

3rd DRM Conference Berlin

17:00-19:00

Subject: DRM between Consumer Expectations and Consumer Rights

Moderating Panelist:

Dr. Tomas Sander, Hewlett Packard Laboratories Princeton, USA (Mathematics)

Panelists:

Prof. Lee A. Bygrave, University of Oslo, Norway (Lawyer)

Fred von Lohmann, Electronic Frontier Foundation, USA, Senior Staff Attorney (Lawyer)

Prof. Deirdre Mulligan University of California at Berkeley, USA (Lawyer)

Jan-Ewout van der Putten European Bureau of Library, Information and Documentation Associations, The Netherlands, President (Lawyer)

Martin Springer, Digital Media Project contributor (Physics)

Dr. Thorsten Wichmann Berlecon Research GmbH, Germany (Economics)

[Slide 1] Rights, exceptions, usages... But no expectations, please!

Good afternoon, I am here in charge of Leonardo Chiariglione, the founder of the Digital Media Project. I would like to send you Leonardo's apologies that he is not able to attend the conference. Right now he is probably on a plane from a technical meeting of the DMP in Las Vegas.

[Slide 2] The Digital Media Project

About a year ago I discovered the Digital Media Manifesto on Leonardo's website. Being convinced that it's premises are correct, I started discussing on Leonardo's public DMP mailing list and by and by became a contributor to the Digital Media Project.

A premise of the Manifesto is that Digital Technologies have originated huge and profitable industries.

But although they made possible new User experiences it is a fact that most business models for Digital Media have been either unprofitable or are being challenged in the courts.

DMP believes that Digital Media are an asset of mankind and that everybody can benefit from Digital Media

if the Protocols and Interfaces between Devices are standardized.

As a consequence, DMP develops Technical Specifications for Devices.

[Slide 3] Vision is good but we need a strategy

In the terminology of the DMP, persons or legal entities are considered Value-Chain Users who use Devices to execute Functions on Governed Content.

The starting point of the DMP Strategy was an analysis of the relationships between existing Users.

DMP identified about 30 different Value-Chain Users, for example Authors, Collective Management Societies, Publishers, Producers, Performers, Device Manufacturers, and so on... last but not least: End-users are also Value-Chain Users)

It is not very useful to standardize the Functions and relationships of existing Users, because we don't know if these Value-Chains will still exist tomorrow.

But it is interesting to see that the Functions performed by many of the existing Users are very similar and can be disassembled into a set of existing Primitive Functions.

These Primitive Functions can be combined to describe the relationships of today's Users. But existing and possibly new Primitive Functions could also be used to describe new relationships between future Value-Chain Users.

[Slide 4] Process to identify Primitive Functions

The people who attended the second General Assembly of the DMP were asked to provide a short description of the role or their employers in the Value-chain. By this process quite a number of Primitive Functions were identified.

This document was published on the DMP website together with a request to comment and describe further Requirements for the implementation of these Functions.

DMP received valuable input from Public service broadcasters, Collective management societies, Sheet music publishers, people with print disabilities, Network providers, CE manufacturers and also private persons.

[Slide 5] The DMP Interoperable DRM Platform (IDP)

The Technical Specification of the Interoperable DRM Platform is developed in several steps corresponding with Use Cases,

The specification of technologies for portable Audio and Video Devices (IDP-1) will be approved in April,
the specification for Home devices will be approved in October.
(of course home devices will reuse technologies specified for mobile devices)

[Slide 6] The IDP is a toolkit specification +use cases

The Technical Specifications of the Interoperable DRM Platform can be considered a Tool-Kit.

A Tool is an elementary Technology to implement a Primitive Function. The Tool-Kit contains normative Specifications of the Tools

Use Cases (e.g. the usages of a Portable Audio-Visual Device) describe how these Tools can be assembled to implement interoperable Devices or Services

[Slide 7] Benefits of DMP specifications

The benefit of the Tool-Kit approach is that the the same Tools can be used for implementing different Use Cases.

With the IDP it will be possible to Use different Services by competing providers on the same Device.

One User may require strong encryption for protecting his content, another User may deliver unencrypted content to a Device, protected by a Creative Commons License.

By assembling different Tools a variety of business models can be established on the Interoperable DRM Platform.

A User who offers a new Service may require a new Tool to define and implement the business-case in a Value-chain.

If the existing Tools are not good enough, Users can build their own Tools (the specifications of the IDP will be an Open Standard)

[Slide 8] Interoperability is important but more is needed

Okay, interoperability is nice and we all are happy if we need not buy two different Devices for recording music and television.

But what if today's Service providers use DRM to take away the fundamental freedoms of End-users so that we cannot record anything with our Devices?

It is well possible that DRM reduces the Traditional Rights and Usages enjoyed by Media Users in the analogue world (thinking of the Broadcast Flag in the US, it is reality). There must be a remedy for this imbalance, otherwise Users (in particular End-users) will reject DRM

[Slide 9] Disclaimer

DMP does not claim that established Traditional Rights and Usages imply that Users have a Right to Use Digital Media in a certain way

But DMP claims that Users probably want to be able to do the same things with Digital Media as they used to be able to do with analogue media

The Interoperable DRM Platform may offer opportunities for new business models that are attractive to all Users.

[Slide 10] Overcoming the TRU obstacle

DMP has collected and analysed altogether 88 Traditional Rights and Usages of media Users.

DMP has discussed scenarios how these Traditional Rights and Usages could be influenced by DRM. This document will be published as a Call for Contributions end of January.

The purpose of the "TRU Recommended Actions" is a neutral description of the potential problems in the use of an Interoperable DRM Platform.

The Recommended Actions will be presented to policy makers, legislators, and other authorities in October.

[Slide 11] Some TRUs

Here are some examples of TRUs.

The position of the DMP is that it is the task of legislators to decide which Traditional Rights and Usages will be supported mandatorily by the Interoperable DRM Platform and which will be left to private negotiations between Users.

[Slide 12] Read more

Thank you very much for your attention.

--

[Expectations]

"users expect to be able to do the same things with digital music (or more accurately 'online' or 'network' music since CDs are also digital) as they used to be able to do with analogue music."

"In the absence of widespread standardisation, consumers may resist being tied into selecting from the minority of devices that support the right kind of authentication. It is that kind of inconvenience that drives them to the kind of work-arounds that get labelled as 'piracy'.

http://alchemi.co.uk/archives/hum/does_content_pr.html

Conclusion:

- any DRM that undermines usability will fail.
- interoperability is essential for DRM

[Toolkit]

“because value chains are so diverse and business player attitudes are countless, it is impossible to design a “one size fits all” monolithic DRM solution. So what DMP is doing is to develop an Interoperable DRM Platform specification that is a toolkit. Those who want a lightweight DRM solution can find it in the toolkit, those who need a heavyweight solution can find it there as well.”

Leonardo Indicare Interview

http://indicare.berlecon.de/tiki-read_article.php?articleId=58

[Openness of the Standard]

Technical Specifications of the elementary technologies (Tools) must be open

- implemented under RAND conditions
- reference implementation
- software patents?

e.g. Open Content Use Case (dmp0287)

- 1.DMP Content Format (the structure into which content data are arranged)
- 2.Content Identification
- 3.Rights Expression
- 4.License identification
- 5.License acquisition protocol

Provide Reference Software

- independent checking of the standard
- conformance testing
- promote adoption of the standard (e.g. MP3)

<http://www.dmpf.org/open/dmp0287.doc>

[Incompatibility]

“To make DRM work, you have to ensure that not just anybody can build a music player -- otherwise people will build players that don't obey the DRM restrictions you want to connect to the content. DRM, in other words, strives to create incompatibility between the approved devices and uses, and the unapproved ones. Incompatibility isn't an unfortunate side-effect of deficient DRM systems -- it's the goal of DRM.

A perfectly compatible, perfectly transparent DRM system is a logical impossibility.”

Ed Felten on DMP

[Honest people, trust]

“I don't see anything contradictory about a DRM-supporting music format being “completely transparent and universal”. Universal just means that everyone supports it. No problem there.

How about transparent? Transparent means you don't notice it as long as you're using the music legitimately. What is a legitimate use? It's based on what you agreed to in exchange for being granted access to the music.

A DRM system can be perfectly transparent as long as you are honest about agreeing to any conditions on the use of the material. If you try to violate your agreement and go back on your word, the DRM may make itself known.

Chiariglione is talking to the honest people of the world. Criminals, liars and thieves are not his audience. I was proud of him for forthrightly declaring that the "culture of theft" in the online world is "detestable". Not many people dare to use such strong words.

For those of us who are not interested in cheating other people out of the value they deserve by making promises we don't intend to keep, Chiariglione's vision of a transparent and universal music format is attractive and, hopefully, achievable. It is not contradictory in any way."

<http://www.freedom-to-tinker.com/archives/000578.html#comments>

Conclusion: the degree of the "measures against copyright infringement" need to be trusted by all value-chain players involved (-> Toolkit)

[Convenience]

"As Steve suggested, the battle will be between the convenience of DRM formats and the convenience of non-DRM formats. Non-DRM formats have a head start precisely because they're unencumbered. But that's only a head start, not a guaranteed first place. The DRM formats can make up that lead in ease of downloading (e.g. iTunes AAC versus P2P MP3), OS integration and defaults (e.g. WMA vs. MP3), and network effects of quantity and player support (e.g. MP3 vs. Vorbis).

So the outcome is partly dependent on how convenient software engineers make it for non-engineers to use non-DRM formats. Because even if all the retired software engineers in all the world are cracking the DRM, the network effects will still be reducing their choice of hardware."

<http://www.freedom-to-tinker.com/archives/000578.html#comments>

[Thoughts on a value-centered DRM]

Based on a thread [subject: Automating policy enforcement?] between Spencer Cheng, Philip Merrill and Martin Springer on the public DMP Reflector

Context:

In his paper on the "Value-centered design of Digital Rights Management" [1] Stefan Bechthold coined the term "Value-centered DRM" and anticipated that the DMP "could develop into an important platform upon which value-centered DRM systems are designed". A value-centered DRM respects the interests of creators, rights holders, end-users and various other value-chain players.

Objective:

1. A DRM implementation cannot create a Work
2. A DRM implementation cannot detect attributable properties of a Work
3. A DRM implementation can assist Users in detecting properties of a Work but only Users can attribute a Work to a Creator
4. Like creation, attribution of a Work happens in the mind of a User (and is therefore subjective)

5. Copyright is based on the concept of Works.
6. A DRM implementation can assist Users in enforcing Copyright but Copyright can only be enforced by Users (Lawyers)
7. Users can specify an unambiguous usage policy (Licenses)
8. Users need to trust each other that Content is used in accordance with the usage policy
9. A DRM implementation can assist Users in enforcing usage policy but usage policy can only be enforced by Users (Lawyers)
10. Users can specify a usage policy (Licenses) which is not in accordance with Copyright
11. A DRM implementation can be used to enforce a usage policy which is not in accordance with Copyright
12. Copyright is "value-centered" insofar as it creates a balance between the interests of all users of a Work (including the Right-Holders and the End-users)
13. A value-centered DRM implementation assists **all** Users in enforcing Copyright

IDP Requirements:

14. A value-centered DRM implementation cannot accept a usage policy (Licenses) that "overrides" Copyright
15. A value-centered DRM implementation cannot accept a usage policy that "overrides" jurisdiction
16. If most users will not accept the existing jurisdictions, they must be able to elect Public Authorities which will improve the jurisdictions.
17. A value-centered DRM implementation must be trusted by **all** Users
18. A value-centered DRM implementation must be controlled and maintained by Public Authorities
19. Public Authorities must own the Copyright of the code of a value-centered DRM implementation
20. Public Authorities can exclude from Copyright the language to express jurisdiction and usage policy in a value-centered DRM implementation (Rights-Expression Language)