Research Proposal: Stakeholder Analysis on Encrypted Media Enhancement

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Introduction

The arrival of internet and digital technologies have made it is very easy and cheap to create perfect copies of digital media. This has produced serious difficulties to produce and distribute media using the pre internet era business models. To continue with their old ways media companies have tried to make it hard for people to make copies of digital media and working with hardware manufacturers and software platform providers they have various types of copy restrictions in hardware and software that is used to play the media. These technologies are largely known as Digital Rights Management or Digital Restriction Management or simply DRM.

DRMs have remained controversial since their inception, by media companies DRM is seen as something essential to preserve their business models and continue operating profitably whereas many digital rights activist see DRM as something fundamentally opposed to user's ability to own and control their devices.

Modern DRM usually works by storing and transmitting the media in encrypted formats which is usually decrypted only while the playing or rending of the media on end user's devices. On the world wide web the existing way to play and transmitted encrypted media content is through third party plugins like Adobe's Flash Player and Microsoft silverlight. There is an ongoing draft proposal by W3C to standardize this in HTML5 with a standard called Encrypted Media Enhancements(EME) [**?**]. EME too has remained controversial since 2013 when the work on the standard started.

Literature Review

DRM, its laws, economics and technology encompasses a lots of different areas and have been covered fairly well by the existing academic literature. Review of the literature points out

- The media companies have potential benefit from having strict DRM protection. [**?**]

- The providers of the software and hardware platform also benefit greatly from DRM because of lock-ins. [**?**]
- DRM technologies are usually not perfect people find a way around it. And the analogue hole aways exist.
- Prevalence of DRM fairly threatens many legitimate uses of media provided under the Copyright Law, thus also hampering amateur culture. [**?**]
- Some of the DRM technologies have proved to be security risks for end users. [**?**]
- DRM technology risks decreasing the accessibility of digital content. [**?**]
- DRM laws have been used beyond its intended aim of restricting copying of copyrighted work to limit interoperability and hamper free speech. [**?**]

Several blog posts both in support and opposition to EME exist.

- The arguments for EME points to the fact that DRM in web is not something new and they present EME as largely an effort to standardize it. [**?**]
- The argument against EME points to the harms of DRM and to the expected lack of interoperability between different implementations. [**?**]

A lot of primary data on EME is also available in the form of mailing discussion, discussions on the github issues tracker and pull requests where the draft is being formulated. None of the secondary literature looks at the process and historical context through which W3C has reached the current form of the draft. Also there is insufficient literature on DRM and EME with focus on Indian stakeholder.

The web being very pervasive, the implications of any technical standard proposed by W3C goes beyond technical details, the literature review revealed no literature focusing on the functioning of W3C as a standard setting organization.

Research Objective

Our research goals are two fold,

1. Do a stakeholder analysis of the proposed EME standard, understanding and explaining the various pros and cons of EME standard for various stakeholders involved, especially focusing on the Indian media industry and Indian public in general.
2. In the process of answering the first question analyze W3C as a standard setting organization and also find out what is the process through which an individual or organization can participate in W3C and can get their voices heard.

Methodology

The process will mainly include reading and analyzing the data available through W3C mailing list archives and the discussions on EME's github repository. To find out the affiliations of the participants we will have to look at their online profiles that includes personal websites and linked profiles.

To understand EME in Indian context we'll mainly use the secondary literature on the nature, extent of illegal copying and the recent empirical studies than have been done. If necessary we might also conduct interviews of the stakeholders involved.

Output

- A report/paper on the stakeholder analysis.
- A handbook on how to participate at W3C

Timeline

- 1 month

2 weeks to study the literature available, and another 2 weeks to analyze and compile the analysis in a report.

Budget

- A small amount of budget might be required for the procurement of books and research material.

References

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