

# The impact of new technology on consumer behaviour

The explosion of technology over the past few years has been massive - **Jean-Paul Edwards**, Manning Gottlieb OMD, looks at four key trends

**O**VER THE PAST FEW YEARS a mass of new technology has been launched that would have seemed like science fiction only a few decades ago. The videophone is finally with us (in the form of the webcam or 36 mobile phone); the internet allows us access to more information than we could possibly have imagined; and PVRs such as TiVo and Sky+ are intelligent devices that considerably improve our TV experience. Hundreds, if not thousands, of new devices are launched every quarter. The pace of change is accelerating and will do so for some time. Some of the changes will not become apparent for a while, but enough evidence has surfaced for us to identify some interesting trends and anticipate consumer behaviour in years to come.

It is impossible to describe individual technologies in any detail and understand their individual changes to current communication models. Doing so would be akin to painting the Forth Bridge, in that, by the time changes are accounted for and understood, the market has moved on to new areas.

## Four key trends

I propose that much technological advancement and consumers' use of that technology can be accounted for in four major trends. These are at various stages of maturity, but all have some time to run. Therefore they have use as predictive tools for the market to come. These concepts cannot make cast-iron predictions of what will happen, but they can act as theoretical tests for a new idea or product.

The four ideas are:

1. from push to pull
2. blurred boundaries
3. immersive interactive entertainment
4. consumer-created content.

These ideas were developed through summer 2004 during an installation project at Manning Gottlieb OMD's offices called the 'Living room of the future'. The project involved a series of around 70 seminars with our clients, the media,

government departments and advertising agencies. The seminars were set in what we imagined to be an average living room of the near future. All the technology was available on the high street at the start of the project, or launched during the lifetime of the project. During the seminars, active demonstrations and trials of the technology took place and their implications for the media and advertising were discussed.

### 1. From push to pull

Media have classically been delivered by a push mechanism. We buy newspapers rather than individual stories. TV schedulers put together tracts of entertainment. In both cases, advertising messages are placed between elements of that content, either in terms of time or space. Looking back to the 1960s, UK TV viewers could only choose between two or three channels, with little option to exercise that choice - not even a remote control. Over the past few decades new technology has given viewers more choice, through cable, satellite and digital TV, as well as more power to exercise

choice through remote controls, VCRs, EPGs and, recently, the PVR. Consumers increasingly pull their media entertainment from a bank of content available to them, rather than accept what is pushed at them. This is a necessary implication of increased choice.

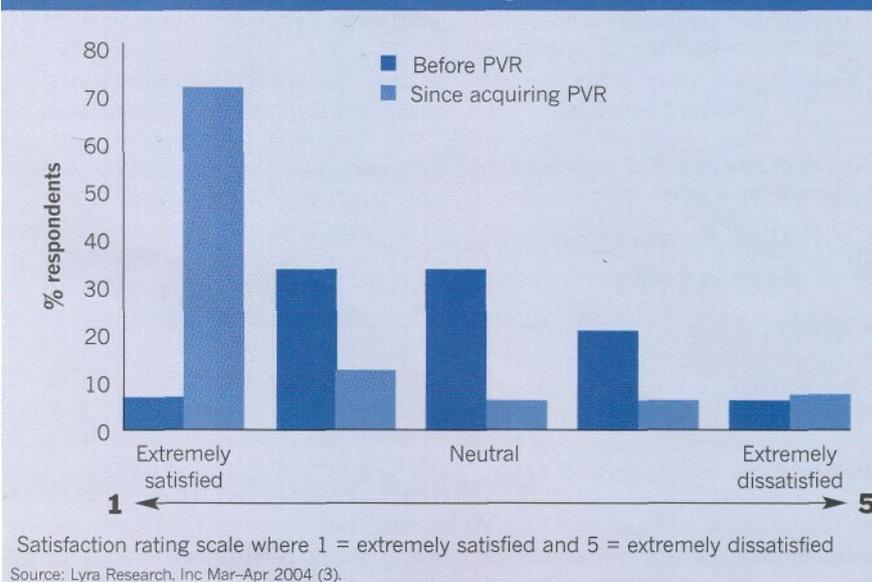
The PVR has the highest profile of these technologies. Much has been written about the potential for PVR users to avoid advertising: only recently have we had multiple sources of data from the field in several markets to support these hypotheses.

The US is the most advanced PVR market, with several brands battling for share. Penetration was around 4% of homes in June 2004 (1). PVR brands have also launched in the UK (Sky+), France (Pilotime) and in several other markets. Penetration is still below 2% of households in both markets, but growth is accelerating (2). Several studies by media owners, manufacturers, ad agencies and academia have shown a significant change in the viewing patterns of users.

Ad avoidance is a big issue. Of Sky+ users, 76% say they always avoid the ads

FIGURE 1

### PVRs: US viewers' satisfaction ratings of TV (on a scale 1-5)

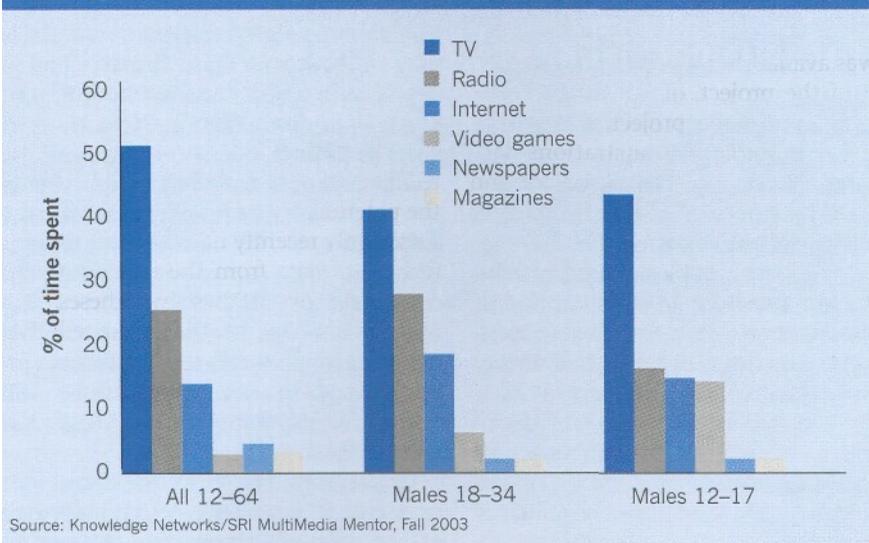


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FIGURE 2

### Time spent with media in the US



when viewing recorded programming; only 5% watch the ads more than 25% of the time (2). The average American PVR user avoids ads over 75% of the time. Ten per cent of PVR owners record everything they view via the PVR, with the express purpose of avoiding the advertising (3). PVR users do watch more TV: 4.1 extra hours per week in the UK (2), 24% more TV a week in the US (4). Average satisfaction ratings with TV move from 3.13 to 4.48 on a scale of 1-5 (3) (Figure 1).

A further dynamic is that the longer a household has a PVR system the more it uses it and the more it avoids the ads. The proportion of viewing that is time-shifted has moved from 38% to 44% in the past year (UK Sky+ users (2)). Forrester reports that US users are using them for almost 60% of their viewing (5). Experienced PVR users (two+ years) in the US use their PVR for 60% more of their viewing than a novice (less than six months (3)).

Other media are also experiencing this effect: digital radios now allow for limited pause and rewind or intelligent scheduling. The internet has always been inherently a pull medium. Internet radio allows us to choose between 250,000

stations from all over the world: it is only a matter of time before this level of choice in TV content is available to the consumer. It is the pull media that are growing and the push media (terrestrial TV, newspapers and so on), that are in decline.

### 2. Blurred boundaries

The media we consume are increasingly digital and the changeover is inevitable. Analogue switch-off dates are being set throughout the world for the next decade.

Digital, or more specifically the is and os that make up digital media, is a *lingua franca*. They can be stored on a variety of devices and moved through wires, radio or discs. This has the effect of blurring the boundaries between media. No longer is a specific type of content limited to a specific device.

We can now listen to the radio through our PC or TV. In the UK more people regularly listen to commercial radio via the Sky Digital platform (10.5m) or via the internet (5.6m) than do via DAB (1.6m); even the mobile phone is a bigger radio platform (1.9m) (6). No longer can media be considered in isolation, even TV.

TV is increasingly viewed as a secondary activity; over half of TV is now viewed in this way (15hrs vs 14.8hrs primary (7)) in the UK. In the US 66% of viewers claim to have surfed the internet while they view (8). Multi-tasking is becoming mandatory; the average American woman now tots up an average 38 hours of activity every day (9).

Media are becoming increasingly ubiquitous and portable. Mobile phones are going online; advanced services such as i-mode in Japan have reached the mass market, with 41.3m subscribers in 2003 (10). The popularity and use of such devices is also growing in western Europe. Trials are due to begin of TV broadcast to mobiles in both the UK and Scandinavia. It is not just what you want when you want, but also where you want. Increasing advances in technology will only push this process further. Already 1.5 billion mobile devices are in operation worldwide (more than TVs and PCs combined) and this will grow to 2.5 billion by 2009 (II).

### 3. Immersive and interactive entertainment

New technology is also providing an ever-richer experience. We want our media to represent a more lifelike experience. Colour is better than black and white, stereo better than mono. The decreasing cost of technology is bringing bigger and brighter experiences into the home. DVDs are now a mass-market technology, in over 50% of homes across many markets. Screens are getting bigger as prices come down. Consumers are looking to interact with, and immerse themselves in, their media. Added features on DVDs, voting on TV shows, even the popularity of reality TV can be considered part of this trend. Many people are now recording an entire series before viewing the first episode. 'Binge viewing', as it is known, can be considered a more immersive viewing experience.

The popularity of games consoles is also part of this trend. There are 75 ▶

million PlayStation 2s worldwide (10% of them in the UK) (12). The value of the market is approaching that of cinema and even the music industry (13).

The average 13-year-old male in the UK plays video games for almost 11 hours per week (14). The long-term prospects for this medium are supported by the fact that 50% of boys aged 7-11 regard video games as their most involving medium (15), (see Figure 2).

The internet is likely to be the primary source of interactive immersive experiences. Already games such as EverQuest™ are dominating the lives of a small number of people. This massive multiplayer online role-playing game (MMORPG) has half a million regular players who spend an average of \$2,500 a year and 22.5 hours per week on the game (16). Many other games are in existence, not just fantasy games targeted at men. As broadband connections to the home become faster and more prevalent, these activities will become more popular. Already Japanese broadband is usually above 12mbps for ADSL and loommbps for cable connections. The whole country will have access to this technology by 2005 (17). South Korea, the most broadband-enabled country in the world, already broadcasts gaming events and the most skilled players are considered celebrities.

Television is becoming more interactive. The UK leads the world in enhanced TV and interactive advertising. The recent success of the interactive Olympics from the BBC, in which more than 6m people spent some time in the interactive environments (18), shows that there is an appetite for such services. Conversely, the failure of other iTV initiatives shows that the consumer is discerning and will not interact for interaction's sake. The global rollout of digital TV will see interactive services increase in popularity.

#### 4. Consumer-created content

Historically, we made our own entertainment. Before the 20th century, people told stories, played parlour games or sang around the piano. Only with broadcast media did we collectively pay the most talented to entertain us remotely.

Technology is beginning to reverse this. No longer does one need lots of talent or training to produce something worthwhile. The desktop-publishing revolution of the early 1990s was an early iteration of this trend. Now

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consumers have access to multiple creative technologies such as digital cameras, Photoshop, iTunes or camera phones. They are also connected to each other via multiple channels. This has produced not just an explosion of creativity but an explosion in the consumption of consumer-created content. Instant messaging and texting are global phenomena; 250m people regularly use instant messaging (19). Among the young they have started to replace traditional modes of interpersonal communication.

Blogging is a new form of personal expression: these online 'diaries' (they are much more than that) are now being seen as an important medium in their own right - more than five million people have participated so far (20). Brands, markets and products are discussed by bloggers and influenced by them. The blogger is the classic opinion-former that so many advertisers want to reach.

Consumer-distributed content is a major headache for copyright owners; digital piracy of music and video content costs the music and film industries billions each year. Technologies such as Kazaa, Napster and Bit Torrent have provided a method for content to be distributed for virtually no cost. The advertiser can take advantage of these systems: if content is suitable and can be distributed by such networks, the primary cost of distributing a message, the media cost, is removed. Viral marketing is likely to evolve into a more scientific pursuit.

Ohmynews.com is South Korea's largest online newspaper. It has more than three million unique users each month, but an editorial staff of only 40 (20). This is because the news is written by the readers. There are specific reasons why this property has been particularly successful in South Korea; however, its

success is symptomatic of the wider trend. They also understand the concept of blurred boundaries, as sister channel ohmyTV runs regular consumer-related shows and on-the-ground updates of breaking stories. The 'paper' is well respected, with South Korea's President Roh giving ohmynews.com his first interview after being elected in 2003. Around this time it was voted the country's sixth most influential media property (21).

#### In conclusion

The move to digital distribution and display of content has already had a significant effect on marketing, but changes to come are likely to be even more profound.

The concepts described here are by no means sufficient to understand all the implications of new technology. However, they provide an insight into consumers' implicit desired relationship with technology. My hypothesis is that these concepts could act as useful tests for understanding consumer needs, and successful products and services that address those needs.

A successful new service should be understood in terms of at least one of these trends. Those that cannot be understood in terms of at least one of them are likely to fail. ■

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