A Statement of Interest for Web and TV Workshop--NTT on Service Discovery

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In the first workshop on Web on TV in Tokyo held on 2,3 September 2010, it was pointed out by some participants that TV is not only a display device for broadcasting, but also a general purpose display device for various entertainment and information. Pursuing this trend against the backdrop of the current digital media, it is clear that conventional concept of the Web, where the web content is displayed on a PC with the user interface such as a mouse, itself has to be redefined. The discussion of this new concept of the Web is pertinent especially given that recent popularity in tablet type of display devices and connected TV sets, where the conventional mouse mouse is no more the predominant means of interacting with the device. User's action can be transmitted in various means, such as by touch or by motion. Sometimes the user may not need to do anything to have interactivity -- sort of a "push-type" of interactivity can easily be envisaged.

This means that the new Web and TV, as a general information interface device, and the standard thereof, are relevant to various digital media and content delivery such as digital booklet, digital kiosk, and even digital signage and billboard, where information is "pushed" with additional interactivity provided by user's interaction.

The latter is especially relevant since it is not clear how the current W3C standards, such CSS and HTML5, can handle the cases where the user does not have an explicit pointing device, but nonetheless "interacts" with the display.

This is also relevant to the way the user discovers and acquires content and service—what is often called "service discovery". The web typically provides a "pull" way of service discovery, while broadcasting has typically been "push", from the user's perspective. This process of service discovery and content acquisition are especially important for the web and TV standard as a general information provider. People should be equipped with a seamless means of finding content and service on a TV device just as they do with the conventional TV broadcasting.

The mechanism of service discovery and content acquisition has long been discussed and has been standardized for IPTV services. ITU-T Recommendation H.770 provides the framework for service discovery for IPTV that is harmonized with other standards such as TV-Anytime, which is also encoded in ITU-T Rec.H.750. This standard ensures an open standard approach to service discovery over IP networks. The fact that the Web consists of millions, if not billions, of web-pages and content, makes it mandatory that the mechanism of service discovery be standardized, because it is unclear yet how the "search" capability will be provided on TV.
In this regard, the requirement such as the following should be taken into account:
The new Web and TV standard should provide a means to find services and content that is harmonized with a standard such as ITU-T Rec. H.770.

We hope that W3C, especially as a result of this workshop on Web and TV, will take this into account and provide relevant standards to meet the requirements of the new Web and TV.

[1] ITU-T Rec.H.770 "Mechanisms for service discovery and selection for IPTV services"
[2] ITU-T Rec. H.750 "High-level specification of metadata for IPTV services"
[3] TV-Anytime Forum http://www.tv-anytime.org (also at http://tech.ebu.ch/tvanytime)