Rai

Sipra

Le nuove frontiere della TV e dei Media
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TV : A STABLE ENVIROMNENT SINCE 70 YEARS

1940 — Video display only for Live TV

2010 — Increased A/V quality : COLOR DIGITAL SD, HD

Increased numbers of TV Channels

...But fundamentally nothing changed

# Conventional Television strengths

- Broadcast networks are the cheapest way to carry high quality TV programs, at the same time, to millions of consumers

- TV is the ideal media for "live events"

- TV creates "users communities" (although passive)

- Solid business model based on public fees and/or publicity and/or subscription

Evolution trends: technical quality

Conventional TV evolves in technical quality

BW → COLOR → DTV → HDTV → UHTV (4k, 8k,..) → 3D-TV

Efficiency increase

Technical quality increase

Bandwidth

time
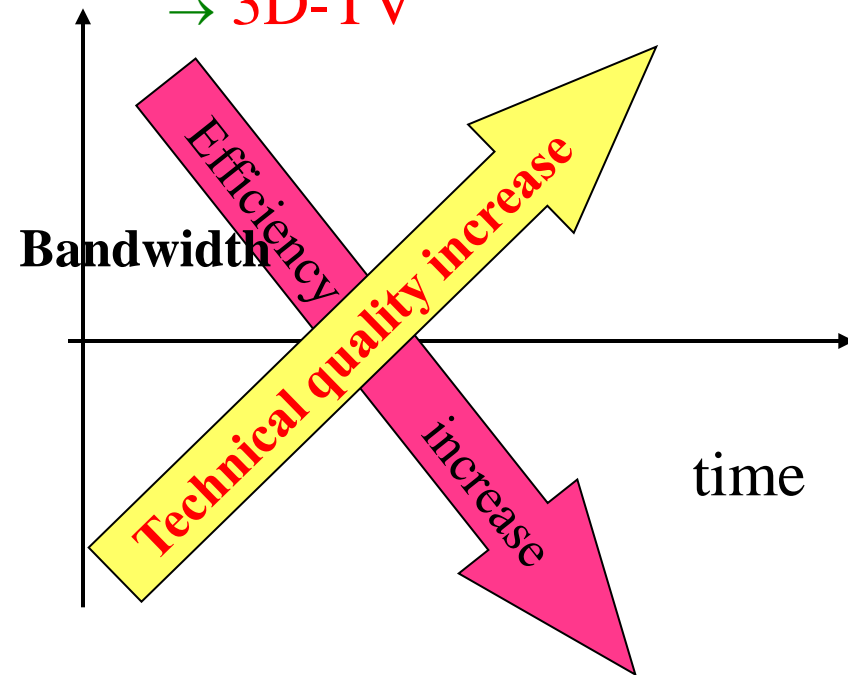
DVB→DVB-2; MPEG-2→H264 →H265

R-Evolution trends: interactivity

Young generations are more often chatting and blogging and surfing the Web through their personal computers than laying in front of the TV set together with their families.

TV content is already dominating Internet traffic for personal computers (You-tube , BBC i-Player, Rai.TV)
It is **now ready to move from the PC to the TV screen.**

IBM Business Consulting Services

IBM Institute for Business Value

Media and Entertainment

The end of television as we know it

A future industry perspective

2004 ?

IBM

R-Evolution trends:
TV everywhere? Virtual Reality?

- **Mobile-TV , TV anywhere**

- **Today game-consoles share the screen with television. In the future, will these two worlds somewhat converge?**

- **Enhanced reality**

- **Virtual reality / virtual participation**

Lessons learned from the past

- **Maturity of Technology:** technical quality, Quality of experience (i-phones,…)

- **Good Match with the human psychology**

  - But some needs may be hidden and must be "awaken"

  - And human psychology may change over time

- **Business model sustainability**

  - Cost of networks, of services and of consumer devices

  - Revenues, presence of gate-keepers,…

- **And.. it may take many years to reach a broad audience**

TV goes Broadband

Recently, Public broadcasters started to deliver TV and multimedia content in IP format, to exploit the "ON DEMAND" features:

- **Web-TV** over open Internet connections, for PC user terminals (BBC i-Player, Rai.tv, MediaTek, TDT Spain,...) Pros: broadcasters fully control their Brand/offer. Cons: limited picture quality and poor service continuity

- **IPTV** over Telco managed "closed" networks, for TV-sets connected to a BOX. Pros: quasi-broadcast quality. Cons: broadcasters are only "content providers", service offer and user profile controlled by Telco

Hybrid Broadcast/Broadband Services on the open Internet (OTT)

Since 2009, new hybrid consumer BOXes and TV sets offer access to Broadcast TV and Broadband TV over the Open Internet (over-the-top)

**Connected TV:
a TV set capable
of Internet access
(surfing on You-
Tube…)**

Hybrid TV is more than ConnectedTV

HybridTV creates a holistic and intuitive TV-centric user experience by seamlessly tying linear and non-linear (online) services together

HD Videotext

Visual radio

EPG

Mediathek

Current news

The advantages of OTT - HBB

Advantages for consumers:

● new dimension for "TV content": ON Demand means ANYTIME

● freedom to select ANY CONTENT PROVIDER (no walled garden)

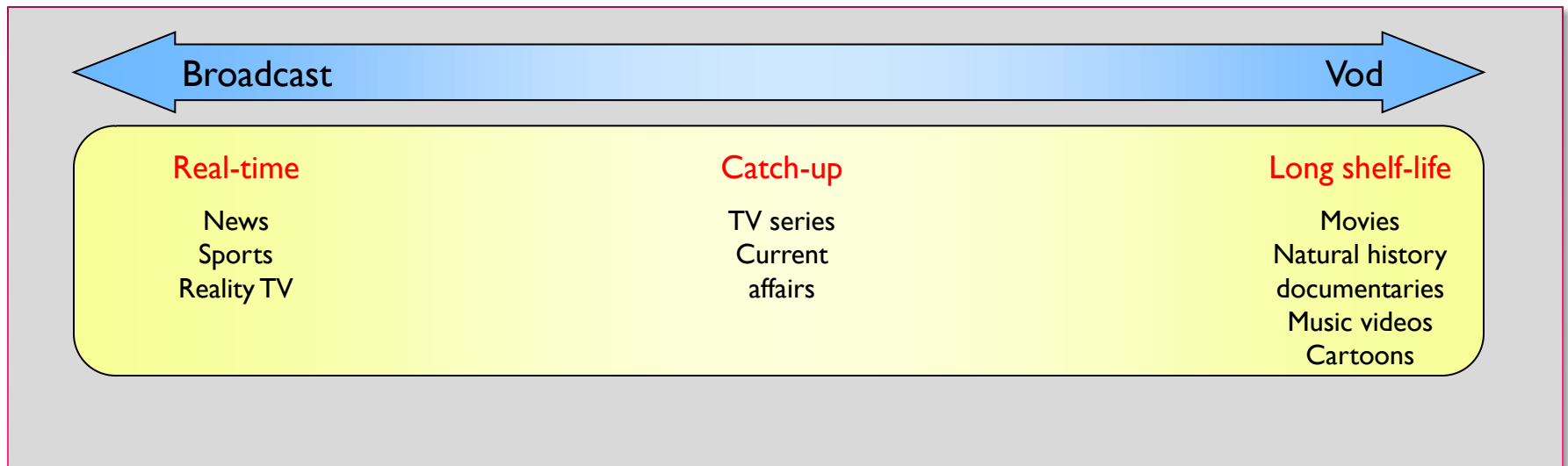● freedom to select the Internet Service Provider (ISP)

Advantages for PSBs:

● new services: ON DEMAND offer, pay or free, catch-up, long tail, interactive services,…

● Telcos are NOT gate-keepers as in IPTV: each broadcaster is free to define its offer and publish it on the web

● Direct connection with the final user: statistics, profiled advertising,…

Gartner's wiew (Adam Daum)

■ **OTT-TV is moving from the PC to the TV**
  - But pure-play OTT-TV services will be niche
  - And pure-play IPTV will remain niche (mostly)

■ **Hybrid broadcast-broadband services will be the next major growth area**
  - A natural enhancement for both DTH and DTT
  - Enabling many new services and revenue streams

■ **But, premium content providers may go D2C**

Broadcast ⟷ Vod

Real-time	Catch-up	Long shelf-life
News	TV series	Movies
Sports	Current	Natural history
Reality TV	affairs	documentaries
		Music videos
		Cartoons

But there are also threats for broadcasters

The Consumer Electronic Industry is proposing:

- different and **incompatible technologies**
  - Philips/Sharp/Loeve *Connected-TV*; Sony *Internet TV*, LG *Netcast*; Samsung *Widgets*; Panasonic *VieraCast*
- (often) a walled garden approach, where the content providers are displayed in a Industry controlled EPG/web page

> **Big risk of technology proliferation/divergence worldwide**
> **Risk of new gate –keepers (walled garden controlled by CE)**
> **Should Broadcasters repurpose their contents for each receiver brand?**

Broadcasters may **loose control of the screen**
- Widgets may display third-party content / applications on a broadcast program (e.g. commercials or unauthorized comments may be overlaid on a TV program)
- Content providers may directly reach consumers (more competition)

> **Big risk of loss of control of the screen**

The screen control

- **Avoiding third-party "invasion"**

  - **By technical means:**

  - **Technical/logical connection between the broadcast content and the selected interactive applications**

    - E.g. the broadcast channel broadcasts:
      - the interactive application developed by the broadcaster itself
      - the web-address of the applications related to the programs

  - **But… nobody can forbid the manufacturers to install independent web-connected applications (e.g. widgets) …**

The WBU (World Broadcasting Union) position paper
Broadcasters' obligations

- **Conventional TV Regulations** range from those intended to **protect the public** *(e.g.*, identification of broadcasters/content providers, emergency alerts, separation of editorial content and advertising), to those intended to **protect minors** (e.g. labeling/ sign-posting, restricted access to illicit or unsuitable content), to regulations designed to **extend the reach of television** (closed captioning/subtitling, accessibility services for people with a visual or hearing disability).

- These regulations are **incompatible with information overlay from a non-broadcast source, particularly from a source not controlled** by the originating television broadcaster.

- Necessity of a **new Legal Framework** to assure responsibility for safeguarding broadcasting consumption, particularly regarding the protection of minors.

- Necessity of **cooperation between Broadcasters and consumer Industry**

The WBU (World Broadcasting Union) position paper
(Overlay content presentation)

- **Making considerable investments in programs and services**, broadcasters have a vital interest in ensuring that the content they provide is displayed on screen in unaltered form, without unauthorized overlays.

- Moreover, **broadcasters need protection against the unauthorized exploitation of their services by third parties, *e.g.* where third parties might remove or add commercial communications**. Such practices would clearly undermine the broadcasters' mission and commercial revenue.

- *Thus, **no content or other material must be displayed on screen at the same time as the television picture** (whether as an overlay or in a separate frame) **without the informed consent** of the individual user.*

- At the same time, it should also be **acceptable for the broadcaster to consent to the presentation of cooperative third-party content** placed appropriately on-screen. For example, one may envision additional content in **a band at the bottom of the image, made available by shrinking/scaling the television picture** and any associated caption information.

Technology: An OPEN-STANDARD?

- **FTA Broadcasters *in general* support open standards:**
  - To develop a broad, low-cost, consumer market for receivers
  - To deliver content in a single format and control look&feel
  - To guarantee continuity of services over the years

- **… but divergent "open standards" are popping up at national level**
  - The **Open IPTV Forum** is defining a technical platform for IPTV and Internet-TV (OTT)
  - In UK, the **Canvas/Youview** project (BBC, BT, ITV…) is based on MHEG-5, Adobe Flash,..; The **DTG** is proposing a mixed solution (MHEG-5, CE-HTML, Flash, Microsoft DRM,…)
  - In France and Germany, a common platform has been defined under the **HbbTV** brand (largely based on OIPF specs, CE-HTML,..)
  - In Italy the **DVB MHP/GEM** solution is adopted (plus some extensions)

The Italian DTT and TV-Sat platforms

Open

- **A technological platform open and accessible to everyone**

  - **INDUSTRY** : manufacturers is capable to produce and sell receivers compliant to D-Book/HD Book specifications

  - **RETAIL**: Compliant receivers *are market certified product*

  - **END USERS** : are guaranteed their receiver is compatible with services

Interoperable

- **Italian DTT Platform: a rich FTA offer and many Pay TV services** with appealing **MHP Interactive services**

  - **Pay TV services** accessible trough different SmartCards on the same STB featuring multiCAS embedded (Nagra, Irdeto and Conax) or DGTVi CAMs for iDTV

Interactive

- **> 9 million MHP decoders on the market and some iDTVs MHP enabled are currently available as well**

Hybrid-MHP services

- **The MHP "Italian profile" represents a powerful environment where the development of compelling OTTV services is becoming reality**

  DGTVi members forecast by the end of 2010, more than 500.000* "Gold Label" compliant devices on the market *(both STB and iDTV)* supporting HD Book 1.0 specs + BA for the launch of a broad range of new MHP based OTTV services

*DGTVi assessment based on GfK sell out data

Italian broadcasters are developing interactive services exploiting broadband capabilities

DGTVi Broadcasters intend to offer new OTTV broadband services starting in 2011

- to enhance the traditional viewer experience with a **seamless experience** between broadcast and broadband services

- to offer new compelling services in the range of **VoD, CatchUp TV, virtual linear** channels in accessing audiovisual contents
    - **OTT counterparts of existing catch-up TV services for PCs by Rai (www.rai.tv), Mediaset (www.video.mediaset.it) and LA7 (www.la7.tv) are being launched very soon**

- to promote a new "**broadcast-centric**" Over the Top service approach

Rai.Tv portal on the Web (for PC)

- **May 2010: RAI launches RAI-Replay**

Hybrid-MHP Catch-up TV service

Will it look like this ???

But.. is Internet ready to support millions of users at the same time

- **No Internet infrastructure may today support some millions of On-demand TV streams without collapsing**

- **CDNs (Content Delivery Networks) are the technical means to by-pass the Internet bottlenecks for Web-TV:**

  - **The TV content must be moved and stored (just once…) near to the final users (POPs, DSLAMS,..): unicasting is limited to the last mile**

- **The current Internet Infrastructure has to evolve…. but the required investments are reasonably low (i.e.: hundreds of M€ per Country - as for DTT networks- , NOT of thousands of M€ - as for NGNs)**

- **FTTH will be necessary only in case of multiple HDTV on-demand services per home (but H265 will help ADSL?)**

Summary

- **OTT on-demand services will soon revolution the television experience:** *Broadcasters are ready to launch services*

- *They give new opportunities to the broadcasters for new on-demand services, interactive TV, profiled advertising*

- *A **legal framework** is necessary in order to guarantee a fair access to the screen, thus avoiding un-authorized content to be overlaid to a TV program*

Thank you for your attention !!!

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