

IPTV and new video and news dissemination platforms

Summary

This section looks at the benefits and issues surrounding emerging online television formats and services invariably referred to as Internet TV, Catch-up TV, Online TV, IPTV, Video-on-Demand or Video Streaming.

The online options for watching video news (or video in general) are multiplying as many new 'online television service providers' emerge. These formats which many simply call IPTV or online television are said to be a threat to traditional television news. Already there is acknowledgement that these options are increasing the fragmentation of audiences. Before the advent of the Internet in the 1990s, video news could only be watched on television, at scheduled times, unless you had a Betamax or VHS player to watch pre-recorded video

These days a television is no longer necessary for watching news. Online TV and IPTV offer television news and not only that, they let users or viewers select what to watch and when to watch, in other words they put the viewer in control, compared with the one-to-many passive consumption formats of traditional television.

In an industry which thrives on the attention of the viewer, will these new formats have far reaching consequences?

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1 Predicting a better television future

Since the 1990s, many technology commentators and researchers have predicted the demise of television at the hands of the internet. Those in the television industry deny such claims and say those who watch online television are doing that over and above regular television viewing or previewing what to watch on regular television.

1.1 Bill Gates 2007 prediction: internet set to revolutionise television

“I’m stunned how people aren't seeing that with TV, in five years from now, people will laugh at what we've had”

Bill Gates ¹

When Bill Gates made this prediction in 2007 to business leaders and politicians at the World Economic Forum in Davos and predicted that TV would change in five years, he was taken more seriously. After all, this was Bill Gates, the man in charge of the world's largest software company.

“Certain things like elections or the Olympics really point out how TV is terrible.....Internet presentation of these things is vastly superior”²

Not surprisingly, this technologically deterministic speech generated a lot of hype, press coverage and set some high expectations. “The internet is set to revolutionise television within five years, due to an explosion of online video content and the merging of PCs and TV sets”, summed up the [Daily Mail](#).³

No one is laughing yet at ‘what we’ve had’ and it doesn’t look like anyone will be at the end of Bill Gates’s five year timeline in 2012.

“...in essence, TV is changing and will continue to change, because the Internet is forcing it to. But we won’t see a massive, dramatic change for another 8-10 years”, commented Jeff Heynen, directing analyst for broadband and IPTV at Infonetics soon after Bill Gates’ 2007 speech.⁴

1.2 Television technology changing

However, there have been a lot of developments and changes in television technology since Bill Gates made his prediction. The global switch over from analogue to digital television went a step further in Feb 2009 when the United States turned off analogue TV and switched over to the long anticipated digital television platform.⁵ The United States joins several countries like Sweden, The Netherlands and Switzerland which have already gone digital while countries like New Zealand which launched its FreeView digital platform in May 2007 will phase out analogue television over a period and go fully digital by 2015.⁶

A lot of other countries are in preparatory stages for the switch from analogue to digital television.

Other new developments and technologies include several new digital set top boxes and HDi TV sets that have emerged on the market, some equipped with Internet connectivity which enables playback of online TV, IPTV or hybrid IPTV services on TV sets. The uptake of set top boxes like FreeView, Tivo, MySky or Apple TV or media centers is increasing TV options. Besides these options, countries like New Zealand, Australia, the UK and many others can access a host of internet delivered online TV services like the BBC iPlayer, and on websites like www.filmon.com or www.ziln.co.nz, or www.hulu.com where viewers can download software onto a computer to watch television, sports and movie channels online

The widely anticipated Internet Protocol Television (IPTV) and Internet television are taking longer to reach critical mass. There are several reasons for this; the service is tied to Broadband penetration and uptake rates and besides, the service is dogged by issues relating to video quality and user friendliness of applications and interfaces.

1.3 Industry standards and formats for online television

A lot of background work is going on with consortiums of technology developers working on standards to perfect Internet Protocol Television (IPTV) and Internet television, the two formats which many simply call IPTV.²⁰

One format increasingly being looked at is the HDi format launched in May 2009 by online TV company called FilmOn on www.filmon.com. This UK based online TV which has a collection of 7,000 films, 70 per cent of which are available for free launched HDi to improve video playback. FilmOn has several plans afoot including launching a set-top box

“The advent of HDi means that FilmOn users can appreciate live TV programming and VoD content without any buffering times”⁷

FilmOn’s HDi is not to be confused with Toshiba and Microsoft’s HDi, launched in April 2006 during the DVD format wars between the Blu Ray format and the fated HD DVD⁸

1.4 IPTV limited by lack of a business model

Apart from these issues, those in the know say there is another critical ingredient missing for IPTV to succeed and this is “the lack of a business model”⁹

When the idea of online television services started, many of the providers who took up the idea launched with the expectation of making viewers pay for watching TV online, with limited success, particularly for VideoOnDemand services.

Some providers like TVNZ gave up this unpopular idea of charging \$2 to \$4 New Zealand dollars per downloaded episode in favour of trialing an advertising supported model.¹⁰

Getting a model that guarantees a return on investment is difficult and as a result, everyone is “wasting a tonne of money” on IPTV, according to Telecom New Zealand’s Dr Paul Reynolds.

2 What is online television? What are the advantages?

Television has always broadcast its services terrestrially or via satellite or cable and “emphasizes one (or few) to many communication flow, with little feedback between source and receiver (or journalist and audience)”¹¹

Online television on the other hand is delivered over a broadband connection and gives viewers or readers a buffet of all the news and leaves it up to them to determine what they want to watch and in what order and there no are news-anchors or newsreaders. In essence, viewers watch TV on their own schedule and not on a broadcaster's schedule. All online television content is delivered through On-Demand or Scheduled service regardless of format. Viewers can either stream video files or download them in various video file formats like MPEG4

Online TV, an all encompassing term that covers many different types of video programming and services is also invariably referred to as Internet Protocol Television (IPTV). But by strict engineering definitions, IPTV is a distinct service that's different from Internet Television or other online video delivery.¹⁶ IPTV is already established in several countries and France and Hong Kong have the largest number of IPTV subscribers in the world¹²

3 Growth of online Video

The growth of the internet is tied to the phenomenal growth of broadband subscribers worldwide. UK analyst firm Point Topic, estimates that in the first quarter of 2008, there were more than 367 Million broadband subscribers world-wide, and predicts that number to increase to 567 million by 2011¹³

3.1 Explosion of video online particularly on social networking sites

Such growth has seen an explosion of numbers of internet users online and on social networking sites like YouTube and spurred a lot of online activity that has seen "users shoot and upload a lot of videos online at increasing rates"¹⁴

"Today, 13 hours of video are uploaded to YouTube every minute, and we believe the volume will continue to grow exponentially"¹⁴

YouTube is one of the many social networks that offer user-generated or contributed videos; Daily Motion, Bebo, Vimeo, Veoh.com, Megavideo.com, Google Video and Facebook being some of the most popular.

3.2 Traditional media competing with emerging online TV

On their websites, most television stations worldwide now offer videos of news bulletins, current affairs or popular programmes for download or streaming to cater for changing news consumption habits. The challenge for news organisations is to cater for all their audiences, regardless of whether they are in front of a TV, or in front of a computer or on their mobile.

There are also some emerging online TV formats which require installation of software on a computer. One installed, these formats have a media player and a video gallery

which features a selection of TV channels or shows. Most of these ‘online television services’ like Hulu (www.hulu.com) , TVU (www.tvu.com) , Miro (www.getmiro.com) or Readon (www.readontech.com), www.tvu.com and www.filmon.com offer a variety and mix of television drama series, sports channels and Live News TV like the BBC, Fox, and CNN

Some of these online televisions like www.readontech.com are free to watch, but others like <http://www.3click.tv> require a subscription. A few channels like www.hulu.com have geographic limits which limit viewership to those with United States Internet Protocol (IP) addresses, but the majority are global.

“Internet Television uses a global reach business model, where video and television services that are offered in one geography can be accessed from any other global geography (as long as content distribution rights are in place)”¹⁵

Such global reach can help to target niche audiences who could benefit during major events like sporting events or conferences where channels dedicated to specific events can be set up. Forecasts say this will only increase

“The sum of all forms of video (TV, video on demand, Internet, and P2P) will account for over 91 percent of global consumer traffic by 2013. Internet video alone will account for over 60 percent of all consumers Internet traffic in 2013”¹⁶.

4 Defining online options and platforms

The ubiquitous nature of broadband and the proliferation of wi-fi and broadband-enabled devices is increasing the options for watching television. These range from multi-media devices like iPod touch, laptops and netbooks to games consoles like Nintendo, PlayStation 3 and Xbox 360. Other devices that can be used to watch online TV include media centers, TV sets and set top boxes with broadband ethernet ports or wi-fi connections. Essentially most devices that can connect to broadband can access Internet TV or IPTV

4.1 IPTV versus Internet Television

The two main formats for watching television online are IPTV and Internet Television. Internet Television is invariably and erroneously referred to as Internet Protocol Television (IPTV).

“IPTV can be confused with Internet video or Internet TV, but those services are quite different. Internet video and Internet TV are both offered over the public Internet. Internet video is an unmanaged service that offers the streaming of video through the public Internet. Internet video companies include user-

generated video websites like YouTube or Metacafe where users can upload and view others' videos”

Internet TV companies also tend to use MPEG 4, the same encoding technology used by IPTV providers, for high video quality and offer near-TV quality picture resolution. The main providers of IPTV services tend to be telecommunication service providers, but cable and satellite operators are also starting to get into the game.”¹⁷

Another difference between IPTV and Internet television is that IPTV is similar to cable service providers and requires set top boxes or Personal Video Recorders (PVR) like Tivo, Slingbox, Apple TV, Xbox 360, Media Centers, and MySky, with ethernet and Wlan /wi-fi connections. IPTV services are usually provided by telecommunications companies.

“IPTV is usually a bundled service that has provision to include two more services which are web access (data) and phone access called Voice over Internet Protocol (VOIP). This is called Triple Play”¹⁸

4.2 Hybrid IPTV

This s in many ways just a variation of IPTV, where set top boxes offer free to air TV channels packaged together with internet delivered TV

Internet Television on the other hand requires installation of software or application which is usually a multi-media player with a gallery or library of TV channels or videos. An example of this is the TVU TV player which can be downloaded from www.tvu.com and installed on a computer or Miro from <http://www.getmiro.com> . Other Internet Television offerings like Hulu have a media player embedded on their website. In other words, to watch something you have to visit their website www.hulu.com and click play on whatever content you want.

4.3 Social Networking Sites

Social network sites are by far the most popular for sharing video online. The most highly-trafficked site is YouTube. With its tagline ‘Broadcast Yourself’ YouTube attracts and features a lot of user created video or user generated content (UGC). Started in 2005, YouTube’s growth has been phenomenal and YouTube has even made forays into setting up a Citizen Journalism Channel, Citizen News where users can upload videos of news events

4.4 Video on Demand (VoD)

Regardless of format, all online television formats are designed to make video available to users online, as ‘per the demands of the subscribers’,¹⁹ Video on Demand as the service is known has an application that provides freedom to the individual subscribers to select video content and view it at their convenience or download it. VoD applies to both Internet television and IPTV

5 What’s limiting the success of online television and IPTV?

IPTV and in particular online TV still have many performance limitations in terms of video quality. While slow broadband speeds in some parts of the world could be a factor, technical issues add to the poor video and quality experience that characterize online television.

“The quality of the viewer experience is a key barrier to the growth of video viewing on-line. Even with current capacity and demand, Internet video performance can be uneven, with streams starting slowly, stopping unexpectedly, and audio tracks not always syncing well with video. Many of these issues can be traced to the unpredictable nature of the Internet and uncertain capacity at the consumer access level. Nemertes, in fact, indicates that access capacity could be the initial constraint on the growth of Internet video.”²⁰

5.1 Lack of uniform industry standards

Some of the issues dogging the development of IPTV can be traced to the lack of uniform industry standards. A consortium of broadcast technology and electronic companies in Europe called Open IPTV Forum is dealing with this challenge and are creating solutions that enable a "plug and play" experience for the end-user.²⁰

“This implies that the different players in the IPTV value chain needed to have a "tool" to easily develop their own products to fit into the "plug and play" solution. The "tool" is the open standards that are created in this Open IPTV Forum”¹⁹

The Open IPTV Forum founding members include Ericsson, France Telecom, Nokia Siemens, Panasonic Corporation, Philips, Samsung Electronics, Sony Corporation, and Telecom Italia²¹

These companies are technology and telecommunications leaders with deep pockets and a great deal of technical skills and catalogues of content. Sony Corporation owns Sony Pictures Television which is one of the television industry’s leading content providers.

Another consortium called the Hybrid Broadcast Broadband TV (HbbTV) comprised of companies such as SES Astra, Humax, Philips, and ANT Software is currently promoting and establishing an open European standard (called HbbTV) for hybrid set-top boxes for the reception of broadcast and broadband digital TV and multimedia applications with a single user interface.²²

“... Now for IPTV the need of the hour is to gain mass acceptance and to reach to the optimum technical and commercial success as per everyone’s expectation. In order to achieve this, the IPTV market must make itself free from closed solutions, which may hamper the following three goals: innovation, development, and competition.”²³

5.2 Lack of a business model

A further limitation on IPTV is the lack of a sustainable business model. This is demonstrated by the fact that Telecommunication companies who own networks that distribute broadband have not had much success with a product that’s delivered on their own networks.

Telecom New Zealand CEO Dr Paul Reynolds worked on the early offerings of Video on Demand in the 1990s and knows what is lacking.

“IPTV lacks a business model....Bill Gates’s prediction (in 2007) of IPTV changing the way we watch television has not happened yet. The business model is very critical. If you look at the countries where IPTV has been a success you’ll notice that there are some macro economic conditions that allow it to succeed, usually IPTV succeeds where there is no cable TV”⁹

6 Conclusion: Will these alternative methods eclipse traditional TV platforms

Those in the industry dismiss IPTV and online video and say they’re not a threat. They say that on the contrary to being threats, online and IPTV are good ‘promo platforms’ for television and drive viewers back to television screens. In New Zealand for example, TV industry execs have high television viewership figures to back their claim. The viewership figures are the highest they’ve ever been.²⁴

The figures indicate a decline in some age groups however, a situation that seems to be happening everywhere in the world, something critics are quick to point out.

“The rise of high-speed Internet and the popularity of video sites like Google Inc.’s YouTube has already led to a worldwide decline in the number hours spent by young people in front of a TV set.”²⁵

6.1 Limitations of IPTV

For IPTV to eclipse traditional television it has to reach or attract critical mass of viewers and the service has to be available and affordable to the user. One of the major limitations of technologies like IPTV is the capital cost of developing and deploying versus potential revenues .As it is, without clear strategies, IPTV is an unattractive venture.

“IPTV is still a dream in New Zealand. The major factors are lack of a business model and uneconomical cost. The cost to deploy IPTV in New Zealand where there’s 4 million people is the same as England where there’s a population of 51 million⁹

6.2 Technological advances

On the upside, technology is advancing to co-opt the new developments like IPTV and online TV. As a result, many new television sets like Sony Bravia TV now come with ethernet ports for broadband connectivity and enables them to go online and receive online television with vastly superior video and picture quality.

Such a seamless video experiences will get rid of current bad video user experiences on most interfaces and devices where “watching video clips on a computer is a separate experience from watching sitcoms or documentaries on television,” according to Bill Gates

"Because TV is moving into being delivered over the Internet - and some of the big phone companies are building up the infrastructure for that - you're going to have that experience all together," Gates said.²⁶

Advances are also expected to iron-out technical issues that have dogged user experiences when viewing online television.

6.3 What is the likely impact of IPTV?

Forecasts predict an increase of online video broadcasting in the next decade and ‘more and more consumers will become creators’, according to a blog entry posted by Chad Hurley, CEO and Co-Founder, YouTube²⁷

Just as the Internet brought about the ability to send and receive emails, to bypass geographical boundaries, to read newspapers from other countries, IPTV and online TV are giving the option to watch television from other countries and giving local free to air channels and a lot more than your local satellite or cable company. The service is still in its infancy but is already showing potential.

6.4 Cautious approach: nobody knows where the Internet is headed

Some critics and researchers are cautious of where technology is heading. They say that the development of video over the web is in a very early stage.

“As with television in the late 1940s, nobody knows where it is headed. What impacts will a next-generation web have on individuals, families, business, politics, and society? It is not too early to begin asking questions and to set an agenda of research topics to explore.”²⁸

The growth of IPTV and online television are likely to create an audience which is likely to shift their viewing to a new platform. Television industry executives dismiss this and say audiences are consuming media on both traditional and online platforms. This debate is highly contested and it seems all the parties on both sides of the debate have got valid arguments. This makes it difficult to predict the future.

¹ Microsoft Chairman Bill Gates, Address to the World Economic Forum, 2007, Davos Switzerland <http://www.webtvwire.com/bill-gates-sounds-like-hes-got-tv-covered-but-plenty-of-challenges-ahead/>

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²² <http://www.hbbtv.org/>

²³ Internet Protocol Television (IPTV)

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²⁴ http://www.nztbc.co.nz/news/story.php?story=story_130109.inc

²⁵ <http://www.dailymail.co.uk/sciencetech/article-432248/We-laugh-todays-technology-years-Gates.html#ixzz0RMVovNVy>

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