privatkopie.net, Berlin
and
Bits of Freedom, Amsterdam

Berlin, September 20, 2004

To the
DG Information Society of the European Commission
at
INFSO-G1@cec.eu.int

Putting users at the centre achieving an 'information society for all'

Comments in response to the
Informal Consultation of the Final Report of the High Level Group on DRM.[1]
(extended deadline for submission 20th September 2004)

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[1] http://europa.eu.int/information_society/eeurope/2005/all_about/digital_rights_man/doc/040709_hlg_drm_2nd_meeting_final_report.pdf

Privatkopie.net is a civil society initiative working to protect information user rights like the one to make private copies. Its petition urging the German government to preserve the private copying exception in the digital age has so far received nearly 50.000 signatures.
http://privatkopie.net

Bits of Freedom is a privacy and civil liberties organisation based in Amsterdam, The Netherlands. Major topics of concern to Bits of Freedom are copyright, the balance between law enforcement and privacy, freedom of speech and spam.
http://www.bof.nl

We agree with the Commission on the need for appropriate conditions for digital rights, which meet the interests of all stakeholders, including those of private citizens. We do not agree that a High Level Group consisting of companies and industry groups with only the European Consumers' Union (BEUC) as representative of users invited – which remarkably was not able to support the resulting report – is suitable to reach this goal.[2]

- We urge the commission to create conditions under which privacy of information users and their „right to read anonymously" are guaranteed.
- We urge the Commission to approach the open architectures of PC and Internet as a valuable asset and a cornucopia of innovation and opportunities that needs to be protected and nurtured.
- We urge the Commission to reverse the process of privatising copyright law and take serious its task of safeguarding public interests in the emerging digital environment.
- We fully support BEUC's call for enforcable consumer rights, including the private copying exception, which cannot be overridden by contract terms or deployment of DRMs. We urge the Commission to actively promote the research and development of alternative compensation systems.
- We urge the Commission to aggressively strike against anti-competitive behaviour by dominant players using DRM as an opportunity to capture even more of the market.
- We urge the Commission to reconsider its support for the single-path solution of DRM of which there is strong evidence that it is a dead-end street.
- We urge the Commission to convene a similar High Level Group or other suitable forum with stakeholders from civil society, science and business on the dangers of DRMs and on alternative systems that ensure compensation of rightsholders without control over users.

[2] The HLG consisted of 16 members. Aside from one collecting society, and one public broadcaster, they were from content, network, device and IT industries. For the full list, see http://europa.eu.int/information_society/eeurope/2005/all_about/digital_rights_man/index_en.htm

User Acceptance and Privacy

One of the declared goals of the High Level Group (HLG) was to address „[a]cceptance and trust by users with particular emphasis on security and privacy." It is unclear whether the word „users" here refers to commercial or to private users of information products.[3] In the former case it would aim at a wider adoption of DRM among rightsholders. Other occurances of „security" throughout the HLG Report make it clear that it refers to the security of digital merchandize and the technologies intended to protect it, not to the security of the private user for whose systems DRM in fact creates new vulnerabilites to attacks.[4]

If the latter meaning were intended, we fear that it implies creating acceptance rather than creating a technological framework that is acceptable and trustworthy for users. „User convenience" is mentioned as the only other factor conducive to mass market acceptance, aside from privacy. The impression is confirmed by the fact that there is only one further reference in the Report to privacy and data protection: „EU data protection policy also establishes the parameters in which DRMS operate."

This has become an established pattern of argumentation. While lawmakers, like the German government, readily acknowledge that DRMs structurally create massive privacy problems,[5] they put them aside as irrelevant to copyright law making because they supposedly are taken care of already by privacy laws. We would be happy to agree, were it not for two reasons. Legally, privacy enforcement agencies have not been given the means to investigate DRMs because the absolute prohibition on circumvention of DRMs[6] prevents them from doing so. Practically, they lack the staff and capacity to investigate the constant stream of new technologies being introduced to the market.

Privacy is too important a value to be put at risk. Architectural and procedural safeguards for privacy are a *sine qua non* for user acceptance of any copy and rights control technology. Instead of an impotent system of ex-post investigations after DRMs have been deployed and problems have become evident, what is needed is to enable privacy protection agencies to verify compliance of DRMs with data protection laws *before* they are introduced into the market. This needs requirements of full disclosure of technolgies to these agencies that allows them to efficiently fulfill their task.

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[3] In order to avoid this confusion, throughout this text „users" is used to mean private users only.

[4] DRM systems in the online realm are similar to „Trojan horses." They regularily contain „spyware," i.e. applications that „phone home" to describe how they are being used. DRMs, as the Report acknowledges, structurally require renewal and revocation of its installed hard- and software components, including elements of the operating system of a given device. Even if they function as intended by its operators and as consented to by the user, having an arbitrary company update an operating system necessarily compromises the user's security policy. Even more so, DRM functionality, especially the mechanisms for renewal and revocation, open new inroads for abuse by third party attackers.

[5] For example, Ministerialdirigent of the Ministry of Justice Elmar Hucko at a public discussion in Halle on 9 September 2004.

[6] In Directive 2001/29/EC, Art. 6

- We urge the commission to create conditions under which privacy of information users and their „right to read anonymously“[7] are guaranteed.

"Flexibility & Choice"

The industries‘ Report is itself an exercise in creating „user acceptance.“ It does not start out with the usual lamento about digital copying and downloading ruining the entertainment industry.[8] Instead, it positively highlights the "enabling function" that it claims to be frequently missing from definitions and descriptions of DRM.

The PC and the Internet have often been characterized by its enabling funtions. The universal symbol processing machine and the universal communications medium have enabled citizens to become authors, editors, producers and distributors of informational goods to a degree that was unthinkable before.[9] More so, they have brought forth a wealth of commons-based peer production,[10] most dramatically demonstrated by free software like GNU/Linux and free content like Wikipedia.[11]

But it is not the enablement of users and not even that of authors that the Report is concerned with, but rather that of the exploiters of copyrighted works: „Content providers want to reach their customers in new ways...“ This is followed by the two main selling points for DRM: „flexibility & choice“ and „wider access.“

Users traditionally had flexibility with media. We could read, listen to or watch them wherever and as often as we wanted, quote from them, access them in a library, lend them to a friend, make our own compilations, and sell them to a second-hand store. And there was choice, within the limitations of printing capacities, store space, air time and other factors. Removing these limitations, PC and Internet greatly improved flexibility and choice for users.

DRM is intended to restrict both of them. With respect to information products, it allows no flexibility beyond that offered by the exploiters. Contrary to the Report‘s repeated statement that „record producers [...] have digitised and licensed most or all of their catalogues,“ the range of works available in music-on-demand systems is minimal compared

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[7] Cohen, Julie E., "A Right to Read Anonymously: A Closer Look at "Copyright Management" In Cyberspace" . 28 Conn. L. Rev 981 (1996) http://ssrn.com/abstract=17990

[8] It is not until the second section that the Report calls DRMs „key to the fight against piracy.“

[9] The open architecture of the PC is the basis for a wealth of innovation in soft- and hardware. Remarkably, the Report positions it in the exact opposite light by saying: „Much modern equipment – such as the PC – could not exist without extensive utilisation of proprietary standards.“

[10] Benkler, Yochai, Coase's Penguin, or Linux and the Nature of the Firm, The Yale Law Journal, Vol. 112, 2002, http://www.benkler.org/CoasesPenguin.html

[11] The free, collaborative online-encyclopedia, http://wikipedia.org

to record companies‘ catalogues.[12] Additionally, such services clearly do not offer users a choice of platform, as the rising number of GNU/Linux users are excluded from most DRM-controlled content. Even more alarmingly, in implementing DRMs, the operating systems and even the hardware of PCs are being modified. This greatly reduces flexibility and choice for users, no matter whether they purchase entertainment products or not. The fundamental infrastructure of the information society must not be modified in the interest of one particular industry and to the disadvantage of all other stakeholders, especially its citizens.

- We urge the Commission to approach the open architectures of PC and Internet as a valuable asset and a cornucopia of innovation and opportunities that needs to be protected and nurtured.

"Wider Access"

Claiming that access restrictions achieve wider access is another example of Orwellian Newspeak, a phrase meaning the exact opposite of what it says.

„Content owners envisage a future in which consumers can access content wherever and whenever they choose...“ Information users already live in a present in which they can access content wherever and whenever they choose. It is enabled by PCs and the Internet. And the content accessible is a huge body of information created by science, a manyfold of communities, by public bodies, private companies, and millions of citizens. Access to the information is authorized by free access and use license and by it being in the public domain. The fact that also copyright protected works are illegitimately but readily available, proves that access is not a problem. What is lacking is a mechanism for compensation.

To be fair, the sentence continues „... within a marketplace that also provides for commercial competition and payment.“ We do agree on the need for competition and for payments to creatives and to intermediaries who provide valuable services to creatives and to users. We strongly object that DRM is a way to achive these goals, and that the interests of content owners can justify abolishing flexibility, choice, and the potential for innovation and collaboration for everyone else.

- We urge the Commission to protect the open digital information environment and its enabling capabilites for flexibility, choice and access, and look into alternative ways of compensation and new business models based upon them.

[12] Apple‘s iTunes Music Store claiming to offer 700,000 titles would have by far the largest catalogue of all online music services. Independent tests give rise to doubts about that number (PC Magazin 9/2004, p. 12), but even if it were correct, it would only be a tiny fraction of the music owned by record companies.

Balance

There are no rights without obligations. There are no intellectual property rights without limitations and exceptions. „Balance“ in copyright law refers to permissions granted to certain societal groups like education, science and the press, and to every citizen in the form of private copying privileges, as counterweights to property.

Both of the aforementioned selling-points for DRM contain references to a balance: „DRM provides a balance, by allowing different services at different price-points, while preventing unintended substitution among the service/price-point options.“ And: „DRM should provide a balance, allowing content to be accessed on devices the consumer wants to use...“

The Report thus reduces „balance“ to consumer choice among „different services at different price-points“ and to consumer choice of devices on which to access content. While the latter would be an improvement on the current situation where DRM is used to lock out users of all platforms other than those for which the technology was developed, this interpretation can only be called a sad caricature of what copyright law means by „balance.“

The balancing of interests of rightsholders and of the public is so fundamental to copyright law that it cannot be abolished. To be sure, the balance has to be adjusted in accordance with changing media technology. For example, public libraries play a crucial role in access to information, education, science and long-term preservation of information. Lawmaking should enable them to fulfill these tasks also in the digital age.[13] In contrast, the European Copyright Directive has given global special protection to any technological measure that claims to protect copyright, and granted exploiters total, unrestricted control over copyrighted works in the online realm with the help of technology and contracts. It thereby, in effect, abolished the publicly negotiated balance of copyright law in favor of a regime of purely private ordering.

Achiving and ensuring balance is the task of public policy. Instead the industry groups who wrote the Report claim that „[i]t is up to the rights holders to build balanced business practices with their customers.“ The fox is demanding that it be set to keep the gees.

- We urge the Commission to reverse the process of privatising copyright law and take serious its task of safeguarding public interests in the emerging digital environment.

[13] Directive 2001/29/EC has failed at doing so, by restriciting permission for libraries in Europe to communicate works or make them available to their users to „dedicated terminals on the premises of establishments referred to in paragraph 2(c) of works and other subject-matter not subject to purchase or licensing terms which are contained in their collections“ (Art. 5(3)n).

Private Copying Exception and Alternative Compensation Systems

The Report points to the origin of the privat copying exception in the 1960s in Germany. Only that it misrepresents its purpose. Saying that it „emerged in view of the de facto non-enforceability of the reproduction right" leaves out the central argument of the Supreme Court decision that led to the introduction of the exception: that enforcement of copyrights in private homes would conflict with the unviolability of the private sphere.[14] This argument still holds, as DRMs structurally violate the private sphere.[15]

More recently, the German Supreme Court ruled that the exception serves the constitutionally founded interest of the general public in „uncomplicated access" to information in he context of the development of the modern industrial society.[16] As leading German copyright law scholar Prof. Thomas Dreier points out, therefore, the private copying exception remains justified also in a digital and networked environment and in light of the possiblity of technological protection measures.[17]

The Report does not bother itself with these or, in fact, any arguments with respect to the purpose of the private copying exception. It simply posits: „A priority of all stake-holders is the effective deployment and legal protection of DRMs..." We would like to emphasise again that the stakeholders in question expressly exclude the single representative of consumers invited to the HLG, and they also exclude a great number of other stakeholders whose priority it is to prevent DRM, among them many leading media[18] and especially cryptology experts.[19] Again without a single argument, the Report continues: „The way

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[14] BGH, 29 May 1964 - Aktz. : Ib ZR 4/63 (*Personalausweise*), in *GRUR* 02/1965, p. 104

[15] The Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee on the Management of Copyright and Related Rights in the Internal Market (COM(2004) 261) recognizes this fact by pointing out that "DRM systems can be used ... to trace behaviour" (p. 10), http://europa.eu.int/comm/internal_market/copyright/management/management_en.htm

[16] It based its decision on art. 14(2) of the German Constitution („Gemeinwohlbindung des Eigentums"). BGH GRUR 1997, 459, 463 – CB-Infobank I.

[17] Dreier/Schulz, Urheberrecht. Kommentar, Beck, München 2004, § 53, 1

[18] Griffin, Jim (Founder and CEO Cherry Lane Digital & OneHouse LLC, Los Angeles), At Impasse: Technology, Popular Demand, and Today's Copyright Regime, White paper for the Senate Judicary Committee, April 2001, http://www.62chevy.com/at_impasse.htm; Steve Gordon (entertainment attorney and consultant based in New York City), How Compulsory License For Internet Might Help Music Industry Woes, Entertainment Law & Finance, May 2003, http://stevegordonlaw.com/compulsory_license.html; Lincoff, Bennett, A Full, Fair And Feasible Solution To The Dilemma of Online Music Licensing, New York, New York, November 22, 2002, http://www.quicktopic.com/boing/D/uhAMNwVb8yfkc.html.

[19] Biddle, Peter; Paul England, Marcus Peinado und Bryan Willman (Microsoft Corporation), „The Darknet and the Future of Content Distribution", 2002 ACM Workshop on Digital Rights Management, November 18, 2002, Washington DC, http://crypto.stanford.edu/DRM2002/darknet5.doc; Haber, Stuart; Bill Horne, Joe Pato,

forward is [DRM]. Alternative compensation schemes or similar measures are clearly not the way forward for the dissemination of content in digital networks and for the development of new and innovative services."

On the contrary, a growing number of copyright scholars, practitioners and activists see that alternative compensation schemes are clearly the only way forward for the dissemination of content in digital networks and for the development of new and innovative services. In the „Berlin Declaration on Collectively Managed Online Rights: Compensation without Control,"[20] a number of them spoke out in favor of „a flatrate for digital works to balance the interests of the various stakeholders and to create innovative markets and foster an equitable and inclusive European Information Society."

Or, in the words of Bennett Lincoff, former Director of Legal Affairs for New Media at ASCAP: „The online transmission right, collectively administered, and subject to a statutory license, is the best model for music rights administration in the digital age; it is a full, fair and feasible solution to the dilemma of online music licensing. If implemented, it will allow an online music marketplace to flourish."[21]

- We fully support BEUC's call for enforcable consumer rights, including the private copying exception, which cannot be overridden by contract terms or deployment of DRMs.[22] We urge the Commission to actively promote the research and development of alternative compensation systems.

Interoperability and Compliance

Among the declared aims of the HLG was: „Interoperability requirements, including standardisation developments, for DRM to meet users' expectations."

Tomas Sander, Robert Endre Tarjan (Trusted Systems Laboratory, HP Laboratories Cambridge), If Piracy is the Problem, Is DRM the Answer? HPL-2003-110, Mai 27 th, 2003, http://www.hpl.hp.com/techreports/2003/HPL-2003-110.pdf; David Safford, IBM Research, „Clarifying Misinformation on TCPA", Oktober 2002, http://www.research.ibm.com/gsal/tcpa/tcpa_rebuttal.pdf; Bruce Schneier, The Futility of Digital Copy Prevention, in: Crypto-Gram Newsletter, Mai 15, 2001, http://www.schneier.com/crypto-gram-0105.html#3; Anderson, Ross, `Trusted Computing' Frequently Asked Questions, Version 1.1 (August 2003), http://www.cl.cam.ac.uk/~rja14/tcpa-faq.html;

[20] Berlin Declaration on Collectively Managed Online Rights: Compensation without Control, in response to the call for comments on the Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee on the Management of Copyright and Related Rights in the Internal Market (COM(2004) 261), Berlin, 21 June 2004, http://europa.eu.int/comm/internal_market/copyright/docs/management/consultation-rights-management/berlindeclaration_en.pdf

[21] Lincoff, Bennet (2002), op. cit.

[22] Bureau Européen des Unions de Consommateurs, Digital Rights Management, BEUC/X/025/2004, 15 September, 2004

For users, standardisation in general is a two-edged sword. Yes, it meets their expectations of flexibility and interoperability. But it is not necessarily the best technology that becomes the standard,[23] and once a standard is set, especially if it involves a comprehensive infrastructure like DRM, it discourages further innovation and therefore reduces users‘ choice.

The length at which the Report goes into the issue of interoperability shows that industry is aware of the tremendous problems involved. In order to establish a comprehensive, watertight and seamless DRM environment, the report acknowledges a number of factors industries have to come to terms with. Among them are:

- billions of consumer devices that do not support DRM,
- a wide variety of incompatible developments among different industries,
- the difficulties in bringing a wide variety of stakeholders together to agree on open standards,
- the need for centralized elements of a DRM infrastructure such as key-management which is so vital that it „may necessitate a survivability solution in case of insolvency.“

The timescale, the Report envisages for these problems to be tackled is an unvelievable two to five years.[24] The immens pressure to get workable solutions to the market fast seems to cry for a quick and dirty solution, i.e. a monopoly.

We can fully support the Report where it acknowledges the danger of users, content exploiters, and device and ICT producers becoming locked in to the technology and services of a dominant vendor that captures the position of a gatekeeper. The Report leaves nothing to be guessed at, when it reports agreement among the participants from all represented sectors that „[i]t is natural that in an early phase, there are several competing alternatives. But for achievement of the near universal interoperability needed to produce mass market benefits, at least one technology should be supported in most devices.“

Such pressure supports monopolistic tendencies that have already caused harm to the Internal Market. The Commission is well aware of these dynamics in the DRM market. In a landmark decision last spring, DG Competition found Microsoft guilty of anti-competitive practices and ordered the company to unbundle the Media Player, Microsoft‘s software for displaying DRM protected audio and video content, from its operating system products. More recently, the European anti-trust regulators ordered an in-depth probe into the planned joint acquisition by Microsoft and Time Warner of ContentGuard, a Xerox spin-off that holds the rights to important DRM technologies, most notably XrML.

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[23] A famous example is Betamax vs.VHS. The disappearance from the consumer market of Digital Audio Tape (DAT), which not only provided loss-less audio storage but was also used for backing-up computer data, and therefore had the potential to become a universal tape medium, is another sad example of this effect.

[24] „Participants from all sectors agreed that the timescale to see meaningful progress towards mass-market deployment of interoperable solutions would likely be in the range two to five years.“ (HLG Report, op. cit., p. 11)

The Commission said, under Microsoft's and Time Warner's joint ownership, ContentGuard may have both the incentives and the ability to use its IPR portfolio to put Microsoft's rivals in the DRM solutions market at a competitive disadvantage. It could slow down the development of open interoperability standards, and allow the DRM market to tip towards the current leading provider, Microsoft. In light of DRM solutions becoming pervasive throughout the entire IT industry, the Commission also sees the danger of such concentration having spill-over effects on related markets ranging from mobile telephony to word processors.[25] This danger has already become manifest in the exclusion of competition in markets for physical goods such as printers, automobile electronics and mobile phone sets.[26] DRM is not a matter of trust but first and foremost one of anti-trust.

Especially unsettling is the implication of a necessary element of the „DRM proposition" that the Reports states thus: „Compliance is also important. A compatible but non-compliant device would undermine all the interoperating DRMs." Lawmakers in Europe[27] have consistently refused to mandate DRM. The industry stakeholders in their Report demand new legislative measures for governing and protecting DRMs, e.g. in order to penalize „non-participating parties."

If new legislation is not forthcoming, which we sincerely hope it will not, they suggest contractual terms of technology licensing to achive compliance. This strategy is already being applied today. For example, the DVD Copy Control Association licenses technologies necessary for playing commercial DVDs (like CSS) exclusively in a bundle together with a whole range of other DRM components such as region code technology. The DVD region code is clearly not intended for protecting copyrights but business models. By tying it to technical measures to which the law has granted special protection, the region code scheme is protected as well, effectively extending the range of protection beyond what lawmakers had intended.[28] This is an extra-legislative way of establishing a comprehensive mandate of DRM.

- Again, we urge the Commission to reverse the process of privatising copyright law and take serious its task of safeguarding public interests in the emerging digital environment, such as preventing predatory anti-competitive behaviour and bullying market players into adherence to regimes set by dominant parties.

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[25] EU opens probe into Microsoft/Time Warner/ContentGuard, New Europe. The European Weekly, August 29-September 4, 2004 Issue Number 588, http://www.new-europe.info/new-europe/displaynews.asp?id=174

[26] Anderson, Ross, Cryptography and Competition Policy. Issues with `Trusted Computing', given at WEIS2003, http://www.ftp.cl.cam.ac.uk/ftp/users/rja14/tcpa.pdf

[27] In the U.S. there are a few exceptions, like the Digital Home Recording Act mandating a Serial Copy Management System (SCMS) for digital audio recorders, and more recently the broadcast flag required by law to be implemented into all digital broadcast receivers.

[28] On the use of technology licenses for tying together different DRM components, see Bechtold, Stefan, Vom Urheber- zum Informationsrecht. Implikationen des Digital Rights Management, Beck, München 2002, p. 186 ff.

Conclusion: DRM is a Non-Starter. Let‘s Think of Alternatives!

The industry Report discusses some of the difficulties involved in establishing a DRM infrastructure but it never questions the „DRM proposition“ itself. This is in stark contrast to the wide-spread conviction among technology experts, including those in companies represented in the HLG, that DRM is „ineffective“ (Biddle et al. (2002), Microsoft and Haber et al. Hewlett-Packard[29]), „stupid“ (Safford, IBM),[30] „futile“[31] and „a non-starter.“[32]

This conviction is proven by the music-on-demand system hailed as the biggest success story so far, Apple‘s iTunes Music Store. FairPlay, the DRM system Apple uses for its Music Store, has not only been reverse engineered[33] and broken[34] a number of times, it also allows, without any modification, to write the music to a CD in the standard audio CD format without any DRM protection, from which it can be copied using standard and perfectly legal tools.[35] The design of this DRM evidently does not even pretend to prevent unauthorized uses, at most it presents a slight obstacle. Apple CEO Steve Jobs leaves no doubt as to the reason, by publicly pronouncing: „We said [to the record companies]: None of this technology that you're talking about's gonna work. We have Ph.D.'s here, that know the stuff cold, and we don't believe it's possible to protect digital content.“[36]

Even if eventually this conviction proves itself right also to policy and industry decision makers and DRM is abandoned, much harm will have been done along the way.

< For citizens:
Their privacy, use rights under copyright limitations and exceptions, access to and long-term preservation of information in libraries, and their choice of products and

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[29] „We conclude that given the current and foreseeable state of technology the content protection features of DRM are not effective at combating piracy.“ (S. Haber et. al (2003), op. cit.)

[30] "My personal oppinion (not speaking for IBM) is that DRM is stupid because it can never be effective and because it takes away existing consumer rights." (D. Safford (2002), op. cit.)

[31] "Digital files cannot be made uncopyable, any more than water can be made not wet." (B. Schneier (2001), op. cit.)

[32] „It's baffling to me that the content industries don't look at the experience of the software industry in the 80's, when copy protection on software was widely tried, and just as widely rejected by consumers.“ (Tim O'Reilly interview: Digital Rights Management is a Non-starter, Stage4, 27/07/03, http://stage4.co.uk/full_story.php?newsID=272)

[33] By competitor RealNetworks Inc.

[34] First by Jon Johansen, also known for his DeCSS program.

[35] On FairPlay, see http://en.wikipedia.org/wiki/FairPlay.

[36] Steve Jobs: The Rolling Stone Interview, December 03, 2003, http://www.rollingstone.com/features/featuregen.asp?pid=2529

services are threatened. They will lose functionality of their media devices. And in the end, users and authors will have to pay for the grandiose project of a pervasive DRM infrastructure.

< For authors:
Authors will suffer from increased market concentration. While today they do get compensation for private copying through collecting societies, they will not be compensated for the copying that DRM allows for. They lose the possiblity to promote their work through file sharing networks. And in the end, authors and users will have to pay for the DRM infrastructure.

< For innovation and competition in the content industries:
Content industries will suffer from increased market concentration, leading to high transaction costs. DRM serves large corporations. SMEs or even individual authors will not be able to afford licensing the technologies or their use.[37] „Individual licensing“ ist extremely costly.[38]

< For innovation and competition in the technology industries:
Market concentration and blockage of alternative developments will make them suffer like most everyone else. They will have to deal with a new level of complexity as DRM becomes pervasive in all devices and software.

< For the fundamental infrastructure of the information society:
The open architecture of the universal and freely programmable symbol processing machine PC and the universal communications medium Internet are threatened. They are the necessary prerequisite for the wealth of innovation that the digital revolution has brought forth. If DRM abolishes these open architectures, the future progress is in danger.

To “put users at the centre,“ to „improve participation, open up opportunities for everyone and enhance skills,“ and to achieve an „information society for all“ are the declared goals of

[37] Hubert Gertis at the symposium „DRM und Alternativen“, Helmholtz-Zentrum für Kulturtechnik, Humboldt University Berlin, 30/31 January 2004, http://waste.informatik.hu-berlin.de/Grassmuck/drm/. In the same sense: „DRM systems might be operated by big producers only.“ (Jörg Reinbothe, "Private Copying, Levies and DRMs against the Background of the EU Copyright Framework", at the conference "The Compatibility of DRM and Levies", Brussels, 8 September 2003, http://europa.eu.int/comm/internal_market/en/intprop/news/2003-09-speech_en.htm)

[38] Richard Owens (Head of the Copyright Section of the WIPO Secretariat), at the Transatlantic Consumer Dialog (TACD) Meeting on Copyrights, Brussels, 4 February 2004.

eEurope 2005.[39] The vision that the HLG Report presents is contrary to these goals. As it seems, public policy and industry are already locked in to the single-path solution of DRM. We have to think about alternatives.

- We urge the Commission to reconsider its support for the single-path solution of DRM of which there is strong evidence that it is a dead-end street.

- We urge the Commission to convene a similar High Level Group or other suitable forum with stakeholders from civil society, science and business on the dangers of DRMs and on alternative systems that ensure compensation of rightsholders without control over users.

[39] Communication from the Commission: eEurope 2005 – An information society for all, COM (2002) 263 final, http://europa.eu.int/information_society/eeurope/2002/news_library/documents/eeurope2005/eeurope2005_en.pdf