person's inclusion within it. Because of this, most did feel a pressure not to be left behind. For others, technology was a fashion statement and there was a pressure to keep up with those around them.

"I chose it because it looked good... If you have a brick you get bullied."

Teen Boy

Keeping up-to-date has downsides

Learning about which technologies to purchase, and how to install and use them, requires time, effort and money. Also, more services can mean more bills and more providers to manage. When looked at in this way, consumers felt technologies were making their lives more complex and that this was only likely to increase with an ever-expanding list of 'must-have' technologies.

POWERLESSNESS

People can feel powerless to resist the pace of change

There were complaints that the market itself coerced consumers into upgrading when they perhaps did not want or need to. Some people felt powerless in the face of "the inevitable" while others did not feel the need to be part of the crowd.

Social convention lags behind developments

When consumers choose to adopt a new technology they invite the changes it brings. However, when a technology is adopted by many, they lose control over how it is used. When many people use a technology in a certain way, social convention and expectations can change as a result.

In order to fit in, consumers felt compelled to respond to these changes. These imposed changes left them feeling powerless, a feeling they resented.

“When I’m free to do things myself that’s my choice, but when [choice is] taken away from me then I don’t like it.”

Domestic Tech Goddess

As new services or devices emerge it takes time for people to work out the social etiquette of use without putting others in uncomfortable situations. There is a time lag between a technology’s emergence and the time it takes conventions to adapt. During this period received social convention can jar with new technologies, which can create real-life dilemmas.

“If someone at work asks you to be their friend on Facebook you can’t say no ... can you?”

Domestic Tech Goddess

Some found this uncomfortable, especially if work colleagues were able to see photos and comments from friends.

“It’s like having all your mates and work colleagues in the pub at the same time... You wouldn’t want that, would you?”

Facebook Community Leader

Equally, as technology is taken on by others its collective impact can change social standards. For example, the introduction of mobile phones and email has altered conventions at work. Many consumers talked of it now being expected of them to receive work calls out of hours or check emails when on holiday. Consumers felt they must go with these new social standards, however uncomfortable they felt.

MONEY MATTERS

More to buy means spending more

Cost was the biggest downside caused by the pressure to keep up. When consumers focused on cost, many articulated the feeling that the market was pressuring them to keep up in order to make money. There was a common belief that developments were engineered to part consumers from their cash.

“You know we could have better phones now... They’ve got them in Japan, haven’t they? They just want us to buy a new one each time, that’s all.”

On Demander

It is not easy to keep the best tariff

Some consumers mentioned their frustration with how difficult it was to swap service provider, even if another provider was offering a better rate or tariff. Consumers felt that the many phone calls and amount of time and effort needed to change providers was just not worth the hassle.

The illusion of ‘free’

Consumers felt that since they had paid for a platform that provided services, the services were as good as free. This illusion of ‘free’ can lead the consumer to believe they are getting a better deal than they actually are.

For example, phone and broadband ‘bundle’ packages use the illusion of ‘free’ when they offer one service as ‘free’ if you purchase another. Consumers believe they are getting something extra or ‘on top of’ what they would normally pay when in fact they are paying for both.

Many consumers did not monitor how many calls and texts they made or sent on their mobile phone because their contract offered them ‘free’ calls and texts. In many cases this led them to go over their ‘free’ limit and pay more each month than the contract deal.

UNDER THE SPOTLIGHT

In this section we meet some of the people we spoke to. In each of the pen portraits we explore which services and devices each typology uses, their relationship with different technologies and their attitudes towards them.

TEEN GIRLS AND BOYS

“I use technology all the time but I use everything at the same time... My phone or the computer, MSN, TV.”

The teenagers we spoke to were aged between 15 and 17 and, although they were from mixed backgrounds, their lives were very similar - they went to school, did their homework and hung out with their friends.

Teens take new technology in their stride. They have hardly known a world without mobile phones and the internet and, though aware of the fast pace of change, they do not find it intimidating.

Although new technology is unremarkable to teens it plays a crucial role in their social and individual identity. They feel pressure to have the latest technologies, with personal devices such as mobile phones, MP3 players and PSPs, seen as status symbols. They are aware that this pressure also exists for their younger siblings.

“My brother’s in year 7 [aged 11] and he’s just bought a phone that’s better than mine.”

Teen life is all about sociability so those services that provide communication are the most important. MSN is especially so, as it provides free and instant communication which is not just one-to-one. It is a place where they can chat when they are bored and organise to meet up later.

“A lot of people would be upset if MSN disappeared. There’d be crying and everything.”

Use of social networking sites is ubiquitous among teens, although the site they use depends largely on which one is cool in their area. Adding new people as friends on MSN and social networking sites is the norm, but these friendships tend to go no further than chatting online. Most only speak to people who know a friend of theirs. However, both MSN and social networking can be used as a popularity contest and there were comments that some teens can become obsessed by them.

"It's like if they're not popular in school they try and be popular on the internet."

"With, like MSN and Bebo and that, some people spend all day on there. They get full on addicted!"

Teen boys are much less concerned about online privacy than teen girls. Teen boys see it as their responsibility to avoid being bullied or laughed at by being careful about what they put up. However, teen girls are very aware of the security dangers online and the need to protect themselves from strangers with bad intentions. They are also more sensitive than teen boys about their personal privacy. Most set their profiles to private and will only accept people they know as friends.

"My brother's friends have added me on MySpace. I don't want to be mean but I don't want them reading through my MySpace page."

Teens use their mobile phones as a portable entertainment device, which carries their music, their videos (home-made or downloaded) and their photos, all of which they can share with their friends for free via Bluetooth. However, texting and calling are still the most important functions. Although many teens are on Pay-As-You-Go to save cost, they are so used to the convenience of their mobile phone that they will use it even when close to a landline.

"If the number's on my phone I can't be bothered to put it into the other phone."

Many have tried to video call because they think it would be fun but they found it too difficult to set up. They think internet on the mobile could be entertaining but it is too expensive for them.

"I'd use it if it was free, if I was bored in a lesson."

Teens have plenty of time to search the internet for audiovisual content and have no qualms about downloading it illegally. Illegal audiovisual websites are more popular than legal VoD websites, primarily because teens are just more used to illegal sites as they were using them first. They use them to watch shows or films that they have missed or that have not yet been broadcast. Only some upload videos to YouTube but nearly all teens watch clips to pass the time.

“I watch stuff when I’m supposed to be doing my homework.”

TV still provides social currency and as such plays a vital role in a teen’s life. However, which package they have is down to their parents and if they have a TV in their bedroom they can often only receive ‘terrestrial’ channels. Teen girls are more likely to have ‘appointment to view’ programmes and therefore follow the schedule or use a PVR to record. Overall however, TV does not have the primacy it used to.

Most teen boys and teen girls own a games console and teen boys especially are into gaming in their younger years. As they get older though, it becomes just another activity to choose from.

“I used to ask for games consoles but not so much these days.”

“I take my Nintendo DS with me on long journeys.”

Communications technologies help teens with their schoolwork. They use the internet at home for homework and make use of many revision websites. However, for those less inclined to work it can have its downsides.

“If you haven’t done [your homework] you can’t have an excuse, ‘er, I haven’t got a computer’... They wouldn’t believe that.”

TECH SOCIALITES

“Facebook, I love it... It’s just socialising on a computer.”

‘Tech Socialites’ are generally women in their late teens to mid thirties. They are your average British woman who likes to keep up with their friends.

‘Tech Socialites’ use communications technologies to manage and enhance their social life. They adopt new services and devices in order to keep up with their peers, rather than to keep up with technology itself.

The most recent communications technology to create a buzz among their friends is social networking, particularly on Facebook. Although some had a MySpace page before, the fact that suddenly all their friends were on Facebook was the driving force for signing up.

“It seems with Facebook literally everyone is on it... Before that I was on MySpace and I never used it because I didn’t know that many people on it.”

‘Tech Socialites’ value the capacity that social networking offers them to keep in touch with friends far away or to find friends from long ago. They also use it to send messages or leave comments for the friends they see all the time. Having all their friends ‘in one place’ is seen as highly convenient. It promotes a level of engagement which makes it a reliable communication channel.

“You’re not rushing around, getting a text and thinking ‘I’ll reply to that later’ and then you don’t because you forget. On [Facebook] you’re checking your messages with the purpose of replying.”

Social networking is not just a way to communicate. ‘Tech Socialites’ love how they can share photos with their friends online. They can display their photos to those who are in them who can then tag them and put them on their own page. Far away friends or those from long ago can also find out what is happening in their life. This works the other way too, with many spending hours on the site checking out others’ photos to see what they have been up to.

“When I look at someone’s pictures [I haven’t seen for ages] I can work out what they’re like ... someone will have, ‘We went to The Event on Friday night’ ... well, you can work out they’re that sort of people ...”

Friends are very important to ‘Tech Socialites’ and social networking is not only a way to keep in touch with their friends - it is an activity they can share with them too. The fun applications and the ability to join groups give them the opportunity to be entertained and have a laugh with their friends. It is a social phenomenon, rather than merely a new form of communication.

However, direct communication is valued greatly by ‘Tech Socialites’. They cannot do without their mobile phone as it is a constant connection to their friends.

“I take it to the toilet with me... I leave it on the side when I’m washing up... I just have to have it, to be available to everyone all the time.”

A mobile phone lets them organise their social life on-the-go with a quick call or text. A camera phone also benefits their social life - it records fun times with their friends when they do not want to take a digital camera out.

“Something amusing always happens when you’re going out drinking so you think ‘I’ve got to get that.’”

‘Tech Socialites’ browse the internet on their computer for information and go on YouTube and illegal audiovisual sites if their friends tell them about a funny clip or show. However they use the internet mainly for communication and shopping. If they are on the internet for information they will more often than not check their social networking page at the same time. Interestingly, they see a fundamental difference between social networking and blogging as they feel the former is for and between friends.

“I think that’s a really weird thing to do [blogging]. My friend does it. He writes about his life for everyone in the world! You don’t know who’s reading... And it’s so vain!”

Although they would have looked down on gaming as a ‘sad’ thing to do in the past,

the modern consoles that offer a more social and active experience are starting to have appeal. As with the way they use other technologies, for 'Tech Socialites' gaming is all about having fun with other people.

"I do like the Wii... Everyone gets their go rather than two people sitting there staring at a TV."

TECH HOBBYISTS

“From a social perspective, sooner or later one of your mates will get the latest thing and you think ‘that looks all right’.”

‘Tech Hobbyists’ tend to be men in their mid-twenties to late thirties who are unmarried and living on their own. They tend to be well educated and have a decent disposable income.

This group likes to get the best out of the technology they have. They do not buy technology magazines to find out about the next big thing but when they hear about a new service or device they will be interested in what it can do. They are the most advanced of the ‘tech savvy’ consumers.

‘Tech Hobbyists’ tend to use a lot of technology for work or even work within some form of technology industry. Many have a work mobile phone and laptop. As the technology is 24/7 they find that their work is starting to be too. While some avoid this by turning their work phone off at the weekend others feel that work expects them to be contactable at all times.

“I’d rather not have that conversation with my boss. I don’t think I can afford that [turning mobile phone off]. It’s just the culture we’re in.”

They like to use technology to get the most out of their relaxation time and so own the latest TV technology. Most have a premium TV package and some have HD-ready TV sets and HD channels as they appreciate the added quality. However they are conscious that the programming is not quite there yet.

“I’ve got HD BBC, it’s just a question of whether you want to watch it. I mean, ‘Last of the Summer Wine’!? You’ve got HD and you’re watching that!?”

Although many ‘Tech Hobbyists’ have PVRs as part of their TV package they like to choose their own content and thus download or stream content from the internet. They are the only group who have found out how to create a home network and who use it regularly.

"I don't think I ever turn the home laptop off. Rather sadly it's next to the TV. I have my media in one place, connected up. I play films though the laptop and TV a lot. I rarely use a DVD player. The Xbox 360 does HD output too which is why I bought it."

Some 'Tech Hobbyists' regularly play on games consoles and online gaming has brought a whole new perspective to the activity. They enjoy the freedom of being able to play against people from all over the world at any time.

"It was a totally new experience for me. It's just the randomness. I was playing against some guy in Japan or America the other day."

'Tech Hobbyists' know all about which mobile phone model has the best functions and they like to make the most out of functions they find useful. They use Bluetooth on their mobile phones to send videos around their friends and they use mobile internet occasionally to check things like the football scores. They see the camera phone as being useful when you would not want to take out a digital camera.

However, despite being the most technically advanced of the consumers we met they still will not adopt a technology simply out of curiosity. They felt the mobile phone had some add-ons with little purpose. For example, they do not see the point of video calling.

While 'Tech Hobbyists' are genuinely interested in how technology can help them in their lives, they also felt that, to a certain extent, they needed to keep up with it.

"At the end of the day technology will always come and bite you on the arse. If you don't keep up, you're screwed."

GLOBAL CONNECTORS

“With the way society is today the family unit isn’t so close anymore. The best way to communicate with them is through your mobile and online.”

‘Global Connectors’ are less defined by their demographic status and more defined by a need. They can be either male or female and can be nearly any age. They can also be from any background. Those who do not have access to the technology at home will take advantage of internet cafés.

Communications technologies help ‘Global Connectors’ to keep in touch with friends and family abroad. Often they have family or friends who have emigrated or are expats themselves, while others have partners who work overseas.

The variety of communication services available means they can choose the method that suits them best, using different methods to get in touch with different people in different situations. Most use email to keep in touch with more distant family members, and use social networking for their younger friends. However, for close family or friends they want the intimacy of a phone call. As calling abroad can be expensive, many use Skype as a cost-effective way to speak to their loved ones. Used with a webcam it offers an even closer experience than a phone call.

“We’ve had it for years to speak to my family in Spain. It’s much cheaper than a landline.”

“I even have rows with my husband online. We had an argument on the webcam the other day and he turned it off!”

However, ‘Global Connectors’ accept that Skype is not hassle free. It needs to be installed and equipment needs to be bought. For it to be free, the other party must also set themselves up and in many cases this does not allow for spontaneity as the other person must be online to receive a call. This lack of simplicity and convenience can often put off the less ‘tech savvy’ consumers and is seen as the reason why Skype is not more prevalent.

'Global Connectors' need not be at a computer to communicate cheaply with their loved ones abroad. Texting allows them to communicate when they are out and about too. They can even share the experience of an event with friends in another part of the world as it is happening.

"When I was watching the rugby I was texting back to my friends in South Africa the whole time."

The internet plays a huge role in the life of a 'Global Connector'. It is a meeting point for them and their loved ones as well as a shared shopping mall, information point and notice board. It helps them to make joint decisions on a purchase, for example by enabling them to look at the item on a website when discussing it. For those who have many loved ones scattered around the globe, it can be especially helpful when organising a big day.

"Nearly all of our guests were coming from abroad so we had a wedding website. We used it to put up accommodation, times, wedding list... And then afterwards we put the photos up there."

Many people become 'Global Connectors' when they go travelling and start to use the internet more to keep in touch with those back home. A common format now is the travel blog which travellers use to keep everyone updated on their travels.

"My cousin has one of those. What's she called it? Getjealous.com! It's brilliant, isn't it?"

There is one downside that all 'Global Connectors' recognise as a consequence of instant communication - the demise of the letter.

"Nobody writes you letters anymore. I have one friend who still does and I get so excited when I get them. You can sit down with a coffee and enjoy it".

TECH BLOKES

“There was the beautiful time when you could go down the pub and switch off for a few hours, incommunicado.”

‘Tech Blokes’ are aged anywhere from 25 to 45. They come from a mix of backgrounds although they tend to be educated and employed. They also tend to be family men.

‘Tech Blokes’ enjoy the convenience that communications technologies offer in their everyday lives. They look to technology to provide entertainment and distraction from the stresses of family life. What type of kit they have is often a source of pride. Having a good TV and hi-fi system, for example, are important and they would love to have the latest TV services. However, as men with responsibilities, the cost of new technologies must be rationalised.

“I’ve just got Sky but I want the HD version. I want a 28 inch tube but I can’t justify it until my old one is broken.”

‘Tech Blokes’ all have a PVR. As family men it allows them greater flexibility. It means they can pause a programme if they are doing something with the kids and then watch it when the kids are in bed. They cherish their relaxation time in front of the TV and so appreciate the chance to always have programmes that they want to watch, available to watch when they want.

“I’ve got Sky+. In terms of tech and TV it’s the best thing ever... People say it’s life saving! Setting a video isn’t hard but you forget and this does it for you.”

‘Tech Blokes’ tend to be into their sport and, as it is such a big part of their leisure time, the sports channels on offer are a main reason for many signing up to TV packages. Some have premium sport packages but there is disagreement over their value. Others just use pay-per-view for the big sporting events.

Some ‘Tech Blokes’ also unwind by playing on games consoles. Often they have their friends round to play for an evening too and some find the prospect of playing against others around the world attractive. Again, cost is a consideration as they

cannot justify the latest games console as a necessity.

“I’ve got a PS2 but I want a PS3 ‘cause you can get Blu-Ray. They are expensive and it boils down to money. I might try and convince her in the sales.”

‘Tech Blokes’ use the internet to save money on certain purchases. They buy technology, holidays, flights, train tickets, books, CDs etc. online. They tend to stick to well known sites such as Amazon and Play.com because they are wary of compromising their internet security. When making a big purchase they make sure to search for the best price through price comparison sites and can often get a real bargain.

“Through Pricerunner I found that one store said it would match the price of other stores. I then found a store that had the TV down as £599 instead of £999 and they had to match it!”

Many got the internet because they felt it was necessary for their children’s development. Those with older children feel it is essential to have for their schoolwork and to help them obtain skills that will be of use in the workplace.

Those with young children also think it is important for them to get used to the internet and computers, and will go online with them to play games.

“I got it for the kids as that’s the way forward these days. I was a bit of a Neanderthal but my little girl’s five and it’s better for her to get into it as early as possible.”

All ‘Tech Blokes’ rely on their mobile phone to the point where many do not use their landline. Some listen to music on their mobile phone while others do not have the time. Those with kids use the camera to capture family moments in photos or videos. Some use Bluetooth but few use the mobile internet as they think it is too expensive.

Although ‘Tech Blokes’ enjoy reaping the benefits that communications technologies bring to their lives, they sometimes wonder whether these services and devices are making their lives more complicated.

“You have no time to say, ‘I’ll speak to so and so’ and call you back tomorrow. Everything has to be done today.”

RETIRED BROWSERS

“In a way, it’s more important for older people to embrace technology than it is for younger people...It opens up your life, there’s no doubt about it.”

‘Retired Browsers’ are either male or female and generally from an upmarket background. They are aged between 60 and 70 and may or may not have grown up children.

‘Retired Browsers’ are busy people. They have hectic social lives and commitments to family and communities. Technology helps them to maintain these commitments and to remain an active part of society. For them, technology is not a chore as they no longer need to use it for work. It is therefore highly valued and a great pleasure.

“I found it quite amazing, since retiring and not having to use all these things [at work], at the amount that I do. And all the things are very emotive. They’re all to do with communicating with friends, family, my brother in Australia, my daughter. All these things make me happy... It’s lovely!”

They do see downsides to technology. Invasion of privacy is a big fear and the extra communication channels for marketing are an annoyance. They are stubborn in their refusal to use things they think carry risks and are not so susceptible to peer pressure.

As active people, it is important to them to feel young and not out-dated. ‘Keeping up’ with technology is their way of saying ‘I’m not over the hill yet’ and is a source of pride and self-expression. However they admit they can find new technologies daunting at first and sometimes be stubborn about adopting them.

“There’s a stress curve that you go up when you get something new... And then when you’re used to it, it’s OK.”

They see the benefits that technology brings to their lives and recognise the potentially greater advantages it will offer as they get older.

‘Retired Browsers’ never leave home without their mobile phone, although some

admit they were hesitant to use one at first. The women especially appreciate the security it brings. They use it mainly for calling but they also enjoy the freedom and flexibility that texting brings. It allows them to get in touch in a hurry and not end up on the phone for hours.

A few make use of more advanced functions like the internet but only for time-specific information like the football scores. And a few use their Bluetooth to back up their contacts or connect to GPS in their car. Those with newer phones use the camera to capture family moments but others are happy with phones they have had for years.

“(Mobile phones are) so small now. I wouldn’t be able to see the numbers if I didn’t have my glasses on!”

The internet is an important part of their lives. They have an area in the house dedicated to the computer and emails particularly play a big role.

It means they can keep in touch with family and friends abroad, when in the past they had to rely on the post. They feel it’s necessary to have an email address now to be part of society.

“I love email. Every morning I check them straight away and I think ‘oh, what messages have I got?’ It’s so lovely... And you can send pictures... That’s really lovely!”

They surf the web for information such as maps and theatre listings and they relish finding deals and bargains that they would not get on the high street. They are not so sure about the ‘web 2.0 revolution’, however. Putting pictures online, social networking and blogging were thought of as suspicious.

“Why would you want to put yourself out there? It’s our private world. People are so naïve with all the information they give out.”

The TV is important in their lives but they remember a time when it was more important.

“TV used to be king. Now it’s just a low grade prince. We’re so spoilt for choice that people are opting out and being more selective.”

They remember a time when you knew what was on without having to look at the schedule, and you knew everybody else was watching it too.

“We all knew tomorrow we’d be talking about it, it was an event. There isn’t enough of that experience of togetherness, of experiencing it together.”

On-demand, VoD and interactive services do not appeal while pay-per-view is seen as a rip-off. Cost is an issue for TV packages, with extra channels only being seen as worthwhile for sports fans.

‘Retired Browsers’ like the radio - in the car, in the kitchen, or to listen to in the evening with a bottle of wine. Some have DAB radios and some listen through the TV. Radio online was only required in certain, niche situations.

“My cousin was here from Derby so we listened to Derby radio through the computer to get the football commentary and listen to the phone-in after the match.”

THE NEAR FUTURE

This chapter's focus is on how the 'tech savvy' might actually use technology in the near future. It is important to note that by 'near future' we mean the next three to five years.

Before we head off into the future

The success of past and present - and presumably therefore future - technological developments have been determined by how those developments meet universal human needs and satisfy these needs, while causing minimal disruption to people's everyday lives. In the following sections we focus on two technology changes that emerged in discussions with consumers - convergence and on-demand.

CONVERGENCE

Defining convergence is a good place to start

It became clear from our conversations with both 'tech savvy' consumers and professionals that convergence can be defined in different ways. We have identified three distinct definitions that have different impacts on the consumer. These are:

1. The existence of many functionalities in one device
2. All functionalities in one device being of the highest quality or 'best in class', with the device having no primary purpose
3. The ability to link separate devices together, best understood as 'integration'

We have applied these definitions to two different locations - the pocket and the home.

CONVERGENCE IN THE POCKET

Converged portable devices are already here

Looking at the simplest definition of convergence - the existence of multiple functionalities in one device - we can say that convergence is already a reality. Most people in the UK own a converged portable device: the mobile phone.

There was little choice to be made on the part of the consumer as to whether they wanted a mobile phone that was converged. Manufacturers have built in added functionality. For the consumer, it has meant no added cost or effort and they can choose to ignore the added functionality if they wish.

Convergence and portability go hand-in-hand

The very essence of a mobile phone is 'convenience on the go'. It fits into the rhythms of consumers' lives and allows them to fulfil unexpected needs.

"I've got pictures of my little cousin just after she was born and no one had a camera. We wouldn't have those pictures of her at an hour-and-a-half old otherwise."

Content Generator

The more unexpected needs a device can meet, the better. Consumers have embraced converged mobile phones because they offer multiple conveniences.

Current converged portable devices retain a primary purpose

A mobile phone is still called a mobile phone for a reason. It is still primarily a tool for communicating. The extra functionalities and convenience it can offer are not integral to the device and the needs that it meets.

"In general the communication channels are most important... The other things are bolt-ons and treats."

Tech Bloke

People want more than one portable device

'Tech savvy' consumers are wary of devices that do not have a primary purpose.

There are four main reasons for this:

- Wanting 'best in class' performance - Those we spoke to wanted to fulfil their needs with the best device for the job. Camera phones were not seen as a replacement for a digital camera, as they were perceived as being of lower quality. Also, it was felt it was better to watch a film on a large flat-screen TV than on a laptop screen.

"My phone has got an MP3 player but it only holds about 20 songs... It's rubbish so I use my iPod a lot."

Teen Boy

- Increased risk - Over-reliance on a device is magnified when all functionalities exist in one place. Using different devices for different tasks spreads the risk of losing a single converged device (and the possible content on it). Also, it avoids having to replace a device because one function stops working.

"I wouldn't want to carry something around like that at the risk of losing it... And then it's got everything in it so you've lost everything!"

Facebook Community Leader

- Keeping 'worlds' separate - Only having one device for all functionalities would blur the different parts of consumers' lives. For many people, taking photos at a wedding with the device that they carry around all day, regardless of the quality of the pictures, would not reflect the appropriate sense of occasion.

"[People] break up technology, they use this technology for this, and that technology for that."

Prof. Nick Couldry

- Cost - Consumers worried, and professionals confirmed, that having 'best in class' functionality in a miniaturised converged device would be prohibitively expensive for most.

CONVERGENCE IN THE HOME

Overall, confusion surrounds what home convergence means for people. Many consumers could not visualise what it might look like and offered a number of different possibilities, which failed for the following reasons.

A fully converged home device is not desirable

Converged devices can work if the same need, such as entertainment, can be satisfied in different ways, for example, an X-Box with DVD functionality. However, people resisted home convergence because a device that encompasses television, internet, audio and phone ignores the zones that people create within their home for specific purposes and symbolic values.

“We’ve had this idea that consumers will control their whole house through one computer, but it only appeals to the top 5%, the techies.”

Benjamin Ensor, Forrester Research

It is not seen as practical either

Those in family homes saw practicality as a barrier. How would they use different functionalities simultaneously? Would a family of five need five of the same converged device? If so, how much would this cost?

“What if someone’s sitting on the phone, someone wants to get on the computer and someone else is listening to music?”

Content Generator

The exception was single men. Their living arrangements - often living alone in fewer rooms - meant that convergence was practical and desirable.

There is a converged home device already

As with mobile convergence, converged home devices already exist. Computers provide audio, video, internet, games, telephony etc., but people still tended to see

computers primarily as practical devices. A few of those we spoke to, though, were using the internet to consume audio and audiovisual content.

These consumers praised the internet for giving access to 'free' (often illegally downloaded) content as well as music content from legal download services such as iTunes.

Overall, the experience of watching audiovisual content on a computer screen was seen as a step down from watching content on television. While the internet can provide video entertainment it is not 'best in class'. In the future, as the quality of audiovisual content on the internet improves and bandwidth increases, entertainment over the internet may be accessed more commonly in the front room.

Integration is appealing, though

While a fully converged home device was not desirable, many consumers saw the benefits of linking their separate devices and already did so. For example, if they wanted to watch a DVD on a big screen and did not have a DVD player, they linked their laptop or X-Box to their television. Music on a laptop or iPod was commonly played through their hi-fi to get a better sound. For these consumers it was about using the best features of one device to enhance another.

Integration must serve a purpose

"I guess it's born out of need. If you think 'I want to have my MP3s through my hi-fi' then you work out how to do it."

Dan Grabham, tech.co.uk

'Tech savvy' consumers were happy to integrate two devices with a cable to serve a specific purpose such as watching a downloaded film on a big screen. However, they did not see it as a permanent arrangement and would not want to integrate devices for all purposes, such as searching for a holiday online using their television screen.

Consumers could appreciate the potential benefits of a wirelessly integrated home network as it would allow them to use their devices both separately and together.

However, a fully integrated home network was also subject to the same fears and barriers as a fully converged home device.

“If there’s an element [...] that you can still choose what’s merged then that would be good.”

Facebook Community Leader

ON DEMAND

There was opposition to the idea of no schedules

While most of those we spoke to saw benefits of on-demand content being available as an option, there was resistance to the concept of no TV or radio schedules at all.

Programming schedules form part of our routines

TV and radio schedules signify certain times of the day, days of the week and times of the year. They provide milestones that consumers use to order their lives. Breakfast television, for example, heralds a new day.

Social diaries also depend on programming schedules. Those we spoke to talked of congregating around content, e.g. having friends over to watch a sporting event or the result of a reality programme’s public vote.

On-demand does not remove time from the equation

Though on-demand provides more choice of what to watch or listen to, it should be remembered that people do not have more time to watch or listen. In fact, some consumers felt that it took more time to browse for on-demand content than to find something to watch live.

Some content has to be live to have value. Sporting events are the most obvious example. Other content also relies on the suspense inherent in live broadcasts e.g. ‘Big Brother’ eviction night.

While some of those we spoke to enjoyed being able to watch a whole series of a programme like 'Lost' in a weekend, others savoured the suspense built up in between programmes. For them, scheduling played a key role in their enjoyment of a show.

There were fears the 'watercooler moment' might disappear

There would be no more "Did you see 'The Sopranos' last night?" These shared cultural reference points constitute a form of social glue which consumers fear may be lost in an on-demand world.

"The reason the TV and the radio schedules are so successful is that they are linked in to sociability. People have to have something to talk about at lunchtime."

Prof. Nick Couldry

The feeling of a wider connection to the world could be lost

TV and radio provides a connection to the wider world in two ways. Firstly, these platforms report real world events and inform people what is happening down the road or around the globe. Secondly, the schedule reminds people that the day is going on elsewhere with the knowledge that others are watching or listening to the same show.

"The telly means there's stuff going on out there...it'd be a bit lonely if it didn't."

Domestic Tech Goddess

On-demand is good in some situations

Despite the importance of schedules, those we encountered in the research saw value in on-demand content being offered. Most could imagine scenarios when it would be of use to them. Some already benefited from services such as 'Listen Again' or television catch-up services, and appreciated the flexibility it offered or the chance to access niche content they may have missed.

Resistance to on-demand was greatest when it was seen to replace or overshadow schedules or remove their desire to browse.

WHAT DOES THIS ALL MEAN?

Remember, it's all about needs

Rather than begin any appraisal of a new technology or service by looking at its capabilities, it is more instructive to place people at the centre of any analysis and to think about: how, when and where people will use it; what they will use for it for; and how they will feel about it.

There's a pressure to keep up

It is clear that the technology market is fast-moving. Consumers hear about new developments from their friends and see technology in the 'public space'. This creates a feeling for some that it is pushed upon them.

Consumers feel the individual gain outweighs the changes to society that technology brings, and they note the benefits of new services or devices that are brought into their lives. However, they also feel downsides - the blurring of the boundaries by which they make sense of their lives, and the contrast between slow-changing social conventions and fast-changing technological capabilities. They also feel powerless to resist the societal changes that are being visited upon them.

People react differently to feelings of powerlessness

These feelings of powerlessness affect people differently. While some opt out of the technological race altogether, most enter the race but do so at their own speed and in their own way. As the market moves ever more quickly and more services and devices are introduced, the complexity will only increase. As a result it is likely that society will become increasingly technologically diverse and fewer technologies will complete the Bell Curve.

More options make the technology landscape more complicated

With more devices and services come more choices and more complicated decisions to be made. Consumers may have to ask themselves whether a multi-purpose device

is as good as a device designed for a single purpose, or whether they choose hardware or software.

The difference between division and exclusion is key

If the emphasis is about keeping up with the latest technology what about those who are happy with where they are now? The broad assumption that those who do not use a certain technology are excluded is wrong. It assumes an unmet desire which may not exist at all. It will not be just a case of who can and cannot afford, or who does and does not understand certain services or devices - some simply will not feel a need to adopt a certain technology.

For example, in the past, television behaviour was determined by which of four channels people watched the most. Now we must take into account which television packages people have, such as: HD; PVRs; VoD; Freeview; cable; satellite; etc. The many ways these communications services can be mixed mean television behaviours are becoming more diverse.

Give consumers the chance to choose freely

The tyranny of choice offered by increasing complexity may serve to obscure a consumer's options from them. In the more complex future consumers will need to be able to exercise their choice. There are a number of areas to focus on and improve:

- **Clarity of language** - currently many consumers are confused by technical jargon which obscures the benefits of a service or device and discourages them from using that product. If consumers are to understand the benefits of new technologies these have to be explained in simple terms, including what they mean to their lives.

Of particular importance in a world where integration of devices will become more prevalent will be explaining how devices can 'speak' to each other.

- **Do not allow consumers to be locked-in** - free choice depends upon a consumers' ability to change operators, providers and devices with ease. Consumers often mentioned the 'hassle' of changing suppliers of services as a major barrier to switching.

Ensuring compatibility and interoperability is also key. Consumers should not be compelled to remain with one manufacturer because that is the only way devices can be integrated. This also holds true for peripherals such as chargers and memory cards. Incompatibility can only serve to restrict choice or increase costs to consumers.

Devices should not be restricted to services. In the case of iTunes, consumers should not be forced to choose between losing content that they have already purchased and own, or sticking with the same device in order to preserve this content.

Guard people's privacy and security

One of the key findings in this research was the concerns that 'tech savvy' consumers had over their privacy and their private data - particularly online and to a lesser extent on mobile phones. While few of those we spoke to had actually experienced breaches of their privacy, the concern was real. This stemmed mainly from the lack of control they felt they had over what happened to their personal data, along with a lack of knowledge of how to protect themselves.

As technology advances there will be more avenues through which privacy can be compromised. Already consumers can be found via their mobiles, their landlines and especially on the internet. Unscrupulous people or businesses are able to use information to hack, steal from, harass or market to, consumers. Thus, providing consumers with an easily understandable and publicly available set of guidelines on how to guard their privacy could help address this issue.

It's easier to regulate markets than people

Because the needs we have identified in this research are universal and timeless it is safe to assume they will not change. The way people meet these needs with technology will change. Since the needs will not change, the market should meet these needs rather than try and work against human nature. For example, the current impasse over illegal downloading of music can be seen as a result of a delay in recognising that it is difficult to stop people doing things that are simple, cost-effective

and do not disrupt their lives.

Ultimately, placing people's needs at the core of technological development remains the surest way to achieve a technologically advanced and satisfied society.

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