EME pro and con

Please note: these opinions are presented for context; the claims have not been vetted.

Summary

Pro

- Without EME (or something like it) media companies will not use the Web for distribution.
- EME can avoid content distribution being restricted to locked-down devices.
- EME is an open standard that will reduce reliance on fragmented, unmaintainable proprietary solutions.
- By keeping CDM designs separate from the EME APIs, EME can avoid obsolescence.
- EME can enable content creators to make money from their work: DRM is not inherently evil.
- EME can allow media companies to try out the Web as a means of distribution, which they wouldn't touch otherwise.
- EME (or something like it) will happen whether or not it comes from the W3C, and a W3C standard is better than one or more de-facto standards.

Con

- Rights management doesn't belong in a W3C spec.
- EME is DRM by another name, and DRM is anathema to an open Web.

- EME is DRM and DRM has never worked.
- EME is designed for the benefit of corporations, not users (just as DVDs stop us skipping ads).
- EME will be even worse for accessibility than other forms of DRM.
- EME depends on CDMs, which essentially means a plugin architecture, and plugins are bad.
- EME is technically flawed as a content protection mechanism.
- Streaming will become the norm, and in that context any form of DRM will make media far less accessible – by hobbling user agents, operating systems and hardware.

Individual comments

Ian Hickson Google+ post

- 'Arguing that DRM doesn't work is, it turns out, missing the point. DRM is working *really well* in the video and book space.'
- 'The purpose of DRM is to give content providers leverage against creators of playback devices': licensed DVD players force you to sit through ads.
- 'Nobody is allowed to write software that does anything Columbia [for example] don't want you to do. '
- 'DRM's purpose is to give content providers control over software and hardware providers, and it is satisfying that purpose well.'

Ars Technica article

(in support, with lots of comments against):

- 'The only difference is whether [EME] happens under the W3C umbrella or merely as a de facto standard assembled by all the interested parties.'
- ' Deprived of the ability to use browser plugins, protected content distributors are not, in general, switching to unprotected media. Instead, they're switching away from the Web *entirely*.'
- 'With plugins and apps, there's no meaningful transition to a DRM-free world. There's no good way for distributors to test the waters and see if unprotected distribution is viable. With EME, there is.'

EFF, Peter Eckersley and Seth Schoen

- 'Shame on the W3C: today's standards decision paves the way for DRM in the fabric of the open web.'
- struggle between open and closed Web: 'a universal ecosystem that is based on open standards and fully implementable on equal terms by anyone, anywhere, without permission or negotiation' versus 'corporations that have tried to seize control of the Web with their own proprietary extensions. It has been represented by technologies like Adobe's Flash, Microsoft's Silverlight, and pushes by Apple, phone companies, and others toward highly restrictive new platforms'.
- 'The EME proposal ... explicitly abdicates responsibility on compatibility issues and lets web

sites require specific proprietary third-party software or even special hardware and particular operating systems (all referred to under the generic name "content decryption modules", or CDMs, and none of them specified by EME). ’
- ‘The DRM proposals at the W3C ... are an attempt to appease Hollywood, which has been angry about the Internet for almost as long as the Web has existed’
- ‘ HTML5 was supposed to be better than Flash, and excluding DRM is exactly what would make it better.’

EFF, Danny O'Brien
'We've argued before as to why EME and other protected media proposals are different from other standards . By approving this idea, the W3C has ceded control of the "user agent" (the term for a Web browser in W3C parlance) to a third-party, the content distributor. That breaks a—perhaps until now unspoken—assurance about who has the final say in your Web experience, and indeed who has ultimate control over your computing device.'

Defective By Design
(open letter to Tim Berners-Lee)
- EME is DRM
- ‘EME is sponsored by a handful of powerful companies who are W3C members, like Microsoft and Netflix. These companies have been promoting DRM both for their own reasons and as part of their close relationships to major media companies.’
- ’browser plug-ins designed to play media under the EME specification would all be proprietary, and widespread adoption of this plug-in system would pressure more and more Web users to sacrifice their computing freedom in order to view media’
- ‘this would move the Web away from universal compatibility and toward a more fractured state’
- ‘Applying such restrictions to streaming media may seem less harmful now, when "ownership" of most media is still possible by storing it on a personal hard drive. It is quite possible, however, that this option will disappear as companies create a system in which media is only available via streaming -- where they are able to control who views what when with which software. In that situation, the role of DRM will be even more critically important.’

Manu Sporny, HTML WG member
- ‘The Encrypted Media Extensions (DRM in HTML5) specification does not solve the problem the authors are attempting to solve, which is the protection of content from opportunistic or professional piracy.’
- ‘The EME specification does not specify a DRM scheme in the specification, rather it explains the architecture for a DRM plug-in mechanism. This will lead to plug-in proliferation on the Web. Plugins are something that are detrimental to inter-operability because it is inevitable that the DRM plugin vendors will not be able to support all platforms at all times. So, some people will be able to view content, others will not.’
- ‘plug-ins, on the whole, harm inter-operability in the long run and often create many security

vulnerabilities'
- case in point: on many platforms Silverlight is not supported (look at the System Requirements panel) despite massive corporate commitment
- Sporny previously worked on a DRM system with an EME-like architecture: 'it was a nightmare to make sure that the DRM modules to decrypt the information were rotated often enough to be effective while ensuring that they worked across all platforms'
- 'key retrieval is handled by JavaScript code, which means that anybody using a browser could copy the key data.'
- 'This "user is not an adversary" text can be found in the first question about use cases. It insinuates that people that listen to radio and watch movies online are potential adversaries. As a business owner, I think that's a terrible way to frame your customers. Thinking of the people that are using the technology that you're specifying as "adversaries" is also largely wrong. 99.999% of people using DRM-based systems to view content are doing it legally.'
- 'Here's the problem with EME – it's easy to defeat. In the very worst case, there exist piracy rigs that allow you to point an HD video camera at a HD television and record the video and audio without any sort of DRM. That's the DRM-free copy that will end up on Mega or the Pirate Bay. In practice, no DRM system has survived for more than a couple of years.'
- **Comment from Pratik Patel**: 'The current state of proprietary implementations by players such as Netflix makes it quite difficult for disabled people to access content via the web. The plugins, no matter how they're designed, make for a poor user experience.'
- **Comment from Sabahattin Gucukoglu**: 'To be honest, as a blind user who's constantly struggled with DRM in one form or another, I don't think there's any merit in it. Piracy is a social problem–it must be solved with social solutions. DRM is just a sure way to piss people off and estrange them from your business. I completely understand that people must be compensated for their work, but I really think the answer is watermarking and do-not-distribute warning signs at best and not content restrictions.'

Bruce Lawson blog post
- 'I don't have a moral problem with DRM. I just don't believe it works, so it's a waste of time. But encouraging plugins that will leave some law-abiding customers who want to pay for content unable to do so is the worst of all worlds.'

Guardian article, Harry Halpin
- explanation of W3C process
- 'There is a crisis of representation at the heart of all politics. There are, after all, 377 member organisations in the W3C, but around a billion people on the internet. If the web is truly a shared space for all humanity, everyone needs to be concerned that the technology of today does not prematurely optimise the web of tomorrow. So far, companies and nations have spoken on behalf of users. What if users and companies disagree? … The question is a classic one for not only the W3C, but also corporations, governments, or any organisation. How do the people participate?'

Cory Doctorow

'Here's the bad news: the World Wide Web Consortium is going ahead with its plan to add DRM to HTML5, setting the stage for browsers that are designed to disobey their owners and to keep secrets from them so they can't be forced to do as they're told. Here's the (much) worse news: the decision to go forward with the project of standardizing DRM for the Web came from Tim Berners-Lee himself, who seems to have bought into the lie that Hollywood will abandon the Web and move somewhere else (AOL?) if they don't get to redesign the open Internet to suit their latest profit-maximization scheme.'

W3C comments, Jeff Jaffe

- ‘ while we welcome and value input from all parties, we intend to continue to work on content protection, and publish this draft.’
- ‘Most people would agree that individuals and institutions in general should have the right to limit access to proprietary information, or charge for access to content they own.’
- ‘EME is an early draft not a final Recommendation’
- ‘All W3C specifications are developed under the W3C Patent Policy, with a goal of assuring that the final standards can be implemented on a Royalty-Free (RF) basis. The Working Group expects to see open source implementations of the EME specification.’
- ‘The EME specification defines Application Programming Interfaces (APIs) that would provide access to content decryption modules (CDMs), part of Digital Rights Management (DRM) systems. W3C is not standardizing CDM technology, but there is a concern that standardizing APIs could encourage CDM usage - which some view as being in opposition to open Web principles.’
- ‘Without content protection, owners of premium video content - driven by both their economic goals and their responsibilities to others - will simply deprive the Open Web of key content. Therefore, while the actual DRM schemes are clearly not open, the Open Web must accommodate them as best possible, as long as we don't cross the boundary of standards with patent encumbrances; or standards that cannot be implemented in open source.’
- ‘ A situation where premium content is relegated to applications inaccessible to the Open Web or completely locked down devices would be far worse for all.’

On Encrypted Video and the Open Web, Tim Berners-Lee

‘We’re together in wanting a robust, rich, open Web. We want a Web open to inventors and tinkerers, to media-makers and cultural explorers. We want a Web which is rich in content but also a two-way, read-write Web. We want a Web which is universal in that it can contain anything. As Michael Dertouzos, one-time head of the Lab for Computer Science here at MIT, used to say, an Information Marketplace, where people can buy, sell or freely exchange information. To be universal, the Web has got to be open to many different sorts of businesses and business models.

‘The HTML Design Principles give helpful guidance on the priority of constituencies: “In case of conflict, consider users over authors over implementers over specifiers over theoretical purity. In other words, costs or difficulties to the user should be given more weight than costs to authors; which in turn should be given more weight than costs to implementers; which should be given more weight than costs to authors of the spec itself, which should be given more weight than those proposing changes for theoretical reasons alone. Of course, it is preferred to make things better for multiple constituencies at once.”

‘So we put the user first, but different users have different preferences. Putting the user first doesn’t help us to satisfy users’ possibly incompatible wants: some Web users like to watch big-budget movies at home, some Web users like to experiment with code. The best solution will be one that satisfies all of them, and we’re still looking for that. If we can’t find that, we’re looking for the solutions that do least harm to these and other expressed wants from users, authors, implementers, and others in the ecosystem.

…

'Some arguments for inclusion take this form: if content protection of some kind has to be used for videos, it is better for it to be discussed in the open at W3C, better for everyone to use an interoperable open standard as much as possible, and better for it to be framed in a browser which can be open source, and available on a general purpose computer rather than a special purpose box. Those are key arguments for the decision that this topic is in scope.'

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Discussion from the Restricted Media Community Group.