

Scenarios for the Internet Migration of the Television Industry

Gilles FONTAINE, Florence LE BORGNE-BACHSCHMIDT & Marc LEIBA
IDATE, Montpellier

Abstract: All the conditions for the television industry's migration to the Internet are now in place. While this migration will be gradual, it will have a deep-seated impact on the industry: 1) the exclusive rights model will no longer be the standard; 2) some consumers will abandon traditional managed networks; 3) a globalization trend will be sparked, to the benefit of the major rights holders. Unlike the music and print media industries, the TV industry is gaining a strong position on the Web. As a result, television is poised to play a central role in video services. This offensive strategy will likely pay off down the line, but does not entirely eliminate the possibility of destroying value. There are structural reasons for this, including a fiercely competitive online advertising market and a lack of control over program circulation. Far from being simply transitory, the 2009-2010 economic downturn marks the beginning of a decade of restructuring for the TV industry. This new period will begin with an overall decline in the sector's resources before increasingly varied consumption patterns spur a new period of growth. The decade running from 2010 to 2020 will also be a period that focuses on cost control, with the industrialization of TV production that will depart once and for all from its historical model, i.e., film. This migration to the Web poses a threat to the European industry in particular. A reassessment of the television industry's regulatory strategy appears both necessary and urgent, and will involve the creation of integrated pan-European conglomerates.

Key words: television, video, networks, on-demand, connected devices, advertising, pay-TV

The broadcast television industry has been characterized by the combination of live usage, distribution through managed network and viewing on the TV set. The digitization of TV signal has introduced a series of evolutions without deeply affecting the paradigm:

- a more individualized consumption, with multiple TV sets in each household and emerging pay-per-view/on-demand services;
- more competition in the managed networks market, with increasing market share for satellite and, more recently, IPTV;
- a segmentation of supply and demand through a new generation of theme channels;

- an increasing weight of pay-TV in the funding of the TV industry, with new services providers playing the gatekeeper role between TV channels and the consumer.

Broadband Internet access, fixed, wireless and mobile is certainly instrumental in enabling online video. But four key enablers converge to install Internet as a new self-standing distribution channel.

Consumers appeal for Internet video

Even with its current limitations, Internet video accounts for a growing part of total video consumption – even if still marginal compared with broadcast TV. Most of this consumption gears towards premium content, either short content excerpted from broadcast shows, or full broadcast shows under copyright accessed through file sharing networks or other distribution services such as news groups or streaming video services.

Premium content legitimately available on the Internet

Beyond "illegal" content, television programs rights holders, in the view of the deceiving results of the music industry defensive strategy, do make available premium content online: free services (generically called "catch-up services"), propose TV programs on the Internet immediately after they have been shown by the main television stations.

Connection of the TV set to the Internet

Multiple solutions are coming to the market allowing the connection of the TV set to the Internet. This connection is either embedded, or provided through a distinct device (a game console, a Personal Video Recorder, a multimedia home server, a television set-top-box). The visualization on online video content on the web is made easier for the consumer.

Service providers candidates

Players from all industries involved in the delivery of video content over the Internet are in a position to become service providers, aggregating, branding and delivering content: incumbent TV companies (in control of content), telecommunications operators (managing the access), consumer electronics and computer players (selling the device), and Internet companies (as online video aggregators). Among them, several are present at different levels of the value chain, such as Apple, Google or Sony.

■ Three long term scenarios for the television industry in 2020

Overview of scenarios

We developed three scenarios, by:

- building three macro-economic scenarios;
- identifying twenty key innovation factors in the video industry;
- assessing the likely long-term evolution of these key innovation factors under the three macro-economic scenarios.

Overview of the three scenarios for 2020

	<i>My Video Web</i>	<i>Broadcast as Usual</i>	<i>Community TV</i>
<i>Usage</i>	- UGC, VOD and enhanced communication via social networks - Limited piracy	- Linear TV and premium programs - Rampant piracy	- UGC, VOD and enhanced communication within closed communities - Widespread piracy
<i>Access</i>	- Internet-only households, not connected to managed networks - All content available online accessible from personal multimedia devices	- Managed broadcast networks dominate - Growth of the digital household	- Terrestrial broadcasting plays a key role in social cohesion. - Pivotal role of the computer, heterogeneity of the digital household
<i>Services</i>	- New social network content aggregators - Overlapping of communication / content - High level of innovation (rollout of 3D) - Video is ubiquitous in urban areas	- Audience dominated by a few global broadcast channels - Convenience services - Low level of innovation (failure of 3D and mobile TV)	- Audience split among different communities - Community-based, nomadic, on-demand TV channels
<i>Funding</i>	- Integration of advertising/direct marketing/e-commerce - Fewer non-premium pay channels - Marginalization of public service broadcasting	- Sluggish growth of the ad market - More pay channels - Gradual decrease of governmental funding in the public sector	- Location-based direct marketing - Drop in value of pay TV - Increase in governmental funding in the public sector
<i>Player strategies</i>	- Powerful producers, a few global channels with a renewed focus on current events - Telcos as enhanced connectivity providers - Web players as the primary content providers - 3D and new connected devices, growth engine for consumer electronics - Regulatory framework requiring open networks and non-exclusive distribution	- Consolidation of national channels, weakening of theme channels - Vertical integration of telcos/content providers - Web players absent from the content market - Network operators control consumer electronics - Regulation does not stand in the way of vertical integration of networks/content	- Large variety of Web TVs and associated services - Telcos provide enhanced access - Fragmented Web players as content providers - Integration strategies for devices and services related to consumer electronics - Local regulation predominates

Scenario 1: My Video Web

The 2009-2010 crisis will have benefited the Internet overall. The Web is at the heart of the reconstructed economy. It becomes the central nervous system of the world's cities and the link between nomadic individuals. Access has become a free commodity that is guaranteed to all citizens. This new electronic democracy and its corollary - constant personal and location identification - are widely accepted.

Enhanced communication becomes the dominant lifestyle rather than a mere source of entertainment. Consumers exchange information - and content - around the clock. They constantly plug in and out of multiple sources of information and images. Now interconnected, social networks are the pivotal component of this digital world. They become the new Web browsers, integrating communication, service, e-commerce and content features such as embedded user-generated content.

Extreme nomadism and universal broadband connectivity have had a profound effect on the digital household. Personal content is stored online and is accessible from connected devices. Users are no longer limited to browsing professional content in streaming. Nothing prevents them from downloading content, since it is always available online. Interoperability and continuity of service between devices is guaranteed.

User-generated content is well established. Individuals upload every element of their lives (captured by personal devices or embedded cameras) to the network. Image recognition technology is finally available and is capable of indexing the images sent in real time. Users can follow the lives of their network members. Visual content can also be reworked using Web services to create real-time or produced content streams, which become the new generation of reality TV programming. Google becomes the undeniable leader in indexing users' daily lives.

Nevertheless, professional programs still exist. But the communities have replaced the major television brands as distributors: producers offer popular programs directly to consumers via social networks. Content and communication are closely connected. Live commentary can be added to television programs, which are then edited and sent to members of a network.

The entertainment industry is now globalized. With social networks, the industry has an optimal broadcast network that allows content to be adapted to individual consumers, based on taste rather than country.

In addition, programming piracy seems to be almost completely in check, outside a few hacker communities. The social networks have contributed to imposing the principle of universal identification. Citizens must identify themselves in order to connect to the network for free and to use transport facilities and access downtown areas. The end of the anonymous Internet has brought about the end of piracy.

The entertainment industry also benefits from a dynamic ad market that combines integrated major media/direct marketing/e-commerce and increased personalization of ad messages. For content producers, television's migration to the Web has opened new sources of funding. Advertising moves toward direct marketing and pre-sales. Producers are compensated based on sales generated by promotions inserted into the programming.

But broadcast television's role has weakened and it accounts for a significantly smaller share of people's leisure time. Since all video programming is available around the clock, from anywhere, on any device, on-demand consumption - largely dissociated from the TV channel offerings - wins out. Yet a few global television networks survive and are powerful enough to finance a few exclusive events. They have adapted to nomadism by ensuring their widespread availability in public places. With the convergence of written, audio and video content, the barriers between media conglomerates, music publishers and TV producers begin to blur. Competition from these commercial operator powerhouses means public service broadcasters find themselves in a marginal role. Failing to launch European public service television, they move toward the North American model.

Pay-TV channels have also suffered from the abundant video offering available online. They pursue a consolidation strategy that gives birth to a few players with at least a presence on the Continent, that are in a position to finance exclusive programming. In the field of sports, they are able to obtain the creation of a European soccer championship.

But for the most part, the exclusive rights model for programming has disappeared, another victim to the weakening of the major chains and the rise in on-demand consumption. Producers have gone through a long

transition period, but have ended up distributing all of their content to all of the platforms - a process that originated with pay VOD.

The open Internet - whether fixed or mobile - gains market share over managed networks, and some households now rely solely on the Internet for their video consumption. Access is partly subsidized by the public authorities, in the interests of universal service. This allows the open Internet to compete with the traditional managed TV networks. Since they cannot base their marketing strategy on access, telcos have invested heavily in developing enhanced connectivity services, which has had a positive effect on the quality of services used to transmit video over IP. In some countries with significant fiber-optic coverage, consideration is given for a second partial "switch-off," which would entail replacing DVB television services with mobile Internet access.

Economic prosperity encourages innovation. Immersive technologies initially take off on the Web. Video games popularize 3D in leisure activities, and Television channels, faced with competition from the Web on the one hand and the threat of direct distribution of their programs by producers on the other, have invested heavily in 3D. The percentage of 3D-capable TV sets out of all TV sets in use is beginning to approach the 20% mark.

Scenario #2: Broadcast as Usual

Faced with economic stagnation, the energy crisis and the limited rollout of ultra high-speed connectivity, the Internet fails to evolve from a service tool to an entertainment tool. Social networks are still nothing but "time-killers" and the quality of online services is unable to meet the new high-definition standards. Online advertising remains limited to direct marketing (primarily Google's sponsored links program).

The TV audience increases, since TV is the least expensive form of entertainment. For most consumers, the winning model is still live broadcast television. Nevertheless, progress can be seen in certain convenience services (catch-up TV). On the other hand, accessing online services on the television set fails to take off. Premium television, living off of exclusive content, remains the only notable producer of TV dramas, despite the threat of rampant piracy.

Given the relative shortage of broadcast frequencies and weak competition in the television sector, innovation is limited. HDTV succeeds in

becoming widespread, but 3D does not take off due to a lack of dedicated programming, aside from movies.

Mobile television stagnates. The energy crisis restricts travel and only nomadic consumption gains ground, fueled by the increased number and variety of dedicated devices. Yet it is still unable to generate additional direct revenue. Trains and planes are equipped with dedicated systems and channels can be viewed in 3D in key public locations.

No alternative source of premium content has emerged on the Web. Convenience services are available, but are controlled by television distributors, who round out the traditional broadcast offerings with hybrid STBs. As a source for visual content, the Web is nothing but an accessory to broadcast networks.

For the most part, television is broadcast by managed networks offering adequate quality of service to produce a satisfying "television" experience. This primarily depends on increased integration of multi-terminal management within households. The dominant networks are the ones that combine a network with guaranteed quality of service and control over the user interface - not just on the TV set, but also on all of the other terminals in the household.

Networks' market shares have marginally changed in every country. Cable and ADSL have converged toward fiber-optic networks, which remain limited to urban areas. They become advanced managed networks that control a multifunction box - the central component of the digital household. But terrestrial and satellite broadcasting push back with their ability to offer nomadic solutions and with the size (in some countries) of the areas not covered by ADSL/fiber-optic or cable.

Despite the impact the 2009-2010 economic crisis has had on their advertising revenue, TV channels have succeeded in stabilizing their resources. Ad rates continue to be affected by the crisis, leading to consolidation in the sector. In particular, theme channels face competition from convenience services (VOD, catch-up TV). But repeated Web player bankruptcies have made it clear that the Web is not a feasible alternative for advertisers. As a result, this period of consolidation is followed by a return to higher rates.

Change can be seen in the programming offered by the major channels. They push their event-based programming over drama, because "off-TV"

time is harder to monetize than a real-time audience. Sports rights become more profitable, while dramatic content, which has become too costly to produce, gradually disappears from prime-time programming, just like movies before it.

Given the economic crisis, the public authorities gradually withdraw their support for public service channels. These channels have been unable to bring in ad revenue since the 2009-2010 downturn. Then a wave of privatization limits the reach of the public television sector.

Ultra high-speed connectivity and the mobile Web fail to live up to their promises. Telcos are forced to find alternate growth engines. Initially they edge their way into distributing television services, and then move into TV broadcasting, capitalizing on the trend toward consolidation in the sector. Given the economic situation, regulators decide not to stand in the way of this vertical integration strategy.

With the lack of appealing programming on the Web and the limited rollout of fiber networks, the push for connected consumer electronics fails for the most part. Manufacturers are unable to find a way to integrate value-added services into their devices and remain dependent on network operators, at least in the audiovisual market. Apple TV continues to be merely a niche product.

The Web players fail to metamorphose into premium content distributors, which remain under the thumb of traditional distributors. Google is unable to extend Android to TV and Yahoo! is no more successful in pushing its API than Microsoft is in imposing Windows on the tube.

Scenario #3: Community TV

Social and political instability leads the public authorities to expand their control over the network, seen as a tool for exerting their sovereignty. Information technologies are no longer viewed as simply an invasive threat to privacy, but also as a potential public health risk. At the same time, general distrust for the government pushes people to cluster into communities. Citizens withdraw into their own tribes and only use the network from within these closed communities, based on taste and subcultures.

The increasingly powerful role communities play leads to audience fragmentation. The major television channels fall below the line that had made them mass media. Highly specialized local television channels witness a new boom in popularity - mostly in the Web TV format. Because their focus is primarily community-based, they are able to integrate into private social networks. Capitalizing on people's relative dissatisfaction with the main live channels, on-demand consumption gains ground.

Collective nomadism is prospering, commensurate with migrating populations. But these poor workers do not have the financial resources to pay for high-performance mobile services. Tribe members connect on nomad hubs and supply the local network with stored content.

The digital household is still a do-it-yourself phenomenon. ISPs on managed networks have been unable to impose their solutions in a market that is still quite fragmented. In addition, consumers have collectively rejected the implied DRM solutions. The PC - loaded with advanced communication encryption technologies provided by hacker communities - is the central component in the digital household.

Public channels' relative share in the broadcast market is on the rise. The public authorities see them as being an indispensable tool in maintaining social ties. Under strict governmental control, terrestrial networks also play an essential role in broadcasting these public channels. But private over-the-air channels - starting with the theme channels launched when DTT debuted - have abandoned terrestrial broadcasting due to the predominance of Web TV. The other managed networks' market share has also dropped, to the benefit of the open Internet.

Amateur content production is on the rise and fuels these theme Web TV channels. Premium content production suffers because the major television channels are losing their audience. Citizens' opposition to centralized personal identification features in ICT has led to increased piracy. Premium content is essentially funded by a few pay-TV channels that are limited to higher income viewers. The major TV program production studios have adopted varying strategies. Some pursue wide syndication of their programs with local social network operators, while others continue to combat piracy by restricting their programs to traditional channels.

The ad market has experienced significant growth. Mass media advertising has given way to location-based direct marketing, and local advertisers begin to dominate market share.

Stagnation in the content market means limited investment in innovation on the part of Internet service providers, consumer electronics manufacturers and producers. The connected TV set and 3D have failed to gain a foothold.

Telcos have been unable to take on the role of content service aggregators. They provide end-to-end access services and the service platforms that host social networks and Web TV. The major social networks have split into private and semi-private networks and have failed to capture a significant share of the ad market because Web users widely refuse to be identified in order to qualify for service. Combining products sold by individuals and professionals, eBay has become the dominant Web player by integrating the local dimension into its services. The digital household remains a limited phenomenon: 3D has failed to take off and there is limited advancement in STB technologies. As a result, the consumer electronics industry takes a hit. The industry responds by combining devices and content for the wealthiest handful of consumers. Regulators finally step in to control the local markets.

■ The economic impact

Based on the review of the key trends, we believe that as of today, "My Video Web" is the most likely scenario. Yet for this scenario to come to fruition, a few key conditions must be fulfilled:

- relative economic prosperity, to fund the roll-out of fixed and wireless broadband access;
- the widespread rollout of fixed and mobile high-speed connectivity;
- a highly competitive environment characterized by a lack of integration between content publishing and distribution and by wider regulation that addresses major Web players such as Google;
- the effective implementation of standardized interfaces for the digital household and consumer identification technologies;
- an increase in ad formats that combine compensation for media content with sales of products and services;
- general publics' acceptance of personal identification measures.

The advertising market

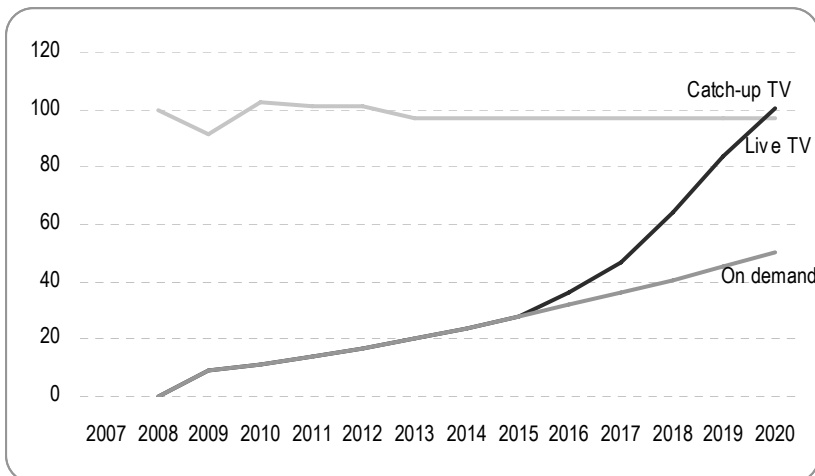
According to the My Video Web scenario, the TV/video advertising market is expected to go through three phases:

- a modest rebound following the 2009 economic crisis;
- a new period of difficulty beginning in 2012-2013, as a result of heightened online competition;
- a new rebound beginning in 2012-2018, with the stabilization of the online ad market and the rise in ad rates. It is our estimation that the European market will fare better than the North American market in terms of destruction of value by the Internet, as the Web advertising market is developing faster in the USA.

According to our estimations, the average annual advertising growth rate over the 2008-2020 period will be close to 0% in Europe (in constant EUR). The linear advertising segment of the market will approach -3% in Europe.

The share of advertising related to non-linear content will reach 30% by the end of the period, with catch-up TV accounting for more than half.

Comparative profitability of video ads by service in the UK, 2008-2020
(100 base = live TV, 2008)



Source: IDATE

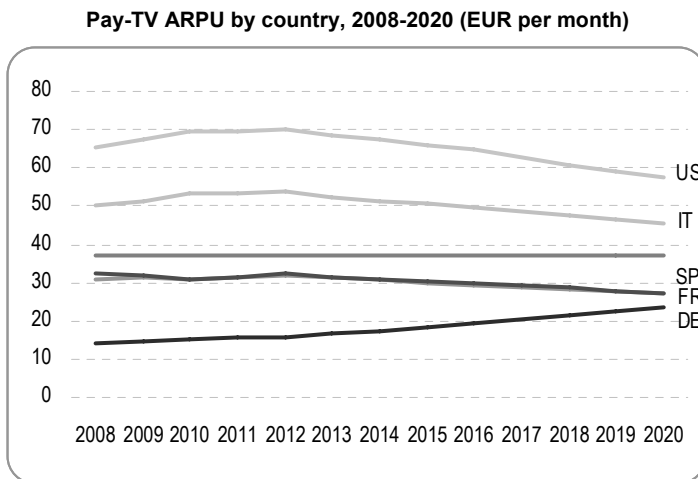
The pay-TV & video market

According to our scenario, the pay-TV/video market is expected to go through two phases:

- continued growth (despite the economic crisis) as a result of network digitization and the introduction of complementary services (PVRs);
- a transfer of revenue (more a factor in the US than in Europe) from pay TV to VOD, despite the fact that catch-up TV services are widely available from pay channels.

According to our estimations, the average annual growth rate for the pay-TV and pay-video market over the 2008-2020 period will near 3.5% in Europe (in constant EUR).

Given the preceding analysis, we estimate that the average annual growth rate of the total TV/video market over the 2008-2020 period will be 2% in Europe (in constant EUR).



Source: IDATE

■ The web migration

All the conditions for the television industry's migration to the Internet are now in place:

- consumers are comfortable with online visual consumption;

-
- technical solutions that give users access to Internet content on their television sets have been implemented;
 - open Internet access is possible from mobile telephones;
 - premium content is available on the Web;
 - online video quality of service is improving;
 - new players from industries related to the television industry have aligned their strategies.

While this migration will be gradual, it will have a deep-seated impact on the industry:

- the exclusive rights model will no longer be the standard : the same programs will be distributed simultaneously by competing platforms in the same market ;
- some consumers will abandon traditional managed networks;
- beginning of a globalization trend that will benefit the major rights holders.

Before television, the print media and music industries also had to face this migration to the Web, which can be defined by a marked increase in usage, service innovation, commoditization of information and music and extensive destruction of value.

These trends are already noticeable in the video arena:

- the Web is shifting to all-video;
- community-based video services;
- devaluation of video through piracy and content-network or content-terminal bundling;
- significantly lower ad profitability of online premium programs, compared to their broadcast counterparts.

Unlike the music and print media industries, the TV industry is gaining a strong position on the Web. As a result, television is poised to play a central role in video services. This offensive strategy will likely pay off down the line, but does not entirely eliminate the possibility of destroying value. There are structural reasons for this, including a fiercely competitive online advertising market and a lack of control over program circulation.

Far from being simply transitory, the economic downturn in 2009-2010 marks the onset of a decade of restructuring for the TV industry, which will begin with an overall decline in the sector's resources before increasingly varied consumption patterns spur a new period of growth.

These crisis-ridden years will have a profound impact on the sector. Primary rights holders will benefit from easier access to the end market. Middleman aggregators (channels, distributors) will be cut out, to a certain extent.

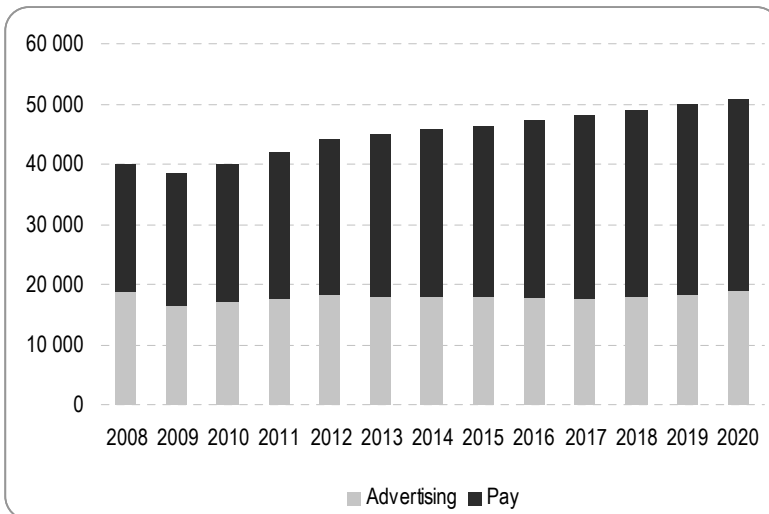
The decade running from 2010 to 2020 will also be a time of cost control, with the industrialization of TV production that will depart once and for all from its historical model, i.e. film.

This migration to the Web poses a threat to the European industry in particular.

The North American studios may be able to profit from the global marketplace and the growing dominance of Internet video to provide services to consumers directly, with little to no regulation.

A reassessment of the television industry's regulatory strategy appears both necessary and urgent, and will involve the creation of vertically integrated pan-European conglomerates, active both in programme production and distribution.

Total TV/video market in the EU big five, 2008-2020 (millions of EUR)



Source: IDATE