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# TELEVISION CONNECTION

W3C Web and Digital Marketing Convergence Workshop  
Sep 18, 2015

# Liner TV viewing is still strong...

- Over 85% people watch liner TV in UK
- “Television must be the most powerful medium. Advertisers pay more for it than anything else, so it must be so.

*--Brian Cox (Sep. 2014)*

- 30Gbit/sec of traffic for 7 secons after special “reveal the secret” contents after trick show.

# The Problem is...

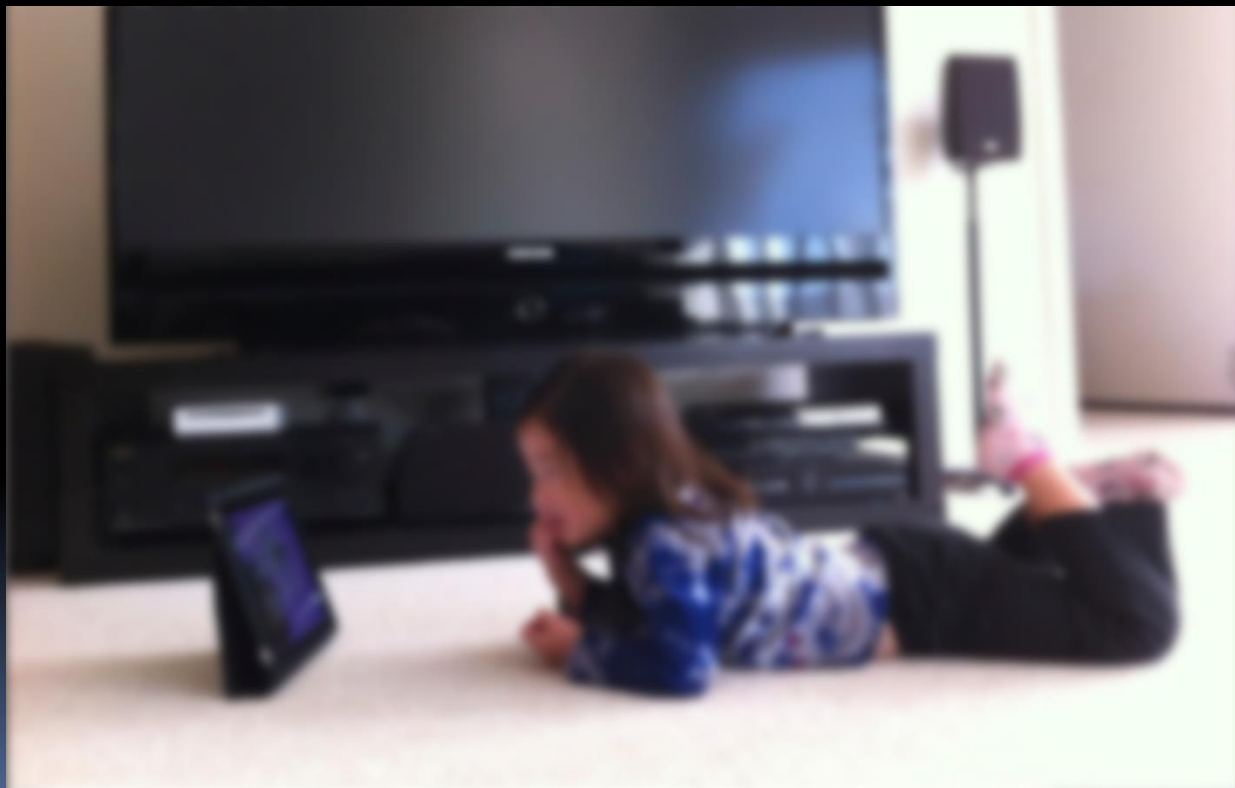


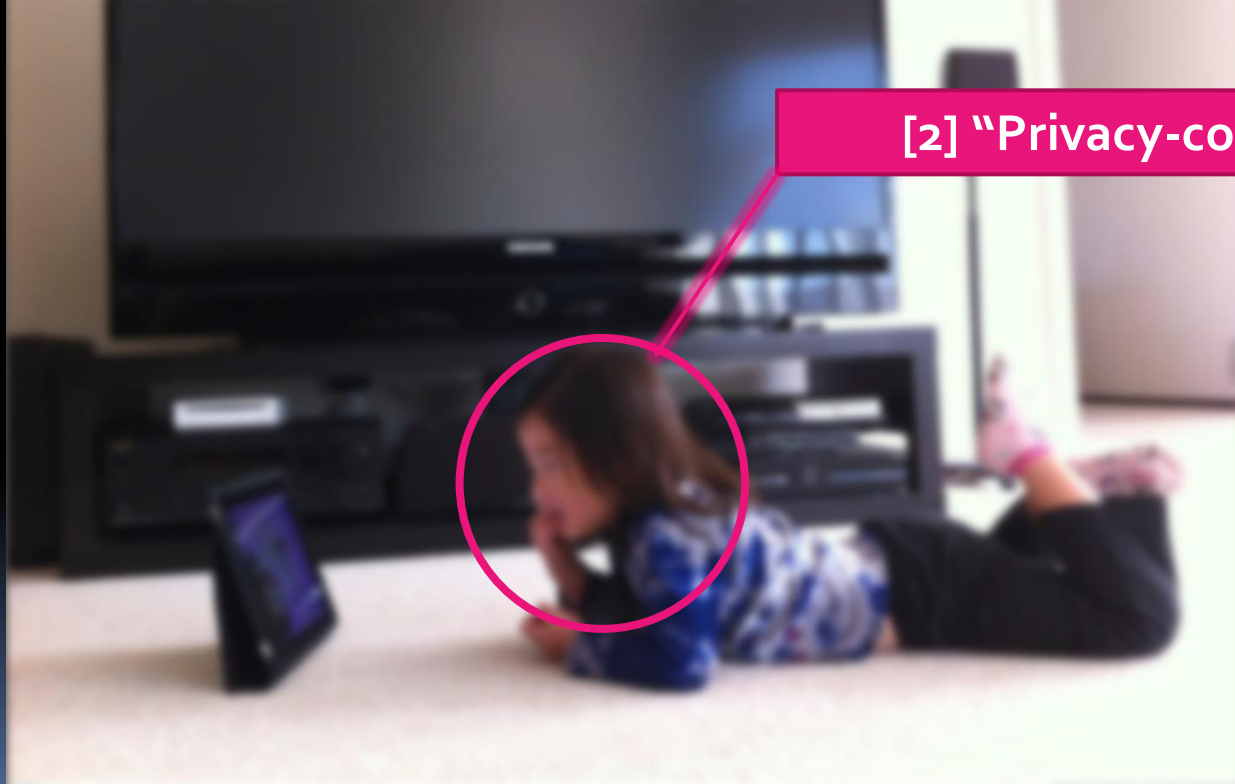
Photo: Stephane Le Dreau

# The Problem is...



[1] Have No SAME Tracking ID.

# The Problem is...



[2] "Privacy-conscious"

# “Connecetd” TV has...

- Unique Serial No.  
Can be obtained in HTTP transaction
- Unique MAC address  
only inside home network
- Unique CAS ID  
Using Data Broadcasting / Hybrid TV APIs

(TV sets should have “B-CAS” Conditional Access System in Japan.)

# Television Platforms

- Data Broadcasting (2001-)
  - XHTML + ECMAscript
  - Broadcasting Triggering
  - 1kiB of NVRAM data
  - >95% penetration
  - <20% connected
  - SSL3 / TSL1 only


# Television Platforms

- Hybrid TV Service (2012-)
  - HTML5 and CSS
  - (some) Broadcasting triggering
  - MPEG-DASH / HLS Streaming Videos
  - Ureg / Greg (16kiB each)
  - <10% penetration
  - >30% connected





# How to Aggrigate?

1. Interactive Content
    - need to log in using Remote
  2. QR-code link
    - need to use Apps on Mobile Phones
  3. Hybrid TV
    - need to discover devices
- 

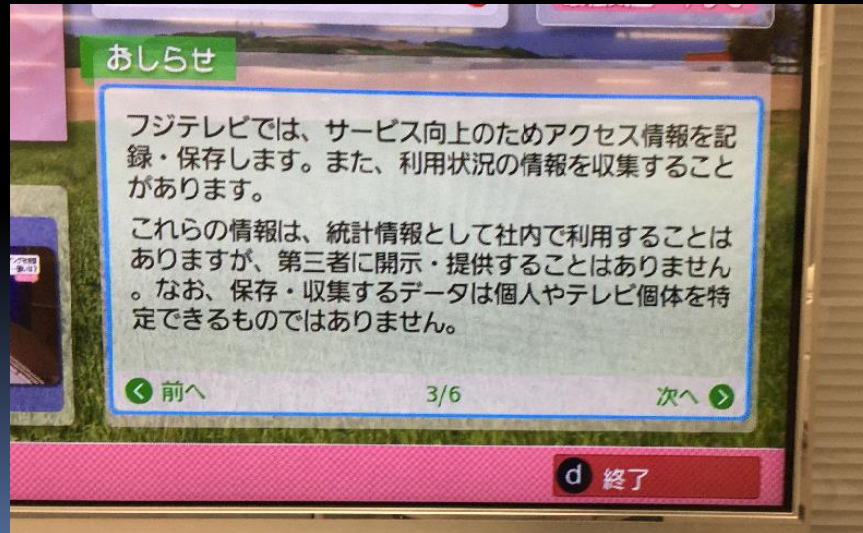
# Privacy matters...

- Traumatized issues...

The image shows a screenshot of a PCWorld article. The page header includes the PCWorld logo and navigation menus for News, Reviews, How-to, Video, Business, Laptops, Tablets, Phones, and Hardware. The article title is "Backlash occurs in Japan over sales of train e-ticket records". Below the title is a sub-header for "Suica" and a navigation bar with links like "Suicaとは", "利用可能エリア", "購入方法", "利用方法", and "各種手続き". The main content area features a large illustration of a penguin wearing a hat and holding a Suica card, with the text "日本の一枚。Suica". Below this are four small boxes with icons and text describing different Suica services: "モバイルSuica", "Suica インターネットサービス", "Suica + Suica", and "Suica 電子マネーライフ". The footer of the article includes the author's name "Jay Alabaster", the source "IDG News Service", and the date "Jul 5, 2013 7:39 AM".

# “intrusive” Agreement

- There were 7 pages of privacy agreement at first.  
→ Hard to reach to “Agree” button.



# “Privacy Agreement” survey

Refer the following link and agree with it.

<http://xxx.yyy.jp/zzz>

We collect following data and purpose..

1. xxxxxxxx
2. xxxxxxxx
3. xxxxxxxx

Privacy agreement and Terms & Condition

1. xxx xxx xxxxxxxx xxx
2. xx xxxxxxx xxx xxxxxx

<page 1/7>

# “Privacy Agreement” survey

Refer the following link and agree with it.

<http://xxx.yyy.jp/zzz>

22.7%

We collect following data and purpose..

1. xxxxxxxx
2. xxxxxxxx
3. xxxxxxxx

52.3%

Privacy agreement and Terms & Condition

1. xxx xxx xxxxxxxx xxx
  2. xx xxxxxxx xxx xxxxxx
- <page 1/7>

25.0%

N=533



# “Umbrella” Agreement

- Basic Same Agreement for All Broadcasters.
- Once a person agreed one station, applied for all stations.

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- Basic Same Agreement for All Broadcasters.
- Once a person agreed one station, applied for all stations.

YES

91.4%

NO

8.1%

N=533

# On the Other Side...

- Toshiba has launched TV-Point service.
- Joint Project with CCC, Largest Shopping Point Company in Japan.
- Gets “milage” points for a hour, and Logged.
- Non-Exclusive agreement for 3<sup>rd</sup> party use.



Photo: IT media



# Conclusion

- Hybrid TV will be usable.
- There are two major problems:
  - How to Track / Identify Audiences & Contents.
  - "Privacy-Conscious" matters.
- Survey for "Good" Privacy Agreement
- TV manufacturers also started their business.