Philips Interest in W3C Web and TV Workshop

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Participant's Interest

Philips NetTV was first introduced in 2009. It offers consumers an integrated experience combining the relaxed TV experience they're used to from TV with access to Internet delivered services from many content providers. NetTV was first introduced in high end TV sets but over time has been added to mid-range TV sets and to Blu-ray players. NetTV devices include a web browser supporting those elements from W3C specifications required by CE-HTML (CEA-2014). The integration between the browser and the TV environment is provided by elements from CE-HTML (for internet delivered video) and from the Open IPTV Forum (for integration with the broadcast, with downloaded content and with DRM). This selection is close to that required by HbbTV (ETSI TS 102 796) and is evolving to become fully compliant with that specification.

Point of View

Philips experience is that the use of web standards has been much more successful in enabling third party content and services for TV than any of the earlier TV-centric interactive technologies like MHEG-5 and MHP. There are however many continuing challenges.
1) Most critical is the need for mature and stable specifications. The retail business models used for TV sets are incompatible with regular and repeated software updates to track changing specifications. Integration and testing costs have to be funded as well as the cost of the updates themselves. A particular concern with the HTML 5 specification is that it's very hard to understand which parts of it are stable and which are not.
2) One key factor in achieving a stable specification is test suites, pages, streams and other test materials. Most relevant are aspects of HTML 5 which were not in HTML 4 or which have changed from HTML 4 and CSS 2D and 3D. Producing multiple sets of test materials for the same technical specification is a waste of time and money and will make things much harder for implementers where they need to pass all of them.
3) Another challenge is the diversity and duplication of technologies to solve the same problem. PCs can support this diversity of technologies since anyone (e.g. a service provider) can deploy native code to the device in order to implement the technology of their choice. This is typically not the case for TVs and similar devices which ideally support only one solution for the same problem.

Suggestions

Use of new web technologies in retail TV products requires pragmatic, stable, mature and realistic selections to be made from the W3C specifications. CEA-2014 achieves this for existing web technologies but for newer technologies the focus seems to be shifting elsewhere, e.g. to the Open IPTV Forum and activities building on it like HbbTV and the UK DTG CTV work. Some involvement of the W3C in this should be discussed. Developing and/or validating test materials for these newer technologies should be part of the same discussion.

APIs and other mechanisms for HTML and JavaScript to access TV features and functions is another area of interest. A lot of work has been done on this topic in the Open IPTV Forum, work which is being adopted in other places such as HbbTV (being deployed in Germany and expected to be deployed in France) and the UK DTG CTV specification. These APIs are part of a complete integrated system definition which includes codecs, system formats, metadata and DRM including the integration between these and HTML / JavaScript. It would be desirable if any W3C work on APIs to access TV features and their integration with codecs, system formats, metadata and DRM could build on these specifications (and test specifications / materials) rather than duplicating it.