Developments in Broadcasting & Interactive Multimedia Services

An overview of trends

ITU/NBTC Workshop
4 December 2014

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Presentation Overview

1. **Defining Multimedia Services**

2. **Service changes**
    - Service anywhere & anytime
    - Video on Demand & time shifting
    - Video quality enhancements

3. **Business model & strategy changes**
    - Advertising & Subscription models
    - Business strategy changes

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1. Defining Multimedia Services

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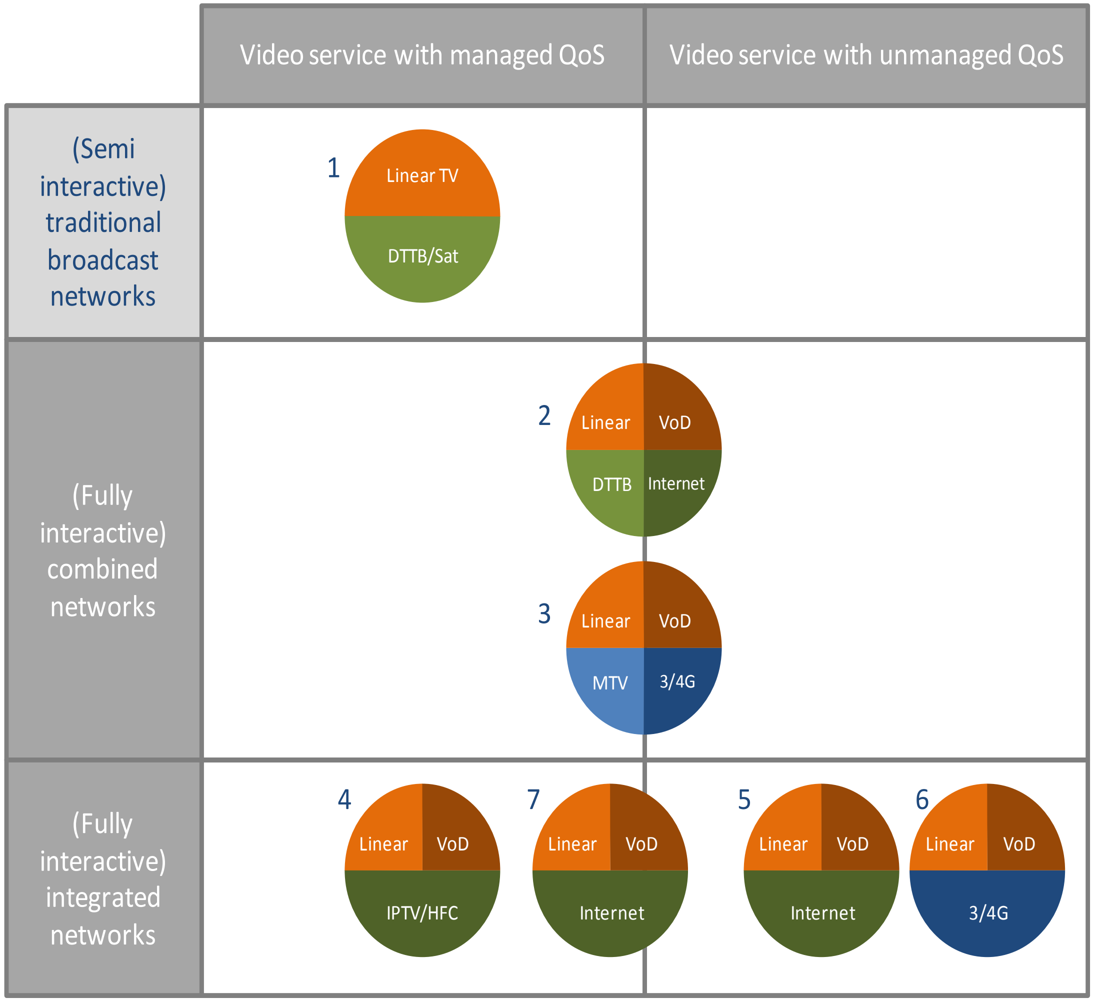

Source: ITU

- Interactive audio-visual services which are intended for public distribution and consumption
- 3 Dimensions:
  - Linear/non-linear
  - Managed/un-managed QoS
  - Broadcast/IP networks

2. Service changes

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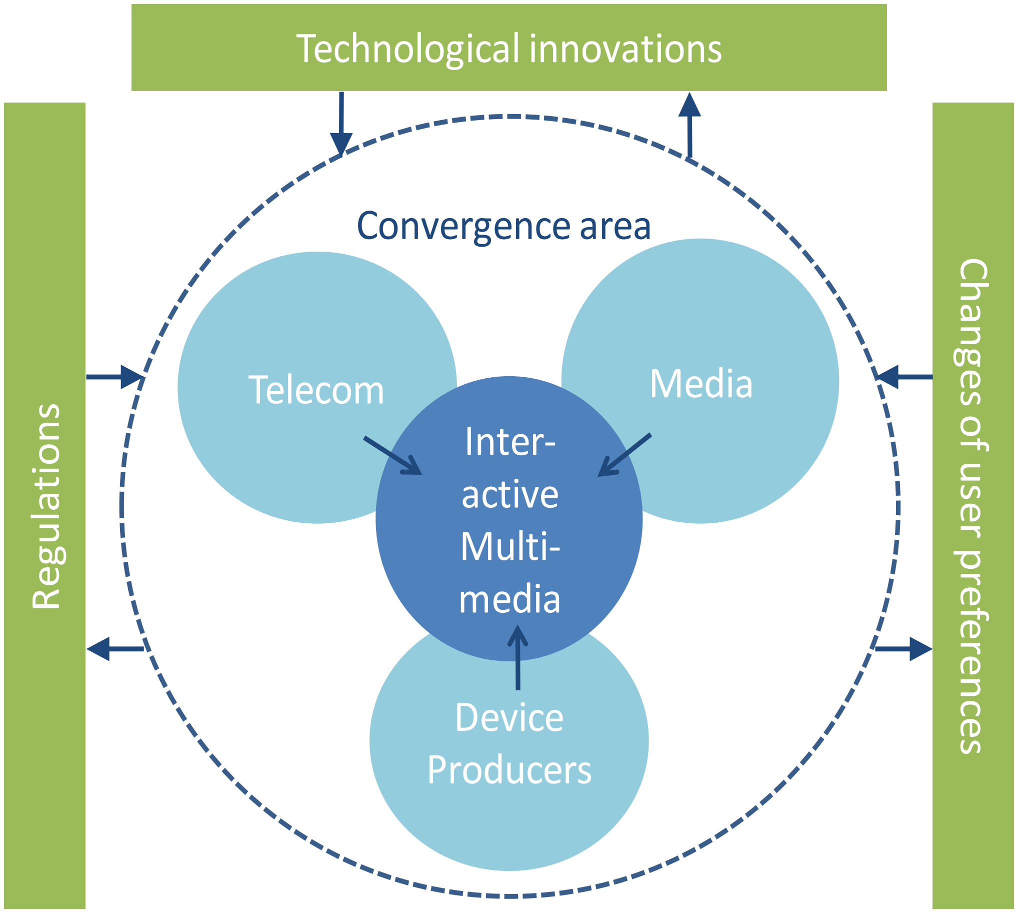
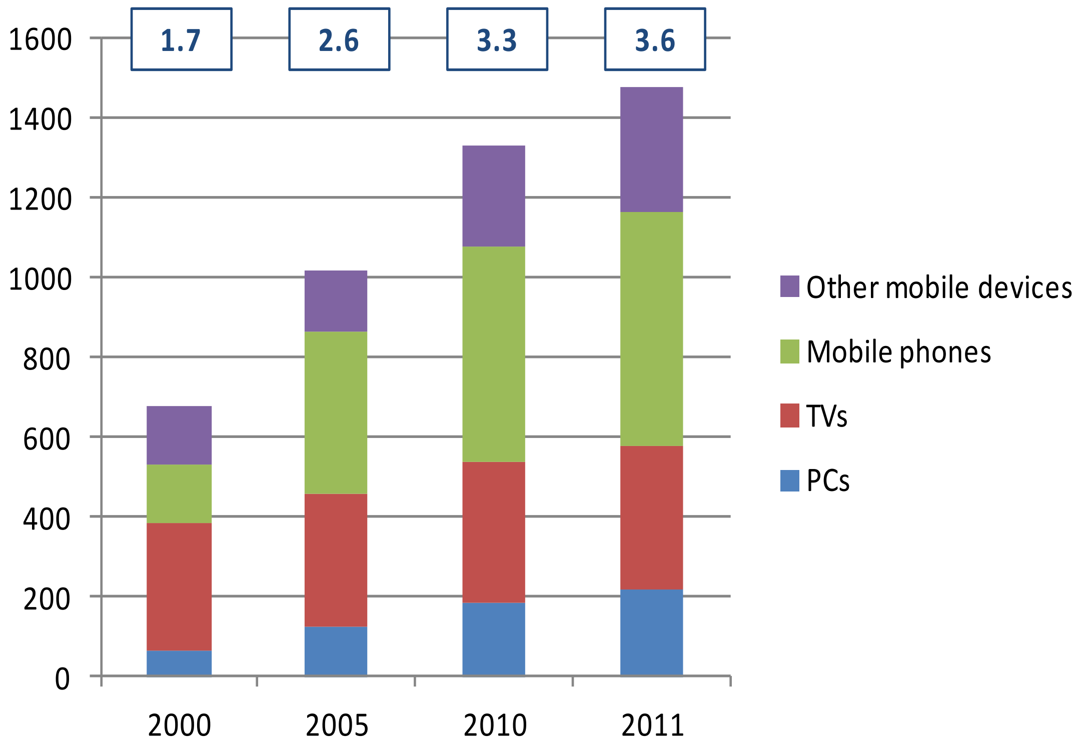


Source: Convergence Consulting Company

- Three factors driving changes in the interactive multimedia market:
  - Technological innovations
  - User preferences
  - Regulations
- Fundamental or evolutionary change?

2. Service anywhere & anytime: *more devices*

AVERAGE NUMBER of SCREENS per USER and TOTAL INSTALLED (in millions)



Source: Arthur D. Little, BNP Paribas

- With powerful connected devices users can consume their interactive Multimedia services
- Consumers use more screens to watch more television and video services

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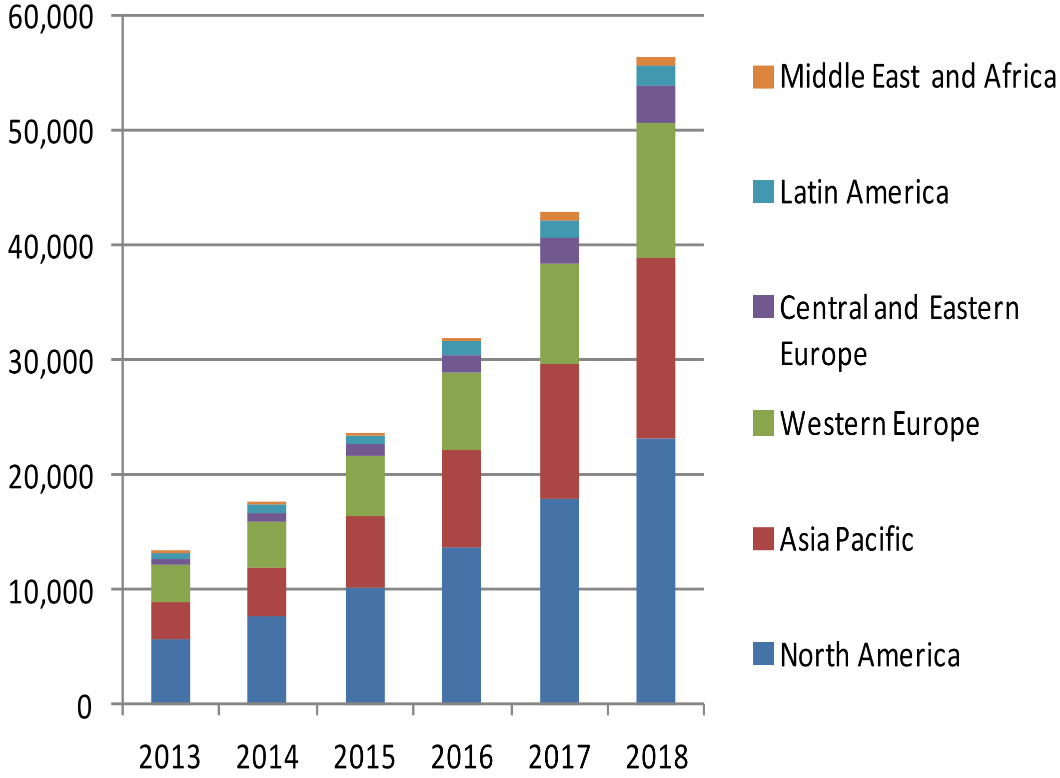
2. Service anywhere & anytime: more broadband

CDN TRAFFIC FORECAST by GEOGRAPHY
(in TB/month)



Source: Cisco Visual Networking Index

- Consumer IP traffic goes up (21% CAGR) > Business related traffic (18% CAGR)
- Content Delivery Networks (CDNs) designed to carry video
- Globally 55% of all Internet traffic will be carried by CDNs by 2018

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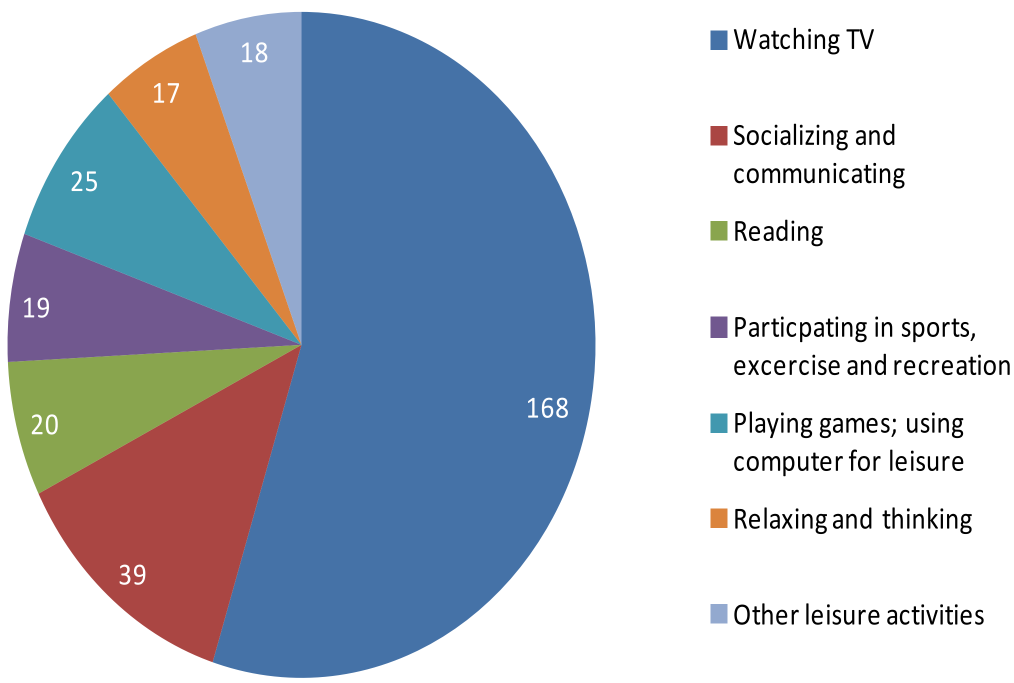
2. Service anywhere & anytime: more leisure time

LEISURE TIME SPENT per CATEGORY on AVERAGE DAY (in minutes)

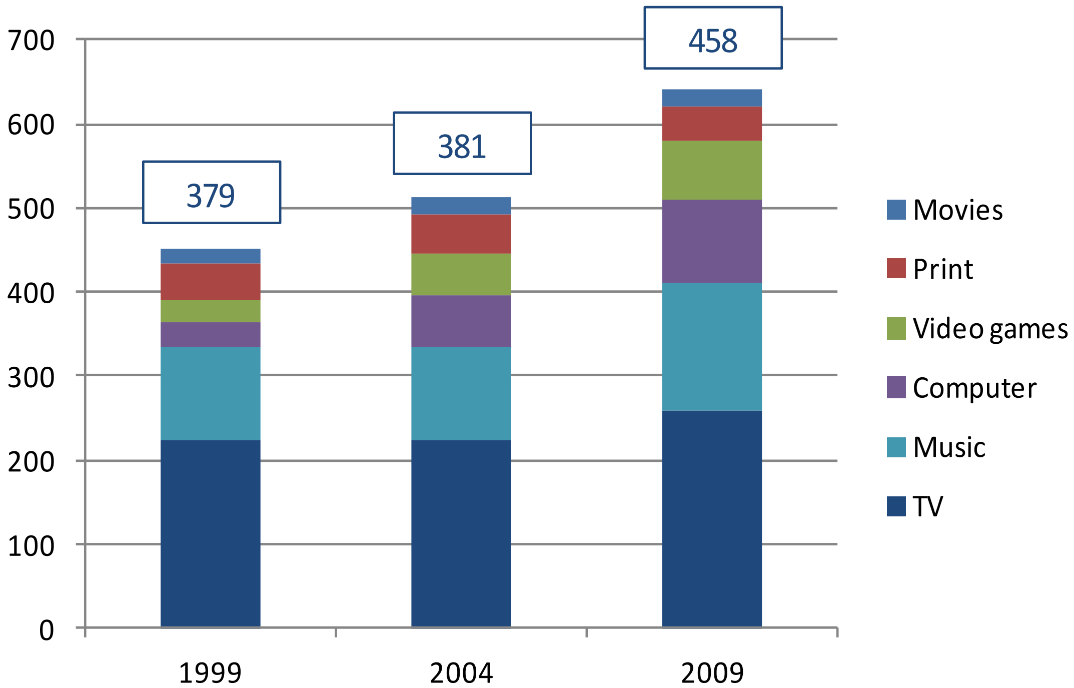


Source: American Time Use Survey, 2013

- For every additional free hour, 30 minutes goes into watching television
- All UK TV viewing = all time spent on all social networks worldwide (6.5 billion hours)
- Leisure and technology intertwined in several ways

2. Service anywhere & anytime: more multi-tasking

MINUTES of MEDIA CONSUMPTION per DAY (8-18 YR-OLDS)



Source: The Economist, 2010

- Multi-tasking is not new
- Multi-tasking is extended to more devices
- Most multi-tasking is media stacking (and not meshing)

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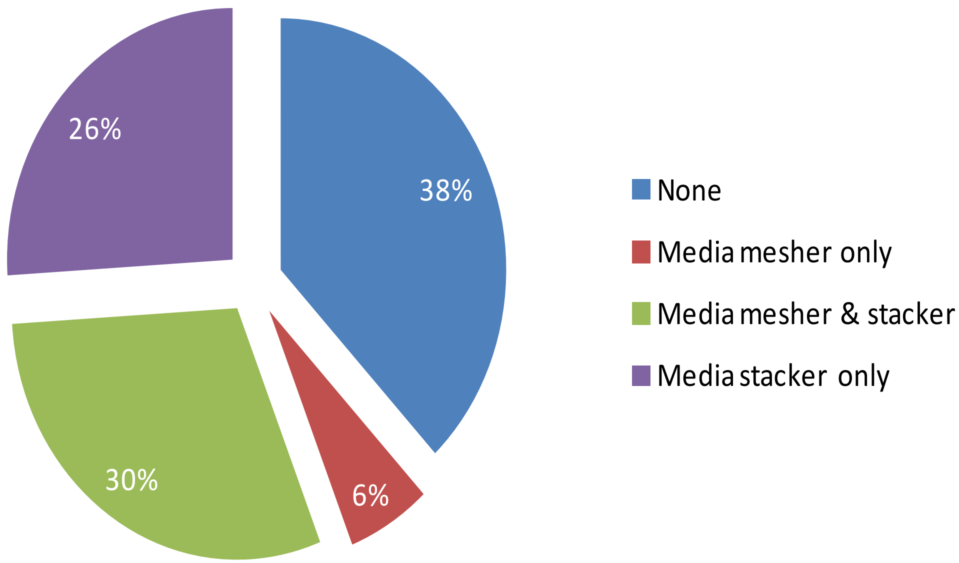
2. Service anywhere & anytime: *little media-meshing*

MINUTES of MEDIA CONSUMPTION per DAY (8-18 YR-OLDS)



Source: Ofcom, 2013

- A small percentage of media meshing involves activities directly related to TV programs (i.e. other then chatting about program)
- Meshing activities can potentially result in new revenues stream or extra customer loyalty

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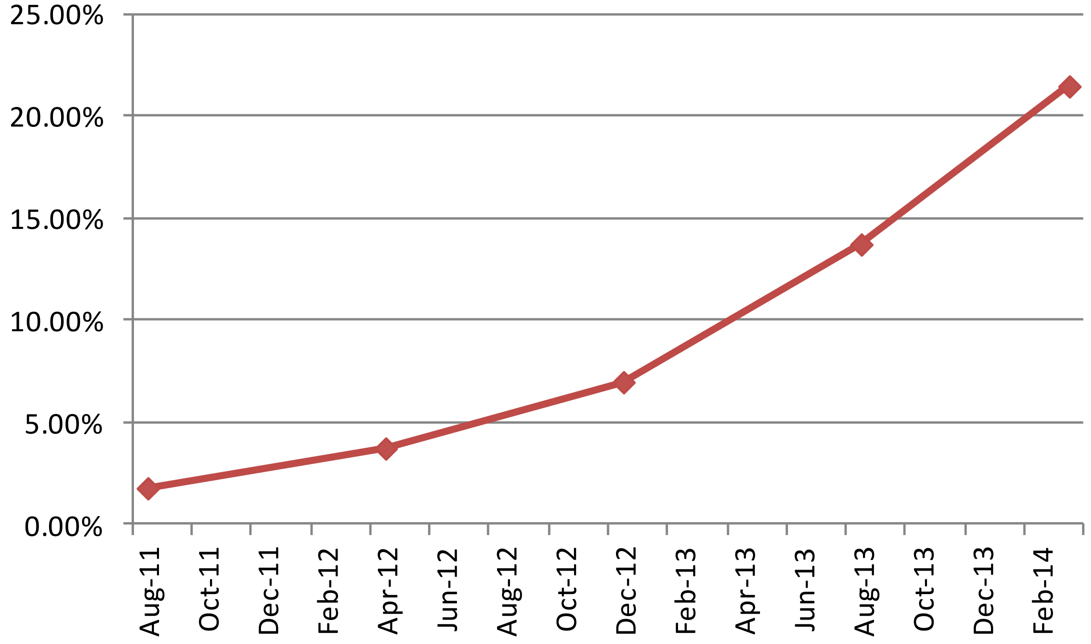
2. Video on Demand: *little impact (yet?)*

Share of Time Played on Mobiles and Tablets Combined

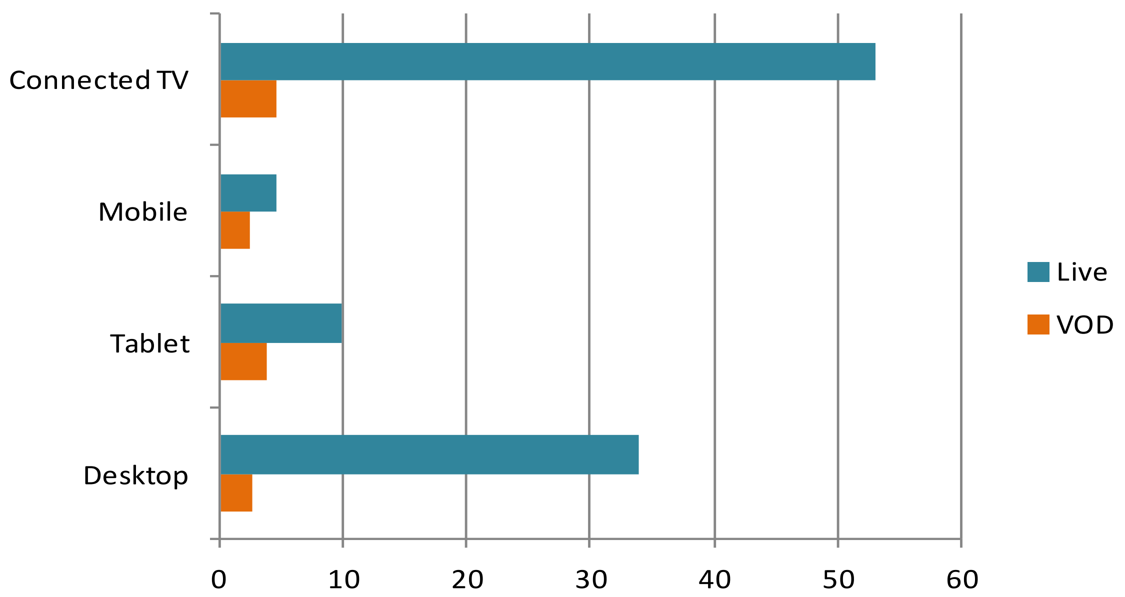


Source: OOYALA Global Video Index Q1 2014

- global demand for VOD is on the rise, especially on mobile devices like smartphones and tablets
- This trend is also observed in the Asia Pacific region

2. Video on Demand: *little impact (yet?)*

Average Watching Time (in mins) per Type of Content

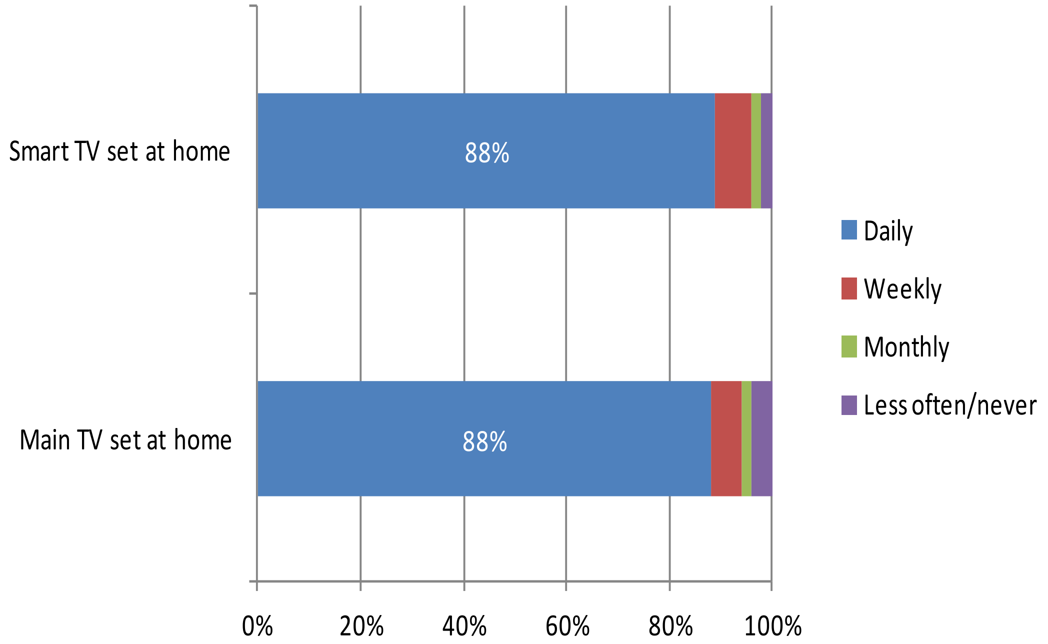


- Customer retention is much longer for live content than for VOD type of services
- implied advertising value of live content is significantly larger than for VOD

Source: OOYALA Global Video Index Q1 2014

2. Video on Demand: *little impact (yet?)*

FREQUENCY of VIEWING LINEAR TELEVISION SERVICE by DEVICE



Source: Ofcom, 2013 (adapted)

- On connected TV sets traditional viewing remains strong
- Most cited reasons for using VOD services is to catch-up TV broadcasts
- Connected sets on the rise and standardization of apps will result in more VOD consumption

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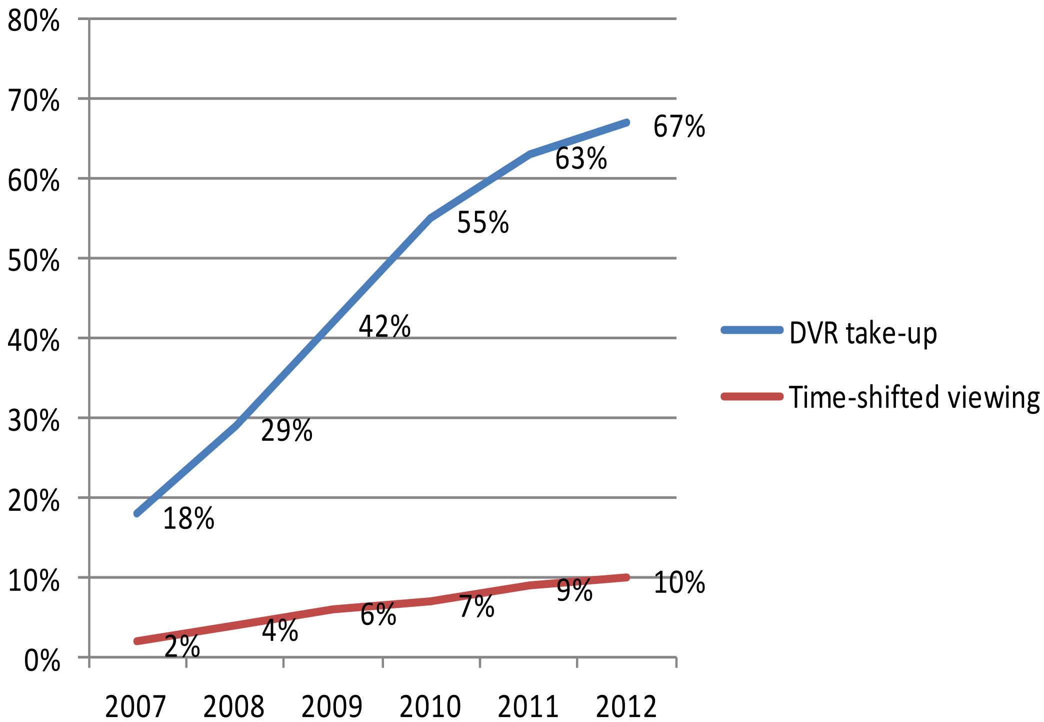
2. Time shifting: *little impact (yet?)*

TIME SHIFTING VIEWING and NUMBER of DVRS (% of all homes)



Source: BARB, 2013

- Disparity between the uptake of DVRs and time shifting
- OTT/IPTV functionality may change viewing behavior
- Time shifted viewing increased 22% in one year when broadband available (Australia)
- Households get smaller

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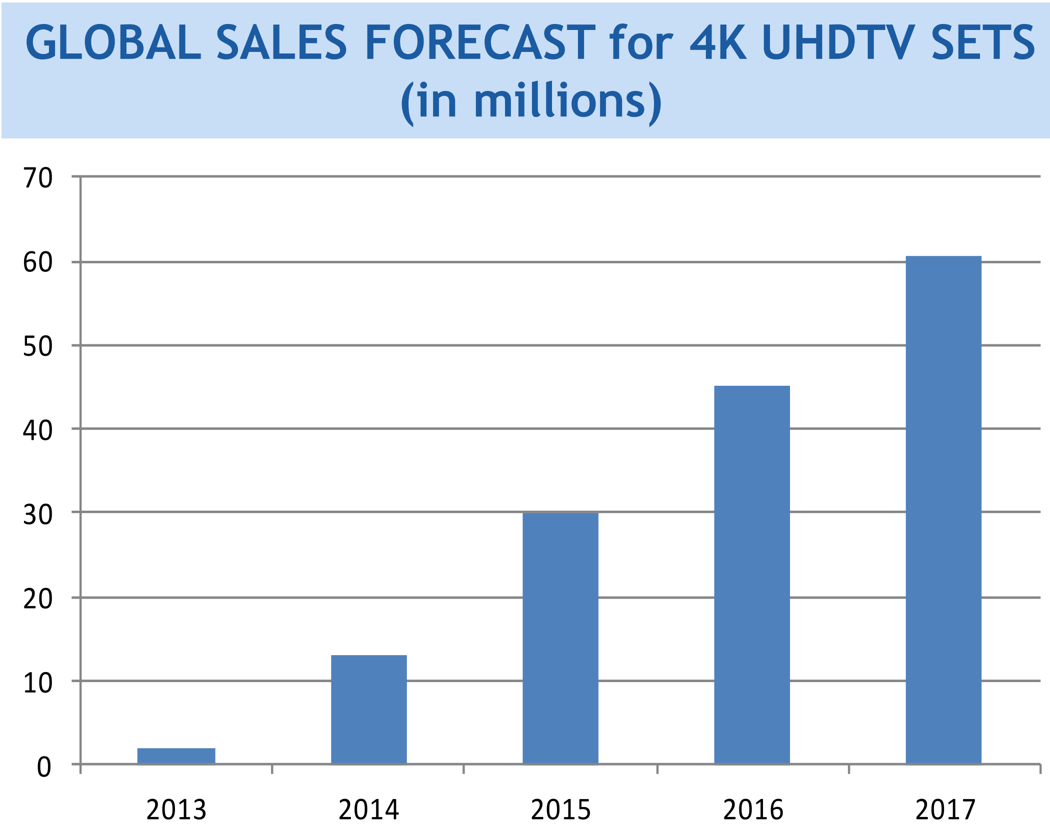
2. Video enhancements: UHDTV and 3D



Source: NPD DisplaySearch (adapted)

- Device producers set the market, broadcasters and distributors to catch up
- UHDTV1 bandwidth requirements vary from 40 to 15 Mbit/s
- Broadband availability limits OTT deployment:
  - Encoding efficiency
  - Transport efficiency
- Setting the market can be a gamble: 3D?

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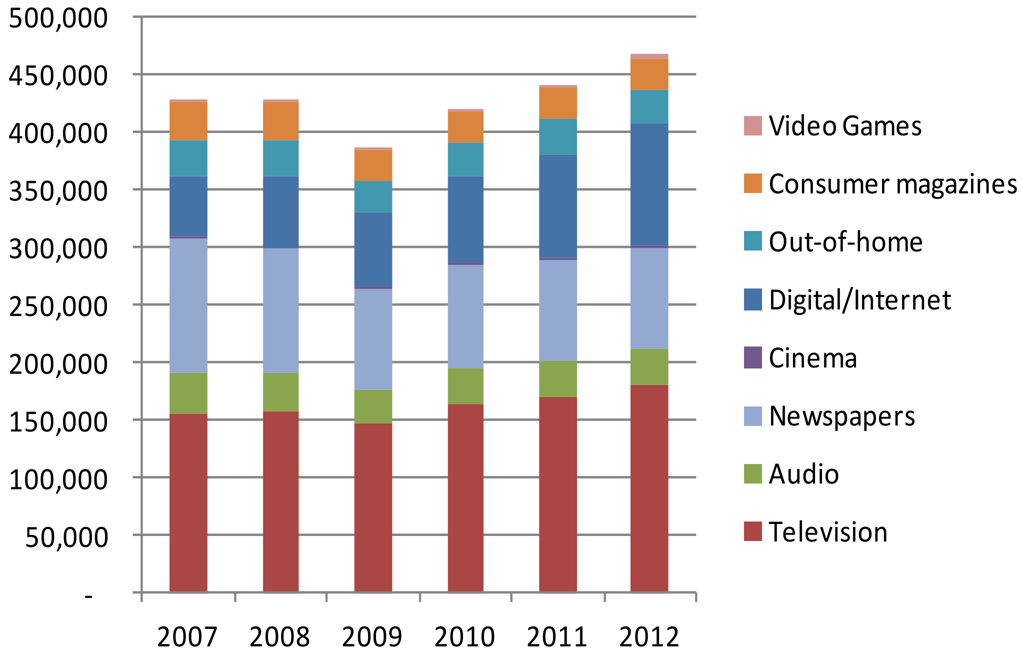
3. Business models & strategy

3. Advertising model: FTA TV still strong

GLOBAL MEDIA ADEX
(in million USD)

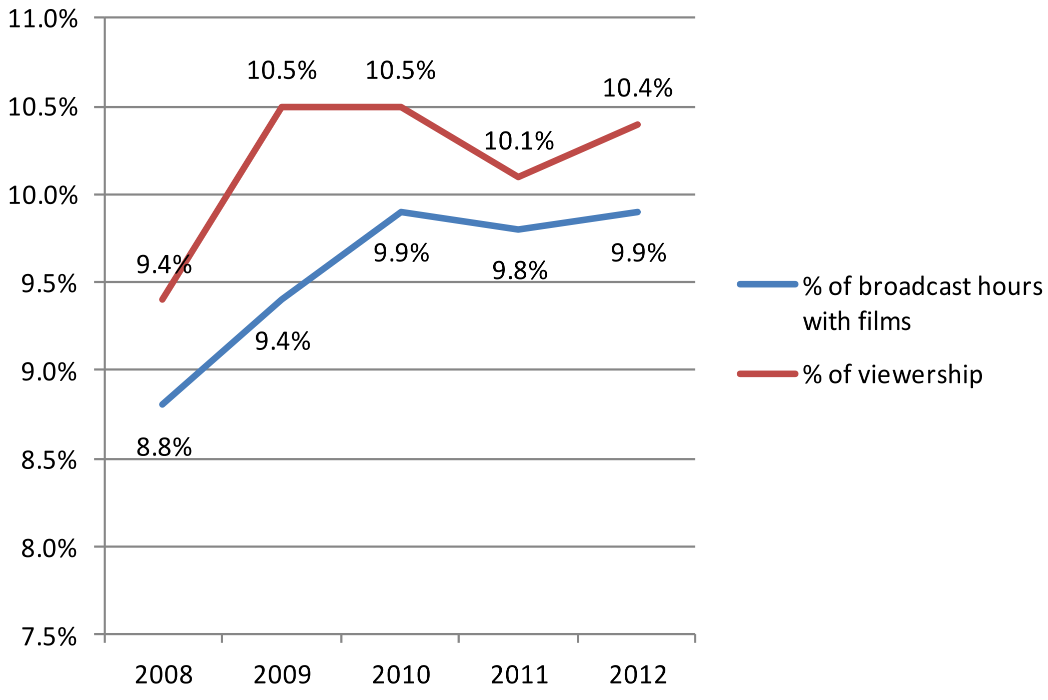


McKinsey, 2013 Global Media report

- TV: no other medium offering equivalent reach and quality
- Advertising / Free-to-Air (FTA) model needed for content diversity
- On average 50 TV ads viewed per day!
- Forecasts all point upwards, shift to Internet

3. Subscription model: *impact limited (yet?)*

GROWTH of VIEWERSHIP and NUMBER of FEATURE FILMS of TOP-5 BROADCASTERS



Source: European Audiovisual Observatory, 2013

- Broadband availability will facilitate OTT offers
- However impact seems limited (yet):
  - TiVo research: no difference between 'Netflix' and 'non-Netflix' households
  - Media stacking
  - Multi-play offers
- Strategic response: more feature films?

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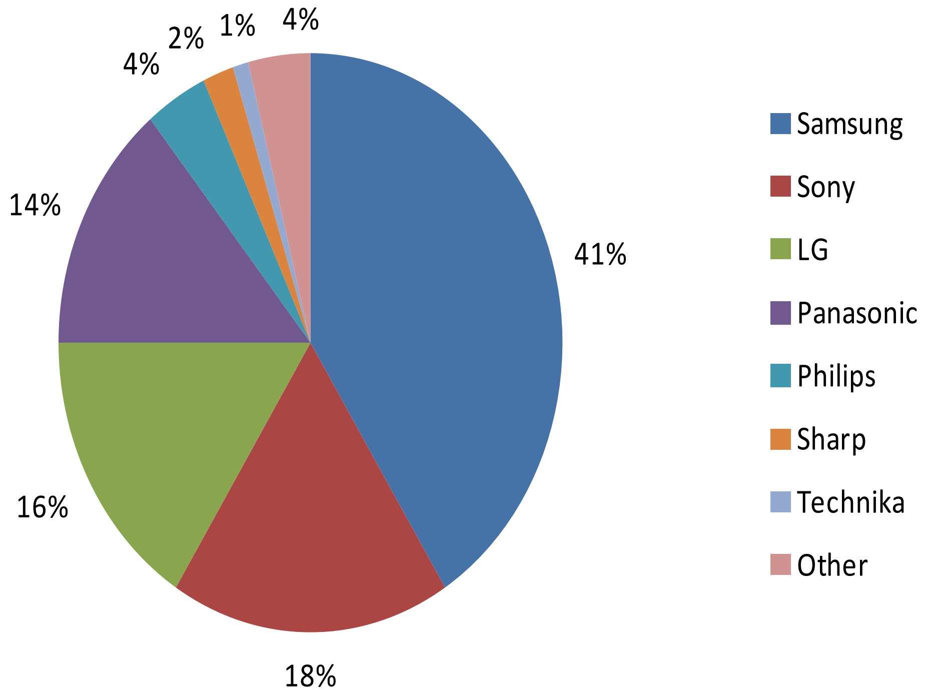
3. Business strategy: *multi-play and eco systems*

MARKET SHARES of CONNECTED TV PRODUCERS



Source: Ofcom, 2013

- Multi-play also by ISPs and OTT providers
- Eco systems around connected TV sets
- Multi-play and building eco-systems: locking-in clients or offering QoE?
  - Unbundling IPTV offers?
  - Enforcing standards for TV apps?

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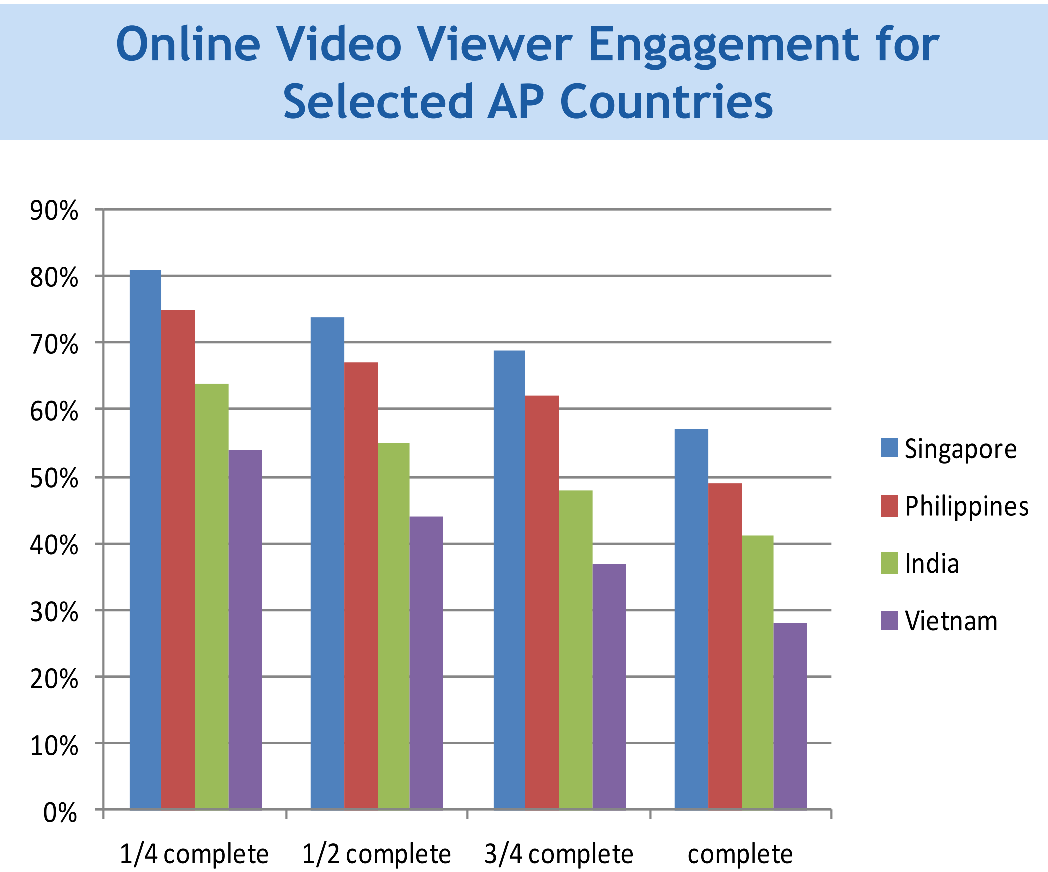
3. Business strategy: Multi-screen



Source OOYALA Video Index Q1 2013, adapted

- '2nd Screen' is a must have for broadcasters
- Audience engagement and advertising analytics to maximize the revenue opportunity
- 'Media meshing' can help ad exposure on first screen

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