Chairman’s State of the Nation

November 25
I. Worth noting in our surrounding TV market
II. How does HbbTV fit in this environment?
III. Some news about the HbbTV association
IV. Looking forward: opportunities & challenges
I. Worth noting in our surrounding TV market
The COVID boost to linear TV seems to be over

**Average daily television viewing per person (2015-2019, in hh:mm)**

- **2015:** 03:43
- **2016:** 03:42
- **2017:** 03:41
- **2018:** 03:38
- **2019:** 03:34

**Source:** European Audiovisual Observatory analysis of GLANCE audience data

**Durée d’écoute globale de la TV - Individus de 4 ans et plus - Premier Semestre**

- **FRANCE**
  - **Oct 2019:** 3h45
  - **Oct 2020:** 3h56 (+11 mins)
  - **Oct 2021:** 3h22 (-34 min)

**Source:** Médiamétrie
SVOD / OTT growth continues...

Streaming milestone: Global subscriptions passed 1 billion last year

Lin-Manuel Miranda and Phillipa Soo portray Alexander and Eliza Hamilton in “Hamilton” on Disney+, (Disney+)

BY RYAN FAUGHNDER | STAFF WRITER
MARCH 18, 2021 8 AM PT
Streaming overtakes live TV
For the first time since we launched the Media Consumption Report in 2019, the number of Americans streaming TV content (83%) has surpassed those watching live TV (81%)
and Netflix is now the Nº2 TV player in Europe
but OTT & SVOD growth is not without limit either

Netlix Is Losing U.S. Subscribers for the First Time in Eight Years

By Joseph Adalian @tvmojoe

After years of unchecked growth, Netflix saw

Disney+ U.S. Growth Slows Sharply in First Half of 2021, Internal Data Shows

By Wayne Ma and Jessica Toonkel | July 2, 2021 10:24 AM PDT
Photos: Disney CEO Bob Chapek. Photo by Bloomberg.

U.S. subscriber growth at Disney’s Disney+ streaming service slowed sharply in the past few months, according to internal data reviewed by The Information, with most of the growth in the
and broadcast TV is still key to reach audience

United Kingdom broadcasters lead Netflix
6 May 2021

Netflix only reveals selective viewing information, so most popular programmes compared to broadcast representative sample of 2,000 households in insight and suggests that the most popular programmes still dominated viewing in 2020.

Television viewing research compared with viewing technique for estimating Netflix viewership. Viewing data among a representative sample of United Kingdom.

Thinkbox, the marketing body for commercial television in the United Kingdom, has used this data, together with results, to produce top programmes in terms of household view one-off special programmes such as 'The Stranger'.

### United Kingdom programmes in 2020 by household views per episode

<table>
<thead>
<tr>
<th>Programme</th>
<th>Channel</th>
<th>m</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Great British Bake Off</td>
<td>C4</td>
<td>10.04</td>
</tr>
<tr>
<td>Strictly Come Dancing</td>
<td>BBC</td>
<td>9.53</td>
</tr>
<tr>
<td>Des</td>
<td>ITV</td>
<td>9.03</td>
</tr>
<tr>
<td>Britain's Got Talent</td>
<td>ITV</td>
<td>8.83</td>
</tr>
<tr>
<td>And and Dec's Saturday Night Takeaway</td>
<td>ITV</td>
<td>8.72</td>
</tr>
<tr>
<td>I'm a Celebrity...Get Me Out of Here!</td>
<td>ITV</td>
<td>8.60</td>
</tr>
<tr>
<td>The Masked Singer</td>
<td>ITV</td>
<td>8.44</td>
</tr>
<tr>
<td>Quiz</td>
<td>ITV</td>
<td>8.39</td>
</tr>
<tr>
<td>White House Farm</td>
<td>ITV</td>
<td>8.25</td>
</tr>
<tr>
<td>Van der Valk</td>
<td>ITV</td>
<td>7.99</td>
</tr>
<tr>
<td>The Salisbury Poisonings</td>
<td>BBC</td>
<td>7.95</td>
</tr>
<tr>
<td>Call the Midwife</td>
<td>BBC</td>
<td>7.52</td>
</tr>
<tr>
<td>The Stranger</td>
<td>Netflix</td>
<td>7.18</td>
</tr>
</tbody>
</table>
OTT and SVOD are not ignoring linear and Broadcast
Linear TV and OTT also engage convergence path at the regulatory level

Guidelines on the revised Audiovisual Media Services Directive – Questions and Answers

PSB listings under threat on Smart TVs

Streaming services to be brought under Ofcom regulation
as the world goes OTT, Telcos seem to lose their past interest in TV
Environment concerns will also be factored in the debate.

The carbon footprint of streaming video: fact-checking the headlines

40% of UK consumers would consider streaming at a lower quality to reduce emissions.

49% of UK SVoD subscribers would pay extra for green streaming alternatives – which could generate over £400 million annually.
II. How does HbbTV fit in this world?
all this happens on a smart TV

The TV is still the preferred device for content consumption:
new report

Today, the world seems filled with screens of high enough resolutions to consume the content they can show regardless of their size or portability. However, a new report shows that TVs have still managed to retain the greatest share (over 50%) of videos watched among respondents in the US. They spend an average of 20 hours per week using their TVs, compared to 4 hours watching phones.

Deirdre O Donnell, 01/27/2020

Notes: Non-addressable Smart TVs are older sets with unsupported apps or platforms

Source: Omdia
Smart TV looks like a fragmented world ....

... which HbbTV has the power and the ambition to unify
TV as a STB?

Sky launches the Sky Glass TV with a Sky Q box built in

The Sky Glass TV debuts alongside Sky TV over the internet with no need for a dish.

Amazon is now selling its own branded TV sets embedded with Alexa

Bloomberg | Quint
Comcast Aims to Become Streaming Gatekeeper With Smart TVs
Gerry Smith
Posted On 09:18 PM IST, 19 Oct 2021
Updated On 10:56 PM IST, 19 Oct 2021
HbbTV continues its successful installation in the TV ecosystem

**Digital TV**

**News**

**PRESS RELEASE**

**Freeview Play hits 10 million users**

26 OCTOBER 2021

Freeview has announced that its on demand platform Freeview Play is now used in over 10 million homes.* This follows over 14 million sales and cements its position as the fastest growing TV platform in the UK.
Pureplay SVOD platforms leverage HbbTV and DTT in a new way.

Salto to launch on DTT in platform “modernisation”

France streaming service Salto is to launch on the country’s DTT platform. It follows approval Wednesday for the France Télévisions-TF1-M6 joint venture that will use the HbbTV platform.
HbbTV emerges as a tool of choice to improve accessibility.
The proposed take-aways

1. classical linear TV is certainly not a dead model, but progressively has to enter into co-leadership
2. OTT continues its growth, playing at par with, or even exceeding traditional TV...though it may also approach some kind of limit
3. OTT and linear are not the opposite, and increasingly converge
4. Environmental concerns will also affect the shaping of the future balance
5. The world of connected TV & OTT is technically fragmented
6. … a fragmentation which HbbTV can resolve
7. HbbTV is the preferred technology of European broadcasters and platforms to navigate this transformation and re-invent themselves in an on demand this hybrid world
8. HbbTV helps to leverage DTT energy efficiency
9. And HbbTV continues its successful service & device installation in Europe, including with new models

HbbTV is the right technology for this co-leadership era
II. Some news about the HbbTV association
slightly more than 10 years old now...

June 2020 : Spec 1.1.1
May 2011 : legal incorporation
Moving –temporarily- to a digital-only organization

- last symposium = Athens, November 2019
- last meeting in person = SG February 2020 in Barcelona
- GA 2020 with election : first on line
- GA 2021 on line also

Hoping for the best now ....

- Symposium 2021 Paris
- SG in presence again January 2022
- GA in presence : May 3d 2022 (election)
Successful webinar series

https://www.hbbtv.org/hbbtv-webinar-series/

• 16 successful webinars between June 2020 and Oct 2021
• and more to come!
• 100 to 200 connected participants in live + several 100s of post-event video views (max 1,500)
• a massive repository of information on HbbTV specifications, assets and case studies
Specification continues to evolve and progress

**2.0.3 : published (Oct 2020)**

HbbTV Association publishes new release of the HbbTV specification

**“2.0.4” : Core Requirement agreed (Nov 2020)**

+ 2.0.5 add-on: soon finalized

**TA ADB update**

HbbTV releases Targeted Advertising solution for TV sets in set-top box markets

Geneva, October 27, 2020 – The HbbTV Association, a global initiative dedicated to providing open standards for the delivery of advanced interactive TV services through broadcast and broadband networks for connected TV sets and set-top boxes, has completed work on an update to its core specification (HbbTV 2.0.3).

Geneva, July 20, 2021 – The HbbTV Association, a global initiative dedicated to providing open standards for advanced interactive TV services through broadcast and broadband networks to connected TV sets and set-top boxes, today announced the release of its Targeted Advertising solution (TA ADB) specification.

HbbTV Association | Copyright © HbbTV
Test suite, the 2nd major output of HbbTV

- reaching 3,000 tests in the test suite
- all TA tests on board
- all Op App tests on board
- 91% approval rate for core spec
- integrating W3C & MSE web tests

Planning for Next 5 years planning (Summer 2021)

- 1.5 m€ investment in test suite
- reaching 3,500 tests
- target >90% approval rate for core and non core
Investing in interoperability

DASH-IF Conformance Tool

DASH-IF Conformance Tool is used to validate DASH content according to DASH-related media specifications. It aims to give information about the validity of the content against one or more developed media standards. Consequently it reports on unexpected behavior that can be observed in provided media services that are aimed to be working in alignment to these standards.

The development of the tool started in 2012 funded by continuously updated with newer versions of the above standards as required. Currently, the tool is aligned with specifications, namely MIPG-DASH ISO BMFF, DASH, HEVC and CTX. It also integrates file format, codecs, including AVI, HEVC, AAC, HE-AAC, AC-3, and HTML.

For each corresponding specification, the scope of the validation covers:

- Media Presentation Description (MPD) validation: where the MPD is checked if it is a well-formed XML file, appropriate according to DASH scheme and MPD-level signaling is done correctly.
- Segment validation: where the media content pointed to by the MPD is validated at container level.
- Cose validation: of the MPD-level elements and attributes as well as of the media content signaled at the same hierarchy.

The DASH-IF Conformance Tool is an open source software available on GitHub. A live demo of the tool is also provided [here](https://github.com).

soon updated!

on going update
Privacy Task Force: facilitating the compliance of HbbTV services and implementations with GDPR and e-privacy

Outline for an HbbTV Privacy Handbook

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twobirds.com

DRAFT OF THE LEGAL ANALYSIS

To: HbbTV Privacy Task Force
Licensing Working group

- organizing the dissemination of the HbbTV assets to the ecosystem
- Also handles related important standard agreements
- test suite
- Logo
- ..
Supporting the HbbTV developer community

Opening soon!

Request for Proposals
for implementing a
HbbTV Developer Portal

April 2021
IV. Looking ahead: opportunities and challenges
Opportunities

1. a rich specification, fit for the job: fully meets requirements of today’s demanding consumers and challenging market environment
2. an evolving specification, which adapts to key market evolutions
3. rich and up to date test suite; improving
4. supported by a proven organization in which all key players engage
5. growing appetite of the market as broadcasters actively transform their business models
6. growing recognition with substantial real life deployment and consumer usage
7. Money making business cases
Challenges

• Dealing with edge issues (eg; interoperability of recent DRM with HbbTV applications)
• Autonomizing HbbTV form Broadcast; prepare for an all IP world
• Avoiding national fragmentation; maintaining unity in the HbbTV space
• How can we reach universal and “guaranteed” compatibility?
• How can we make HbbTV more easy for manufacturers?
• HbbTV works mostly with voluntary work and limited budget; can it keep-up with industrialized alternative platforms?
  – specification support
  – ecosystem alignment and animation
  – industrialized conformance and certification (pan European?)

(Not necessarily to be all owned and resolved by HbbTV Association; holistic “ecosystemic”)
Concluding message

• In these first 10 years, HbbTV has built a great foundation to support European TV industry transformation
• Very useful, great relevance to the players

Let us continue this together!