IPTV and the Connected Home

What consumers want from advanced TV services and the Connected Home

Research Study Summary

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1. Executive Summary

Home entertainment has evolved dramatically over the past 25 years.

Two decades ago, the average family would gather most evenings around a single household TV in the living room, and watch one of three or four broadcast channels. Today, that same family might have a TV in every room, and each family member be using them for something completely different; from watching one of hundreds of cable, satellite or digital channels, playing video games or watching DVDs or YouTube clips.

One thing remains the same however – TV is still a central part of our lives. And while cable, digital and satellite TV have vastly increased our viewing choices, we've largely remained tied to the broadcasters TV schedule.

The Internet is changing that. The combination of TV content and the interactive nature of the Internet, to deliver IPTV and the connected home, has opened up the on-demand market. It frees viewers to choose not only when they watch TV, but on which screen – TV, PC, mobile phone, and where – at home, on holiday or on the bus.

IPTV also expands the range of what's possible with TV. In addition to viewing video content on the TV, it can become a screen to view our digital photos or to make a video phone call. It also frees us from watching TV in the home; IPTV means we can take our content with us, wherever we go.

It's not to say that traditional broadcast TV is about to disappear. Two different viewing habits – broadcast and on-demand - have their own drivers for the TV viewer. Relaxing in front of the TV at the end of a long day, zapping between channels will remain just as important as downloading the latest episode of a favourite TV programme to watch on a computer, or phone or netbook. Indeed, most of us demonstrate a mix of those two behaviors split between active and passive viewing. How we watch TV at any given time is affected by a range of factors, from mood to social setting. The key change is that the mix of technology gives the individual the choice to watch TV as and when they like.

The purpose of this study was to understand what consumers want from TV and a connected home environment. The research was undertaken by Ericsson ConsumerLab, and surveyed advanced digital TV viewers in the UK, Sweden, Brazil and Italy about their TV viewing habits, and to find out about their attitudes and aspirations for TV usage in the future. This document provides a public overview of the insight which is designed to help inform operator and media providers strategies.

What is the 'New Home'?
For Ericsson, the New Home is place where consumers can watch what they want, when they want, and on any device they want. It gives people control, ease-of-use, and a seamless experience across all three screens in the home - mobile, TV and computer. They can time-shift content, watch it on-demand, transfer it from their digital video recorder to their mobile device, and use the same controls whether watching at home, on a train, in a pub, or wherever they are. It makes TV and other digital content personal, but also part of a community or network – people can share programmes, and chat and message while watching. Today, many technologies are available to achieve parts of this vision. Ericsson is helping bring them together to make the real 'New Home' experience possible.

2. Research Methodology and Scope

Objectives of the study
The objective of the study was to understand how consumers are using today's digital TV services, and to gauge their interest in and perception of more advanced IPTV and 'connected home' features.

The study was both qualitative and quantitative, and drawn from advanced digital TV users in five countries. In total, the qualitative element included 12 interviews in each country, a total of 54 households, and the quantitative element of 300 users from 4 of those counties (UK, Sweden, Italy and Brasil), making a total of 1200 respondents. For the UK this represents a quarter of the total UK populations, the early adopter market.

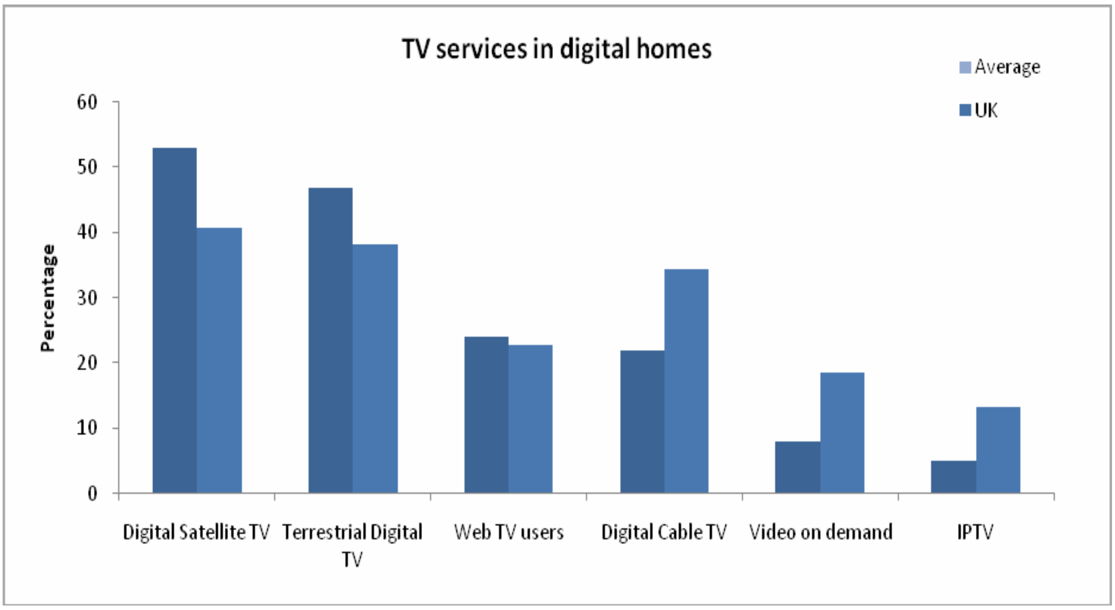
3. TV viewing Behaviour Today

To provide a baseline from which to study future changes in TV viewing behavior, respondents were asked about their TV usage. The aim was to understand current digital TV viewing habits, and how consumers use a variety of digital content devices around the home to supplement or replace viewing the main, household TV. The following tables provide a snapshot of TV usage across the studied digital TV viewers in the UK and against the average benchmark from the international group in the study.

3.1. TV services

In the UK today, IPTV represents only a very small proportion of TV delivery (see Fig. 1 below), although in the sample in Sweden it has secured over 23% of the digital TV market. The majority of respondents access digital TV content via digital satellite or terrestrial digital TV.

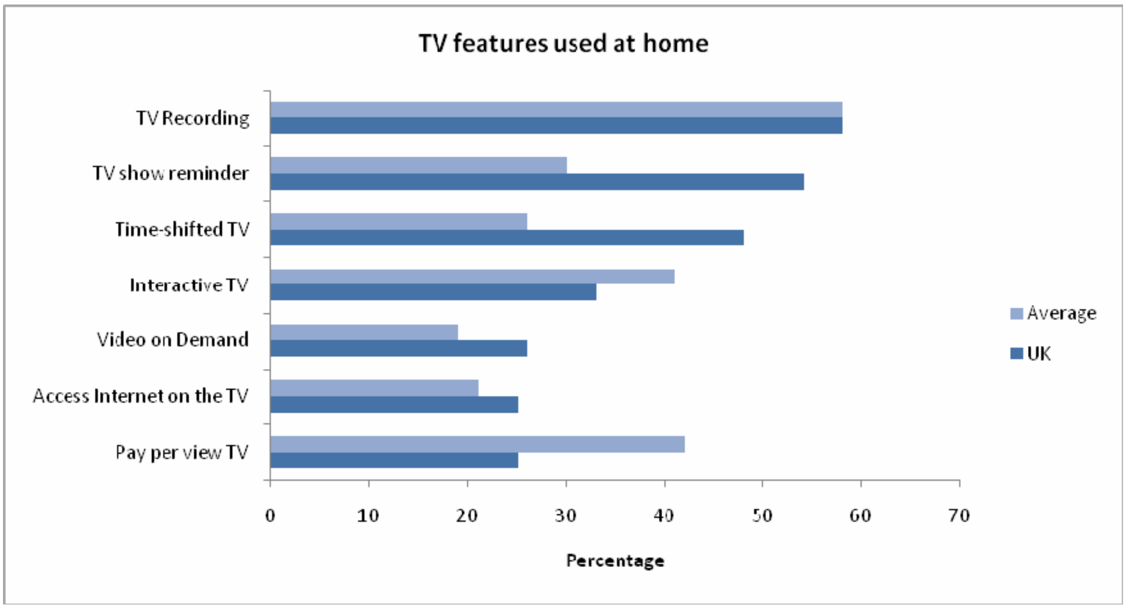
Figure 1 - TV services in digital TV homes



3.2 TV features used at home

The study looked at the range of digital TV features which are regularly used by respondents. After basic TV recording, the main features used by UK viewers studied are relatively basic TV reminders and time-shift features, the use of which are significantly higher than the international group average. UK viewers studied also use Video on Demand and Internet Access via the TV more than the international group average, demonstrating a relatively high level of technical ability and desire to converge media platforms.

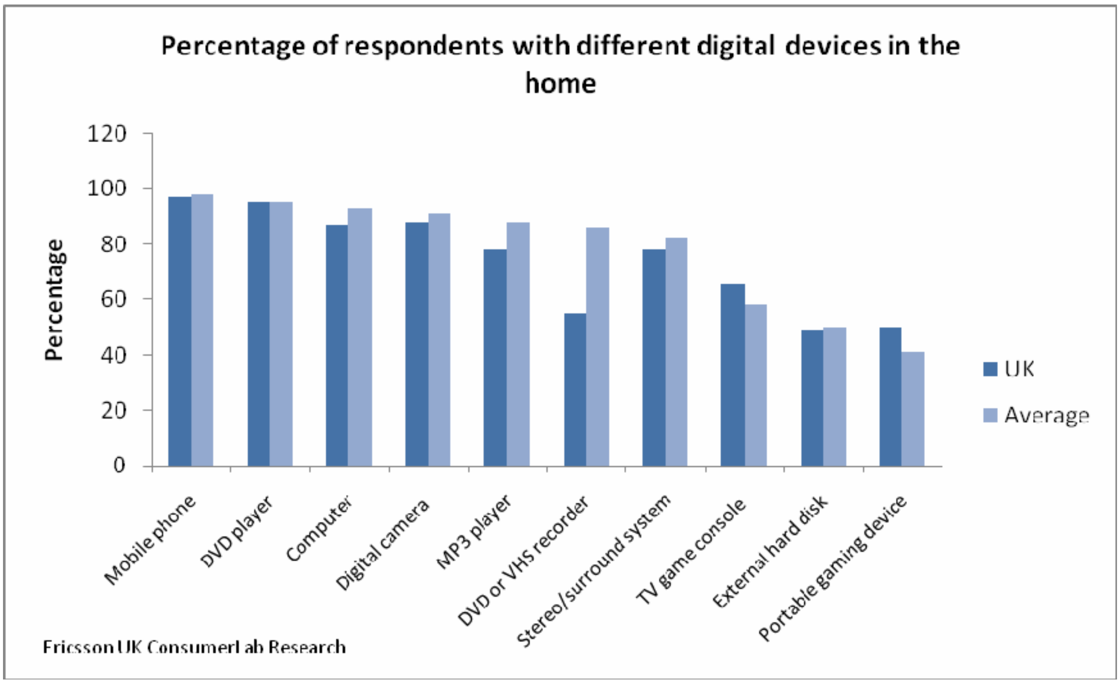
Figure 2 - TV features used at home



3.3 Digital content devices in the home

The study also surveyed respondents to find out how many devices they have in the home on which digital content is stored or consumed, in addition to the TV. The table below (Fig. 3) shows near saturation of mobile phones, computers, digital cameras and MP3 players, and a significant proportion of consumers already using external hard drives to store digital content.

Figure 3 - Digital devices in the home

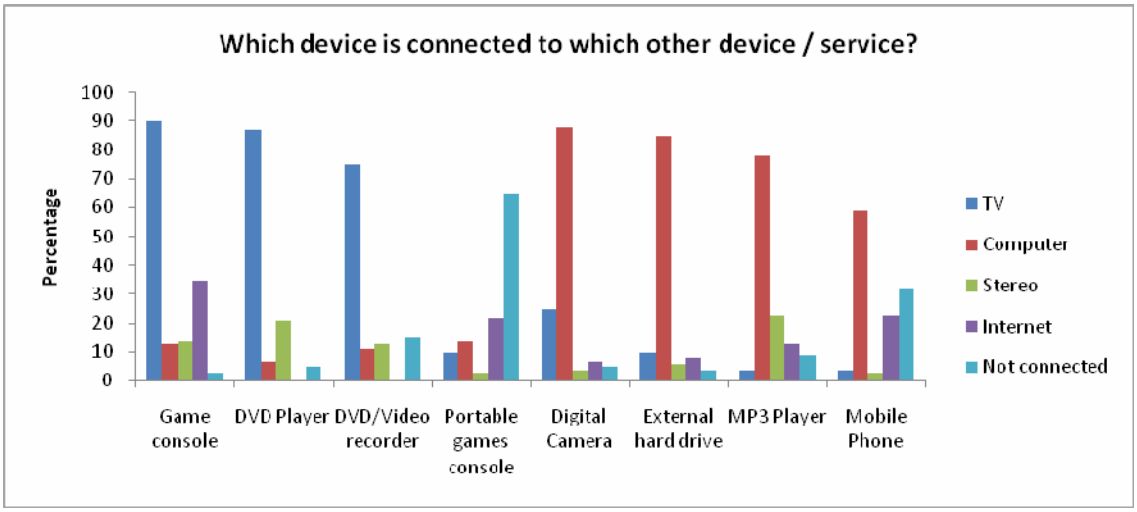


4. Making Connections

Which device is connected to what?

The broad range of devices available within the home shows there are many means of creating and accessing digital content. To better understand how digital media was used around the home, respondents were asked which of those devices were connected to either another device, or the Internet. The results (see Fig. 4) show how devices fall into two broad categories – TV-centric devices and PC-centric devices.

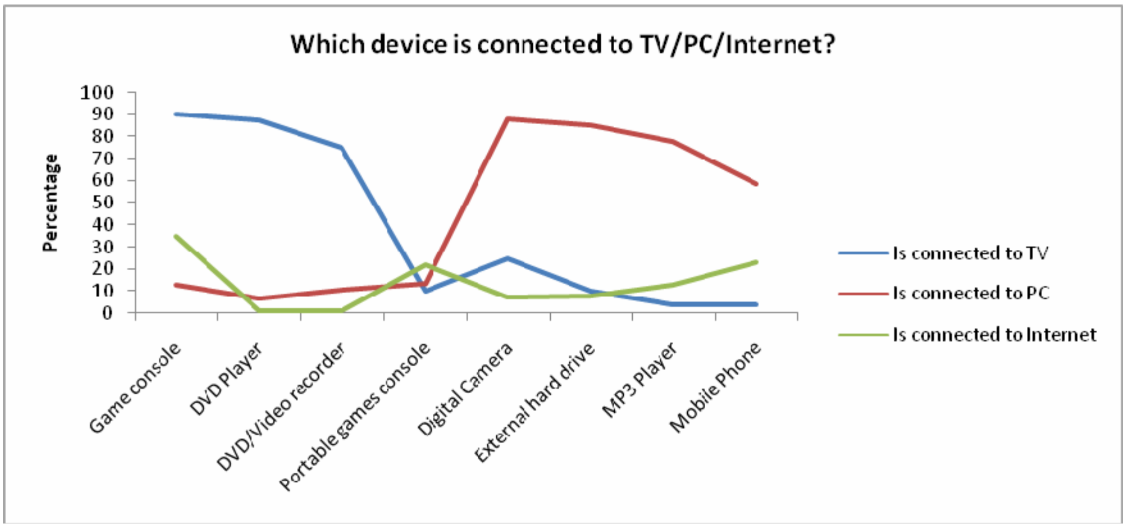
Figure 4 - Which device is connected to which other device/service?



4.1. Devices are TV or PC centric

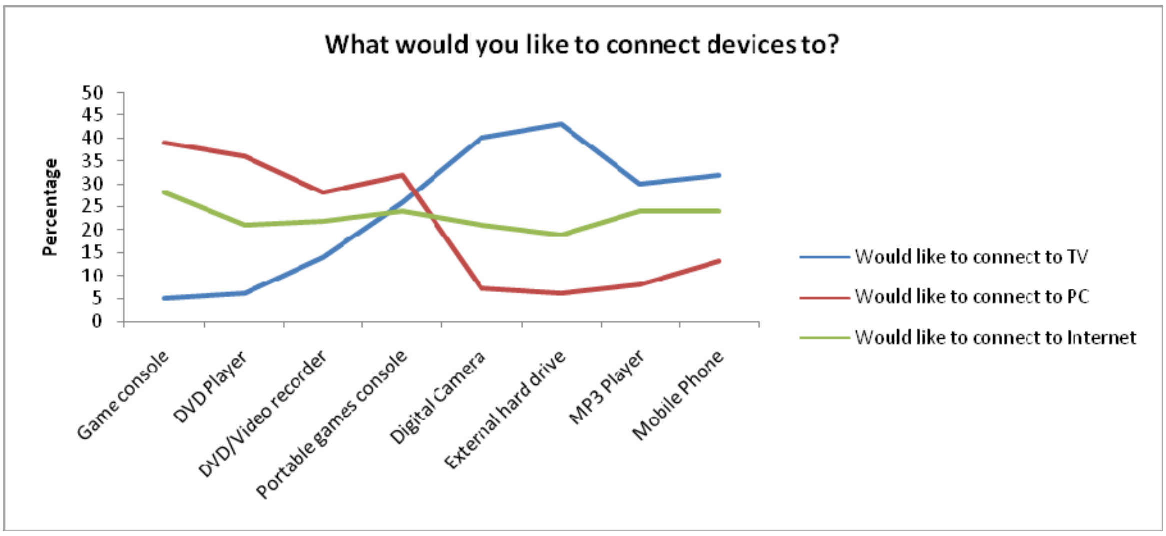
This trend is highlighted in Figure 5, where the same data is viewed by the three main connectivity options – TV, PC and Internet. Broadly speaking, the devices we currently use in the home have limited interconnectivity, and are focused on one screen – the TV for a games console, the PC for a camera.

Figure 5 - Which device is connected to TV/PC/Internet?



However, when respondents are asked which devices they'd like to connect, the pattern in reversed. There is a clear interest in connecting mobile devices to the TV screen, for having PC-based functionality on TV-centric devices, and significantly raised interest in creating internet connectivity across all devices.

Figure 6 - What would you like to connect devices to?



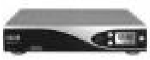
This feedback highlights one of the main opportunities for IPTV in an increasingly connected home; to make content available across all screens, and to deliver internet connectivity and functionality on all devices.

5. Connectivity in the Home

Many of these interconnections between devices are technically possible today, and while a growing number of people want the benefits of a connected home, only a few people have the know-how to achieve them. The qualitative phase of the study identified three main groups and stages of TV viewing evolution, as in Figure 7 below, the majority of people fall into the mainstream and early adopter profile, with only a small percentage of respondents demonstrating some or all of the Pioneer traits.

However, it is clear that interconnection milestones govern TV use. Respondents' TV consumption changes along with the technology options available to them. And once a milestone is passed, a habit is quickly formed which drives permanent changes in media consumption.

Figure 7 – user groupings and TV viewing evolution

TV	Connected to	User Type	User behaviour
	Digital TV 	Mainstream	• Watches mainly broadcasts • Records content on PVR (or VHS) • Uses text-TV or EPG for information
	PC 	Early Adopter	• Stream videos: BBC, SVT • Streams web clips: YouTube • Watches web-based VOD • Downloads content from web: movies, series • Shows pictures on TV • Uses PC to find information about TV content
	Mobile Phone 	Pioneer	• Transcodes video files for portable use on mobile phone or portable media player • Subscribes to video podcasts • Shows less interest in broadcast TV except for **live events**

To make the interconnectivity achieved by those pioneers available to the mass market will mean overcoming some technological barriers. Feedback from the study showed a strong demand for increased simplicity. The next part of the study, which focuses on specific concepts of IPTV in the connected home, highlights how this may be achieved.

6. IPTV Concepts in the 'New Home'

In order to examine the kind of TV features consumers would like to use in the 'New Home', the Ericsson ConsumerLab team asked respondents to rank a series of TV and digital content-related features. These were then grouped into seven concepts of connected home technology and IPTV-like functionality. The concepts are based on current developments and plans for Ericsson IPTV offerings and New Home product areas.

Fig 8 - the popularity ranking of IPTV concepts for the UK consumer market

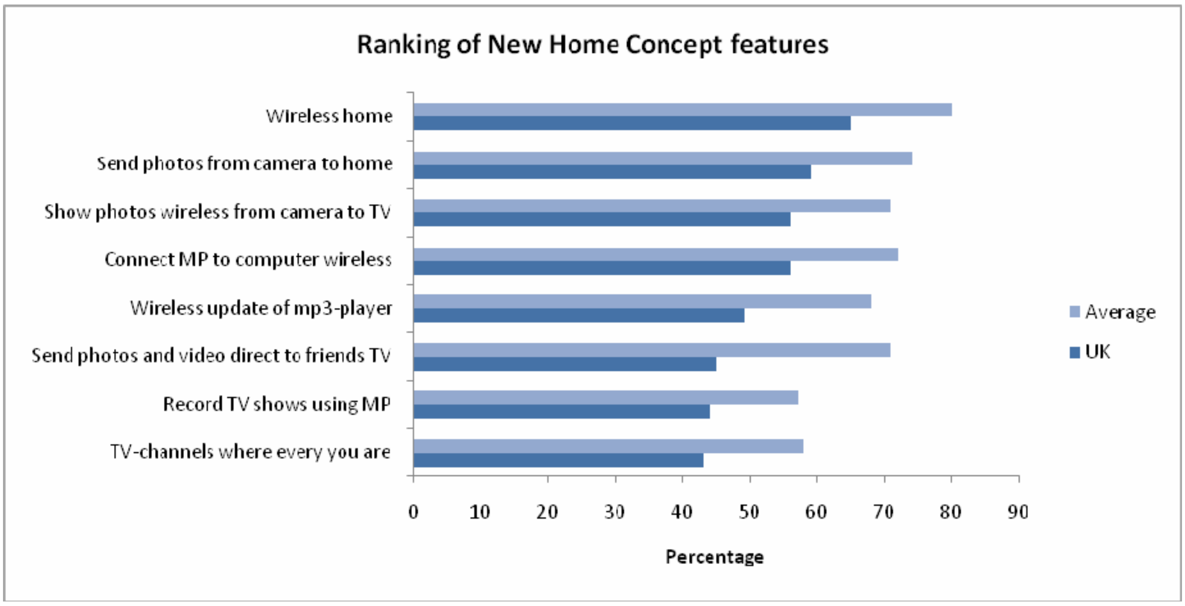
Ranking (%)	Concept	Description
1 (64%)	The New Home	The user can use any device to access his/her TV, video, music or images anywhere
2 (50%)	Communication on the TV	The viewer can receive messages and voice and video calls through the TV
3 (47%)	Parental Services	Children have to ask their parents for permission before playing a game, watching a program or renting a video
4 (40%)	Security Services	The user can monitor the home from a mobile phone, PC or TV
5 (38%)	Advertising	The viewer can influence advertising on the TV
6 (38%)	Personalised TV	The user can log in to the TV and have a personalized TV experience – e.g. a list of favorite channels
7 (28%)	Interactive TV	The viewer can access additional information e.g. regarding an artist or a destination

The specific features within each concept provide insight into what service providers need to consider when delivering IPTV services. Here, we focus on three in particular; 'The New Home', 'Communication on the TV' and 'Advertising'.

6.1 The New Home

Greater freedom and flexibility to share content between devices
The New Home gained the broadest acceptance of any of the seven major concepts. These features within this concept are, broadly speaking, about convenience and simplicity, which holds a strong appeal in any consumer technology.

Figure 9 - Ranking of New Home' Concept Features



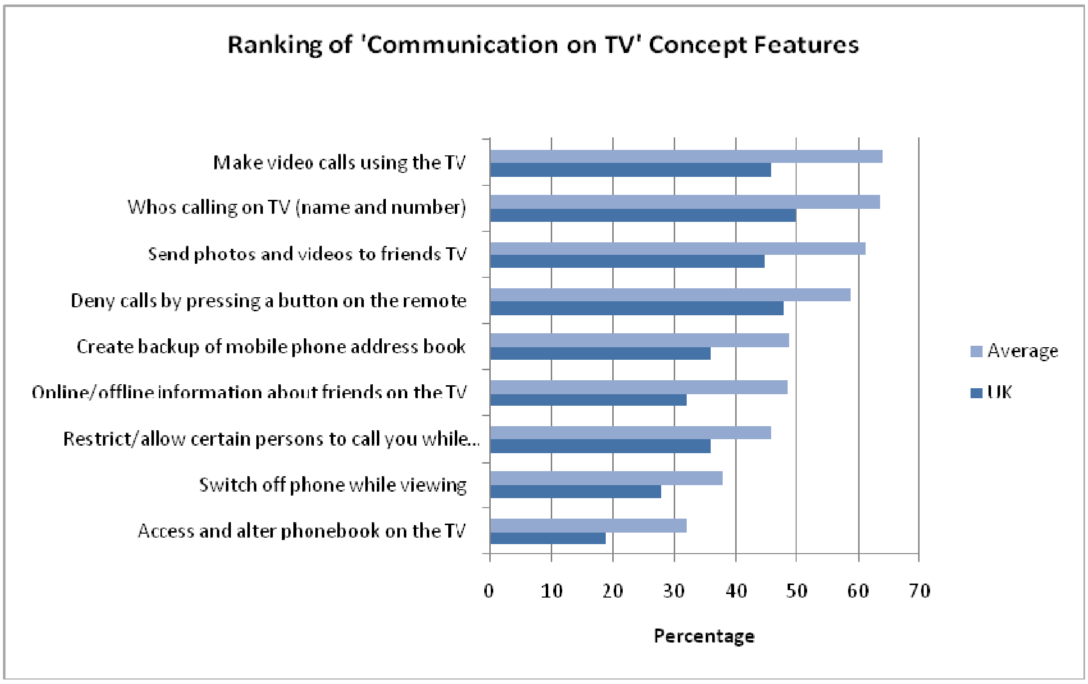
The most popular feature is also one of the simplest; the desire for fewer wires and cables in the home. The benefits are twofold: the first is pure convenience – wires and cables are perceived as a nuisance which create an untidy mess in the home. Secondly, a wireless home would allow easier transfer of files between devices, for example connecting a camera to a TV or the PC to the TV to watch video content. This is recognition of the fact that many devices require the use of the PC as a middleman in digital content sharing. It would be far easier to send content directly to the device where it is optimally consumed, such as the stereo with music. This ability to send content direct to specific device is also perceived as a means to improve keeping in touch with people less familiar with technology. For instance, grandchildren being able to send photos direct to a grandparents TV, rather than via email.

The secondary focus of the New Home features is providing easier access to content when away from the home. The ability to access photos, music and TV content which is not stored on the device, is particularly popular across the younger respondents. The main examples quoted in the qualitative study include being able to update the Mp3 playlist or send images directly back home if the camera memory stick is full. Most participants also favour network storage over storing their own data, as the network is perceived to have greater capacity.

6.2 Communication on the TV

The TV turns telephone

Figure 10 - Ranking of 'Communication on TV' Concept Features



The idea of using the TV to communicate with friends and family proved somewhat divisive; respondents were either very keen on the idea of integrating certain phone or IM functions, or completely uninterested, as they regard TV viewing as a time for undisturbed relaxation. The key with this type of service is giving the consumer full control.

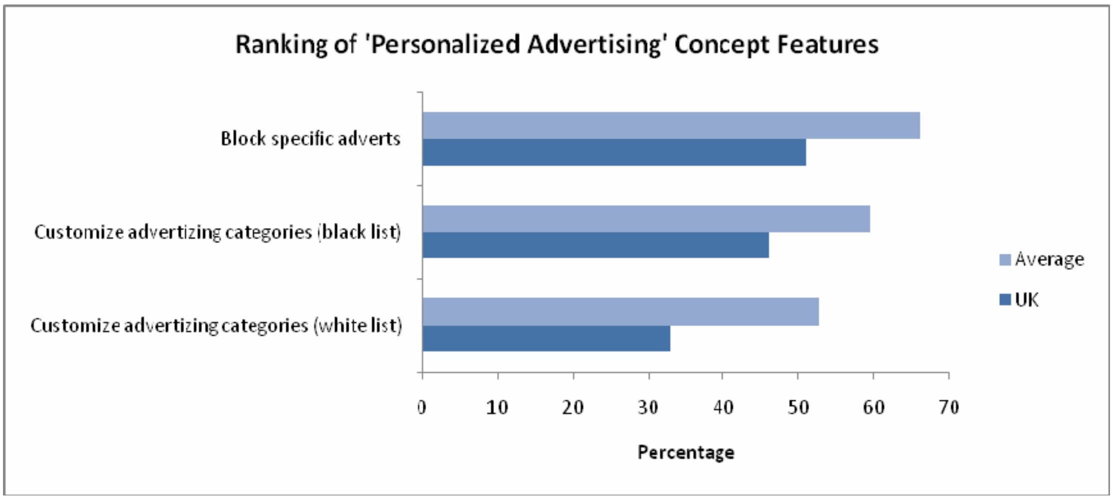
Those respondents in the study that were keen on the idea were predominantly mainstream TV viewers, who perceived the key benefit as one of convenience. The ability to see who is calling, and to answer to deny a call from the comfort of the living room couch (particularly to stop a ringing phone, rather than to start communicating), were very appealing. The qualitative research showed that people thought it would be fun to communicate with friends who are watching the same program, particularly in relation to live events like sports or the Eurovision Song Content, which would provide an opportunity for social viewing at a distance.

Occasionally (particularly when wanting to share family pictures) it would be useful to send pictures to older relatives who don't know how to use the computer and feel more comfortable communicating through the TV. The older generation is generally not very comfortable with using the computer and the primary focus still lies on the TV.

6.3 Personalized Advertising

Giving the consumer a choice

Figure 11 - Ranking of 'Personalized Advertising' Concept Features



Consumers have a love/hate relationship with TV advertising. As much as we treat them as a nuisance, fast forwarding or channel hopping while they're on, a great advert can become a the topic of conversation in offices, pubs and homes across the country. One thing is certain however, is that there is no escaping advertising in one form or another.

In an increasingly on-demand TV environment, where the TV audiences fragment, the question of how to deliver advertising to specific groups becomes more complex. Traditionally, the TV viewer has been at the mercy of the TV networks and advertisers – forced to consume whatever messages are deemed relevant to the audience on a given time of day. IPTV offers an alternative, where the choice of advertising is put into the hands of the consumer.

When asked about the ability to have more control over the advertising which reaches them, most respondents demonstrate a broadly negative attitude towards advertising – i.e. the idea is primarily choosing not to be exposed to advertising rather than choosing to be exposed to specific types. Overall however, the concept of having some choice in the matter was considered a positive feature.

7. Conclusion

The TV is evolving at the centre of household entertainment

While more advanced respondents increasingly combine broadcast television with video downloads, streams and web clips, the fundamental role of the TV being the centerpiece of household entertainment remains. Broadcast TV will continue to be a focus of TV consumption and is not in direct competition with viewing on demand streams or downloads.

But passive, broadcast viewing is increasingly combined with complimentary activities on laptops or mobile phones. The survey shows that consumers are open to, and would welcome, a range of new options that enhance the viewing experience and/or management of TV-based functionality. These options do not overtake current consumption patterns or force consumers to change current viewing behaviors, but augment existing services.

Currently, only a few advanced users have overcome the technological hurdles required to create ‘new home’ functionality but the demand for the features and functionality of the New Home is clear. But it’s becoming easier with hardware from video games manufacturers, such as PlayStation, Xbox and Microsoft Media Center PCs, all underpinned by advances in standards based connectivity in the home, such as the DLNA (Digital Living Network Alliance) standard.

But for the majority, linking the TV to other media devices or the Internet is still a relatively complex task, and a major barrier to widespread adoption. The functionality is appealing, but it needs to be more accessible.

The over-riding requirement then, is simplicity. TV consumption is still a time for relaxation – a predominantly ‘lean-back’ activity. Even seemingly trivial barriers in ease of use change perceptions of how frequently a service would be used. The target audience strongly dislikes having to make an effort in connection with watching TV. But when delivered, simplicity creates significant changes in consumption.

8. About Ericsson ConsumerLab

Ericsson conducts extensive quantitative consumer research in 25 countries on four continents through its global unit ConsumerLab (founded in 1995). The annual worldwide research program of more than 40,000 interviews determines the behaviours, tastes, preferences and drivers for existing and future services within the information and telecommunication area and among one billion global consumers.

The information from the surveys is fed into sophisticated analysis tools that allow Ericsson to model and understand consumer profiles, usage, dynamics and trends, and project interest in new services. Insights are shared with operators through consumer understanding workshops, and ConsumerLab conducts joint qualitative studies and focus group analysis among customer segments to complement its quantitative data.