Fraunhofer FOKUS Interest in W3C Web and TV Workshop

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Participant's interest

The FOKUS Competence Center Future Applications and Media (FAME) researches and develops in the fields of Rich Media and Convergence in NGN and non-NGN IPTV environments, Human-Centric Applications for multimodal Interaction and multi-device experience, Intelligence Functions as Recommendation Systems and Community Services as well as Service Integration and Collaboration for mobile middleware solutions and mashup services.

The main research focus is on the design and implementation of open service infrastructures. These include features as Human-Centric Applications, Service Personalization, Media Profiling, Telco Service Control and IPTV integration, Convergence, Electronic Content Guides as well as Rich Communication and interactive content approaches for IPTV.

Point of View – Parental Guidance handling

While Web and TV is mostly about bringing Web functionality to TV sets, there are also areas where the Web might profit from experiences in the TV domain.

One of these areas is the access to parental guidance setting data.

Many devices from the TV domain (TVs, Set-Top Boxes, DVD players, PVRs) allow some sort of setting of age or other restrictions. This is then used to restrict the content can be viewed on the device. In most cases, the setting is handled internally in the video player firmware, which determines the parental rating of the video content and then, depending on the device restriction settings, blocks the playing of the video on the device.

But in many cases, the information about the device setting would also be beneficial for Web applications running on a device. For example, if a device is restricted to 'no movies to be played with a rating above PG', applications running on the device should probably also avoid advertisements for alcoholic drinks. And, unless it is a brand strengthening campaign, adverts for a specific car model or special offer would presumably be wasted as well.

Web applications could also adapt to the device setting information, by either not running on devices where restrictions are set or by adapting the content appropriately.

Even considering just the viewing of video content, the current firmware based restriction system is based strongly on traditional distribution channels, like broadcast and DVDs. Most downloadable videos, for example, don't have age restriction information embedded in the video stream itself, so a video player might not be able to stop their playing, even if they are inappropriate for the age group. However, web sites often make their restrictions known in other ways, such as specific warning pages on YouTube, which could be used by Web applications to restrict access, if the current device setting could be determined.

Similarly, various types of 'nanny software' could filter access to specific web sites, if the parental restriction setting on a given device would be known.

And while this currently applies mainly to devices from the TV domain, where such settings are common, it will apply to other devices (smart phones) soon. For 'old fashioned' mobile phones a sub-market of 'kid phones' emerged that had a specifically reduced set of features, such as the ability to dial only certain fixed numbers, limiting calls (except to the parents) to only certain times or disable the ring tone during school hours. Current smart phones do not provide any real parental control functionality at the moment, but the need and market for phones with such a feature is clearly there. For example, the iPhone has parental control settings, but, at the moment, they can only be accessed by native apps, not from within a web browser. And just shutting down Safari seems a rather heavy handed way to regulate Internet access…

So it would be a good time to have some simple form of query to find out the current parental guidance setting on a device.

While CE-HTML (revision B) provides access to parental rating information using a "Parental Rating Manager", this is still strongly linked to video content and is only partly useable for other purposes. A similar situation arises with the OIPF approach.

The primary problem here is that most age restrictions for video content are based on national regulations. While many rating systems are primarily based on specific ages, many countries have also some sort of 'named' age restrictions like "TV-MA" , "PG" or "R". Additionally, there are sometimes different naming schemes for movies and TV broadcasts (so, in the US, "TV-MA" on TV is pretty close to "R" for movies, both meaning (essentially) "17 years or older").

Such a system works reasonably well within one domain and country. The ratings are given by official national bodies and video rendering devices in that country are required, either by law or industry guidelines, to follow these ratings. So a set-top box in Finland needs to know how to deal with a "K15" rating and does not need to be concerned with the fact that the same movie might have a "PS" rating in Ireland. And it is not unusual that a movie comes with a large set of ratings (according to IMDB, "Matrix" has such ratings as USA:R) / Malaysia:18SG / Philippines:PG-13 / Ireland:18 / Israel: PG / South Korea:12 / Spain:18 / Sweden:15 / Switzerland:12 / UK:15 and so on…) Which make CE-HTML and OIPF DAE complicated, since they need to deal with sets of ratings where video content is concerned. (And OIPF seems to be dodging the issue a little bit, since the only rating scheme they tend to refer to is the German FSK rating scheme, which just happens to have only minimum age numbers (0, 6, 12, 16, 18) and no "named'" restrictions.)

Suggestion

With Internet content, things could be getting more complicated, but might actually be simpler. Usually, there is no official rating agency for Internet content and any ratings are likely to be self-imposed or by some non-official interest group. Additionally, content is, by the nature of the World Wide Web, less restricted to specific geographic regions than movies in a cinema or TV broadcasts. And, since the topic is device settings for parental guidance, there is only the need to return the specific setting of the device, which is unlikely to be a set of data. (I am unlikely to have a setting that I want to allow "PG" movies in the US, "15" in the UK and "B" if I happen to be in Mexico. I'll probably just set the device to "13" and disallow any movie that has a minimum age higher than that. While it is probably not well defined what happens if I live in Germany and travel to Finland and watch a movie that is rated "16" in Germany, but "K13" in Finland – i.e. whether it uses the rating of the country the user is currently in or the rating for the country the user resides in, is an interesting

question, but probably not that relevant.) In most cases of Internet content, the rating is not going to be fine grained anyway; most of it will probably be along the lines "adult content – yes or no" and maybe a second line drawn between "suitable for everyone" and "not for small kids".

It would be convenient to have some sort of interface that allows the query of the parental rating settings on a device, returning just a number and potentially a number of letters for content description, as "D (suggestive dialogue), L (language), S (sexual content), V (violence) and F (fantasy violence)".

This would be reasonably easy to provide and would benefit Web applications on TV devices as well as Web application on other devices, most notably smart phones, improving and furthering convergence between these domains.

Acknowledgement