Reshaping the business of television

The television and media industry collectively must become the change it wants to see – otherwise it will face a future with **falling volumes, investments and profitability.** Regulators should not passively watch the power shift that is going on. **New regulation is urgently needed** to provide a level playing field and remove current obstacles.

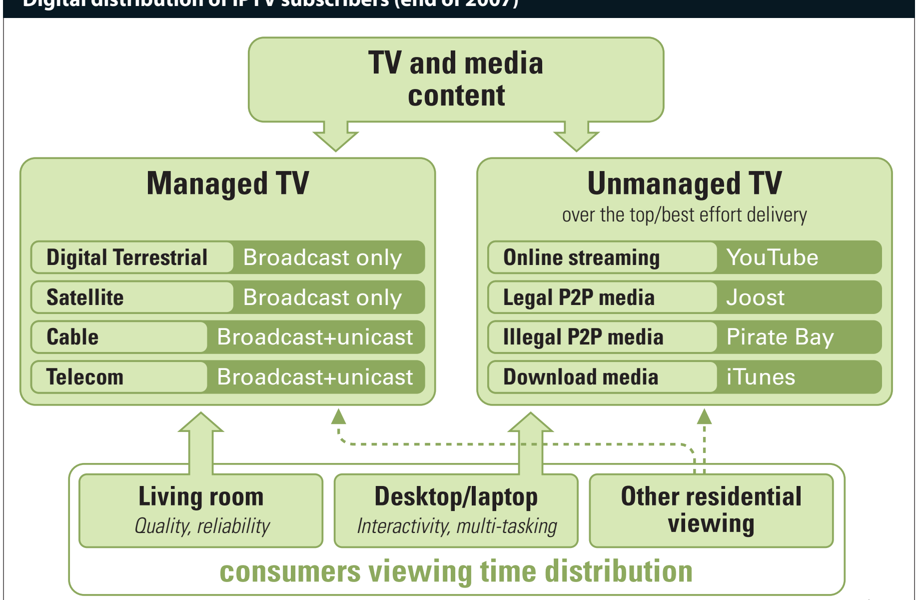
▶ **THE TRANSFORMATION** challenge for what is today known as TV and media, including public service, is immense. The incumbent-managed TV [*graph 1*] value chain is challenged by the internet delivery mechanism, the internet-software-advertising-based business models, trick-play features in video recorders (such as prerecording and fast-forwarding advertising messages embedded in programs), power-base shifts in the TV and media value chain, consumers' new expectations in customizing their media consumption, and the sometimes illegal peer-to-peer downloading.

Until the advent of high-speed wired and wireless broadband access networks, TV and media consumption was a one-directional scheduled entertainment activity, indulged in primarily from living room sofas. In addition to high-speed connectivity, a modern digital home today hosts multiple high-definition flat screens, surround audio systems, set-top boxes, advanced video recorders, accessory devices such as PCs, and peripherals including web cameras, game consoles, digital cameras, mobile internet devices, and mobile handsets. Penetration of these consumer products will increase as the cost of new technology falls, and they will all eventually become mainstream mass-market phenomena.

In addition, the internet has given consumers access to a wider choice of professional TV and media content, improved matching of consumer preferences to niches via social networking sites or search engines, and the ability to share user-generated content. Even more, internet-software-advertising-based business models have created a for-free consumer mentality in which advertising subsidizes online applications and content is provided by these stakeholders.

From a consumer perspective, all the above means one thing. Consumers have increased their control over media consumption (and low-end production) by choosing what to consume, when, where, and on which device. This means customization and ultimately personalization of media consumption. As these consumers grow older and replace older generations' media habits, their new behaviors and expectations will gain substantial market share and also become mainstream.

[GRAPH 1]
Digital distribution of IPTV subscribers (end of 2007)



Source: vnuet.com March 2008 SVENSKA GRAFIKBYRÅN

Recouping ads – and gaining more

Advertising is a vital source of income not only to all commercial TV and media distributors, but also to producers of content. This revenue source has been exploited by some internet-software-advertising-based businesses in their setup of unmanaged TV offerings, including both professional and user-generated content. Moreover, these value propositions have been embraced by advertisers, who increasingly are migrating their spending to online channels. Some of these new offerings aim commercial messages at relevant and potential consumers better than the conventional 30-second spot broadcast TV advertising model.

The improved matching capability has

shifted the power base in the incumbent TV and media value chain. It puts further pressure on existing relations, as content owners and conventionally managed TV and media distributors respond to advertiser new-spending preferences. Content owners are moving downstream in the value chain by increasing their own retail distribution capability when making their content available online. TV and media distributors are expanding their own portals by adding interactivity and on-demand features to capture lost eyeballs in the broadcasted scheduled channel.

This is ultimately about recouping lost 30-second spot TV advertising revenues. Content owners and TV and media distributors have responded so far by turning primarily to the unmanaged TV distribution mechanisms (meaning, the internet-based ones).

Advertising has to some degree become more targeted as unmanaged TV and media offerings customize consumers' TV and media consumption. A precondition for the emergence of this improved matching capability has been the presence of an IP-based access network that can handle interactivity, immediacy, and on-demand features. Networks facilitate and realize capabilities and services that are enjoyed by consumers, and these networks are continuously evolving. Some key steps in the evolution are:

- Telcos investing in IPTV, thereby complementing their conventional offerings of voice and internet access with TV and media content. The latter includes investment in content management systems, middleware platforms, increased access network capacity, and traffic management capabilities in metro, edge, and core networks. Such traffic management guarantees end-to-end quality of service as well as end-to-end control over and integrity of copyright management.
- Cable operators digitalizing their networks, adding broadband access, and upgrading their conventional offerings with voice and internet access services. In addition, imminent cable network upgrades will add IP multicasting (enabling true on-demand distribution to consumers, initiated at their request) and further increase the capacity of cable access networks. This will propel the realization of true, large-scale interactive and on-demand TV and media distribution in high-definition format.
- Conventional broadcasting networks being digitized, which improves capacity utilization and hence expands the number of channels available to consumers. In addition, high-definition transmission capability is improving the picture quality offered to consumers. Broadcasters are also acknowledging the importance of immediacy, interactivity, and on-demand capability by searching for hybrid solutions in which the downstream broadcast channel is complemented by an interactive return (upstream) channel typically facilitated via telcos' or cable providers' voice and data networks.

The incumbent-managed TV value chain has remained too long on the living room sofa and consequently has not been able to fully embrace the changes outlined above. At the same time, new market opportunities have been exploited by the unmanaged TV value chain, which has enjoyed a tremendous growth in TV and media consumption, both legal and illegal. As noted above, there are signs in the managed TV value chain that new capabilities in distribution, such as immediacy, interactivity, and on-demand, are increasingly being acknowledged by conventional stakeholders.

From a TV and media distribution point of view, interactivity, immediacy and on-demand – all facilitated via a bidirectional network, IP, and high-capacity/high-speed access network – are key strategic capabilities. From a consumer perspective, these capabilities enable personalized media consumption: any content, any time, any place, any device. To put it simply, high-capacity, immediate, interactive, and on-demand access to consumers is queen! But distribution is not everything; other stakeholders have strategic capabilities and assets, too – so content is still king.

Improving the match between advertising messages and relevant consumers improves the financial returns on advertisers' spending. This is also a strategic capability.

Why new regulation is necessary

Both managed and unmanaged TV value chains face a number of different but crucial challenges. Many are commercial, but some are pivotal for the business environment that defines the scope of available strategies and business models for value chain stakeholders. In addition, symmetry or asymmetry in the business environment is of central essence. It defines, for each step in the value chain and possibly for each player in the value chain, its range of

Value chain stake holders

Business environment shapers
- Supra-national authorities
- Primary legislation (sector independent)
- Standards
- Selfregulation
- Sector regulation
- Policy makers & regulators

Industry players
- Telecom consumer equipment vendors
- Telecom equipment vendors
- Fixed/mobile network operators
- Public service content & distribution
- Cable operators
- Satellite operators
- Premium programs/channels
- Retail distributors (stores/rentals, cinemas)
- Brokers of advertising/payments
- Advertisers/public funding
- Content rights owners/aggregators
- Content producers
- Internetcompanies
- Software & application vendors
- Consumer electronics vendors

What is IPTV? Technical definition

- IPTV = Internet Protocol Television
- A digital TV service delivered over a managed network using the internet Protocol
- Delivery over a quality-controlled (managed) network. "Internet TV/ web TV" is a TV service over an unmanaged network and/or the public internet with a best-effort delivery mechanism. IPTV is an interactive managed TV experience that can be realized over copper, fiber, cable and MMDS (multichannel multipoint distribution service using microwave frequencies) access networks
- The client is a TV-centric device (a set-topbox). The media stream can be realized over three screens, such as a TV, PC and mobile terminal.

Interactive managed TV – market drivers

MARKET DYNAMICS
- Analog TV close-down
- Digitization of content
- Internet renewing the ad market
- Mobile attack
- Cable attack
- 3-Play war
- Telco defense
- Open network initiatives

TECHNOLOGY ENABLERS
- L1-L3 QoS
- GPON
- IGMP
- GE WDM modules
- MPEG4
- Unicast
- IMS

CONSUMER PULL
- TV size-depth disconnect
- Flat screen sales
- Trick play
- On demand
- PVR
- Traffic growth
- Internet behavior
- Time shift
- Long tail
- HighDef

strategic options, available businesses models, and return on investments.

All this brings regulation into the picture, as regulation is about exerting control over business environments. From the broad value chain perspective, a number of key business issues have emerged, some potentially needing regulatory attention:

- Rivalry has increased, primarily between cable and telcom operators, as they have entered each other's "home turf" – voice, internet, and TV/media. However, each home turf has historically been regulated separately with different policy goals and by different regulatory bodies. This has resulted in an asymmetric situation that creates an uneven playing field.
- Unnecessarily high risks are associated with the sizable but necessary up-front heavy investments in next-generation networks. Clarity and predictability in regulation of these new networks is urgently needed to decrease the risks under which these enormous investments will be made. This is key for continued evolution. In addition, because of regulatory asymmetry between cable and telcos in many national markets, the risks associated with investments in new networks or control over existing access networks are unevenly distributed between cable and telcom service providers.
- Increased flexibility in managed TV and media distribution is essential for meeting consumers' expectations for personalized media consumption. Unlocking hurdles that hamper consumer choice is absolutely necessary.
- Continued evolution and further rollouts of networks will increase bandwidth and penetration. As service providers continue to offer best-effort internet access, consumers will have the option of uploading or downloading copyright-protected content. Content owners will lose potential revenue streams and look for ways to compensate for this loss via copyright levies on devices, broadband access fees, and other measures imposed on service providers who are claimed to be facilitating the illegal conduct. At the same time, content owners are making their content available online, thereby competing with managed TV and media distributors, who have traditionally handled distribution.
- Internet-software-based models don't invest in access networks and hence do not face the associated risks. Conversely, they typically do not invest in production of professional content and do not face the risks associated with online content piracy. However, their business models do rely on high penetration of bidirectional, IP-based, high-capacity/high-speed networks and the breadth of available online content, both professional and user-generated. These business models are optimized by maximizing access to and availability of online content to consumers, and maximizing advertising-driven top and bottom lines by improving matching capabilities. They create incentives to gain access to service providers' broadband networks without restrictions (for example, arguing for prohibition of traffic management) and also for softening up copyright legislation to make more content available online at no cost.

The first question is: Can regulators solve these problems? And if so, what can they do?

Based on internal and external independent third-party research conducted in 24 national markets, we found that there is an important role for regulators to play. First, introducing more symmetry in the regulatory environment surrounding the entire value chain – let's call it converged regulation – can further a business environment where success is, to a lesser extent, based on arbitrage in outdated sector-specific or vertical regulation. Second, regulation needs to embrace and adapt to consumers' expectations to personalize their consumption of TV and media, which is frequently done in combination with other rich-media-communication information exchange.

By adopting this perspective, regulators can aid in the removal of hurdles in the managed TV and media value chain, where they prevent consumers from making personal choices. This would also benefit value chain stakeholders by increasing demand for new interactive TV and media as well as communication services and demand for targeted pull advertising.

Regulators should think convergence

The following considerations should be taken into account by policy makers and regulators:

Regulate applications and services, not technologies. In a technology-converging world it does not make sense to regulate technologies, as they have evolved from vertical single-service networks to horizontal multi-service networks.

Remove asymmetries in vertical and sector-specific regulation, creating a level playing field between different service providers, such as telecom, cable, satellite, and terrestrial.

- Regulating services, not technologies, will remove barriers and unfair advantages related to specific technologies.
- A platform and device-independent public service funding model can transform "must-carry" to "right to carry" public service content to any device by any network.

Stimulate market entry and evolution of personalized managed TV and media distribution.

- Create soft regulation on early-phase interactive and personalized offerings such as IPTV – independent of underlying transmitting technology or hybrid solutions.
- Encourage an investment-friendly non-government network framework. Efficiencies can be gained by sharing passive infrastructure such as civil works and ducts, which make up the lion's share of access network investments.
- Increase the speed of digitization of broadcasting networks and promote early analog terrestrial switch-off.

In order to adapt to new consumption patterns, regulators should:

Remove hurdles that prevent consumers from personalizing their TV and media consumption.

- Endorse a global open standard for key set-top box interfaces, which will guarantee independence from the transmitting network, hardware-based encryption mechanisms and service providers.
- Endorse a global horizontal device and set-top box-independent open standard for conditional access and digital rights management.

Endorse unbundling of managed TV channel programming as an option to linear or scheduled transmission.

- Give consumers the ability to time-shift and personalize.
- Minimize the time span between linear, scheduled, and on-demand content, making on-demand services more attractive.
- Deliver linear and on-demand content without differences in quality and service, so that they are not subject to choice based on distribution quality.

Improve the publishing rights clearing systems by promoting: **Competition, fairness, neutrality and efficiency:**

Subject collecting societies to competition; for example, rights holders should have the ability to choose a representing collecting society (local or regional coverage collecting societies), and licensees should have the ability to choose local or regional coverage collecting societies or the rights holder as licensor.
Subject collecting societies to the obligation to offer licenses on fair, reasonable, and nondiscriminatory terms and conditions, including royalty levels.

Create technologically neutral systems designed to accommodate different business models rather than technologies (including devices and terminals, and distribution networks).

Create a central (possibly at regional level) authority that facilitates cross-border clearance of rights and monitors stakeholders.

By embracing these changes, a modernized market environment will increase incentives for all players in the managed TV and media value chain. Decisive steps must be taken away from the living room sofa connecting the rest of the digital home and its residents – even when they are on the move. Accordingly, these new incentives will transform scheduled TV and media offerings to meet consumers' growing needs to personalize their media consumption by giving them the choice of what, when, where, and on which device to enjoy TV and media.

AUTHORS

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