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Problems with the
Justification of Intellectual
Property Rights in Relation
to Software and Other
Digitally Distributable Media

TURKU CENTRE *for* COMPUTER SCIENCE

TUCS Dissertations
No 83, May 2007

Problems with the Justification of Intellectual Property Rights in Relation to Software and Other Digitally Distributable Media

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To be presented, with the permission of the Faculty of Mathematics and
Natural Sciences of the University of Turku, for public criticism in the
Auditorium Beta of the Department of Information Technology in
May 26th, 2007 at 12:00.

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2007

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ISBN 978-952-12-1843-9
ISSN 1239-1883
Painosalama Oy – Turku, Finland 2007

To Richard Stallman,

who showed me the way.

UNIVERSITY OF TURKU
Department of Information Technology

KIMPPA, KAI KRISTIAN: Problems with the Justification of Intellectual Property Rights in Relation to Software and Other Digitally Distributable Media

Ph. D. thesis, 149 pages.
Information Systems
26.5.2007

BASIS There is a clear problem with the current intellectual property right (IPR) protection of software and other digitally distributable media (DDM). None of it falls within the public domain to be used and further developed by those wanting to do so within their life time, in the case of copyright, or within the expected life time of the software, in the case of either copyright or patent. The IPRs of software and other digitally distributable media seem to continuously lengthen and strengthen instead of the early expectations of digital age shortening and lessening them.

PURPOSE The purpose of this study is to look at the classical justifications for IPRs and the theories behind these justifications. In order to see whether they, combined with the recent changes the digitalisation of distribution has brought with it actually promote the current western IPR laws or not. Based on this discussion will be an examination of whether a different solution would be needed. If a different solution is reached, what it would cause and how creation of the immaterial can be guaranteed is then pondered.

OUTLINE This thesis is divided into three major parts: The introduction in which a background for the study is built, the articles, which handle the different classical theories used to justify current IPRs and the problems of these justifications, and the conclusions drawn from these and what other models could be offered based on these conclusions.

METHODS The study is premised on normative ethics and political philosophical theories. The aim of the thesis is not to describe what is, nor what can be known but rather what should be. These theories are Lockean Liberalism, Consequentialism, Kantian Deontology and Relativism. Perhaps surprisingly, the current IPR systems do not seem to get a justification from any of the theories; at least in their current form.

RESULTS The study shows that using the classic justifications for intellectual property is shaky at best. Based on the Lockean, Deontological and Relativist studies, they are false, and in the case of a Consequentialist justification it would seem that the burden of proof falls to those claiming a need for an IPR system of the contemporary kind. The arguments against the justifiability of the current IPR systems stand especially well in the contemporary world due to the digitalisation of information and, in the case of software, the original ideas of possibility of re-use and further development after the limited monopoly has expired not having been fulfilled.

KEYWORDS Ethics and Information Technology, Intellectual Property Rights, Digitally Distributable Media, Free and Open Source Software

Acknowledgements

This doctoral thesis is the result of an interesting journey into the world of academic discourse of the ethical problems of Information and Communication Technology (ICT). It is about good, moral good, as uninteresting as that is often seen in the field of ICT. It is about the justifiability of IPRs which many take for granted, but which really are not easily justified. Now that the completion of this thesis is at hand I would like to thank those who none the less supported me in approaching this difficult issue.

First of all I want to thank my supervisors Professor Markku I. Nurminen and Professor Emeritus Timo Järvi, who saw the potential in me by giving me challenging positions at the Department of Information Technology in University of Turku; who gave me the freedom I needed to do this study and supported my choice of approach towards it. With more restrictive supervisors, I fear the study would have not turned out as well—if at all. I hope I have not disappointed you in not keeping the time I promised to take to graduate, barely half of it has passed and the dissertation is ready.

I would like to thank my esteemed opponents, Professor Emerita Inger Eriksson-Dickson and Adjunct Professor Tero Vartiainen for the possibility of defending my thesis. The examiners, Professor Emerita Inger Eriksson-Dickson and Professor Richard Spinello, deserve credit in enabling me to strengthen the study through their critical, yet constructive critique. It has honed the content of the study to the level the reader is experiencing.

I would also like to thank the members of IFIP Working Group 9.2 on Social Accountability and Special Interest Group 9.2.2 on Ethics for the support and critique they have provided for me by letting me present the issues in teach-in's and discussing them in their meetings. The support of Penny Duquenoy has been especially important to me, for she trusted in me in the evening of November 14th 2002 in Lisbon, Portugal enough to invite me to give my very first academic presentation of this study in the meeting of these IFIP groups during the following January in Namur, Belgium. During this presentation I saw the light of understanding—if, in many cases not the nod of agreement—flicker in the eyes of the ones listening. That was possibly the most satisfying moment for me throughout the journey; to see that I could actually make sense. I would also want to thank Jacques Berleux for always welcoming me warmly to Namur. Every single member of these groups has given me support and many constructive critique. To name but a few, I would especially like to thank Chris Zielinski for always nagging me on the “clear problems” in my presentations, and Richard Sizer for pointing out certain specifics which I had to answer in my articles and which might have bypassed my attention were it not for his eye for the particulars.

The articles comprising this thesis have gone through various reference processes for which I am ever grateful to the reviewers, the editors of the books and the

organisers of the conferences in which the articles have appeared. Unfortunately I cannot thank the reviewers by name, since the review processes have been blind reviews, but I would like to extend my thanks to Professors Richard Spinello and Herman Tavani, Lee Freeman and Graham Peace for including my articles and chapters in their books, and to all the editors, organisers and reviewers of the conferences in which my articles have been published.

I would like to thank Penny again, together with Andy Bissett and Katariina Sovela for proof reading my at times staggering English. The progression of language is clearly visible from the first article towards the last ones, and the thanks for this go to these people.

Warm thanks also goes to the LABORIS members, my colleagues at the Information Systems, the Department of Information Technology and for the support TUCS doctorate school has offered for this dissertation.

Professor Wendy Gordon earned my ever-lasting gratitude in preparing me for the defence by opposing my very first article in Boston, US, 2003, in the Sixth Annual Ethics and Technology Conference—all the following presentations have been easy after that critical but supporting opposition a very green doctoral student received. Others who have contributed through constructive criticism and given support for the endeavour during conferences include at least Dr. Richard Volkman, Professor Richard Spinello and Dr. Kenneth Himma amongst many, many others.

Thanks also go to Thomas Powers, without whom the “extra curricular” programme of the conferences would never have been the same. Quite often “the last two standing”, we have been.

Professor Emeritus Juhani Pietarinen pointed me to the right direction during my master’s thesis by supporting the choice of IT ethics instead of pure study of the classics in philosophy; thank you Juhani, now I have been able to combine them both in my dissertation.

Last but certainly not least, I would like to thank my wife Tiina for being understanding of the long evenings (like this one) spent at the department writing and rewriting the articles, the dissertation and preparing the teaching which goes with the positions I have held during these six years. I hope that I have not neglected you or our children Lassi, Tuulia and Veera too badly during this time.

Turku, January 2007
Kai K. Kimppa

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List of Abbreviations

DDM(s)	Digitally Distributable Media(s)
DMCA	Digital Millennium Copyright Act
F/OSS	Free or Open Source Software
FTP	File Transfer Protocol
GNU	Gnu is Not Unix
GPL	General Public License
IPR(s)	Intellectual Property Right(s)
P2P	Peer-to-Peer distribution
TEOSTO	Tekijänoikeustoimisto
TRIPS	Trade-related aspects of intellectual property rights
TTG II	The Two Treatises on Government: Second Treatise (number relating to paragraph, not page)
WIPO	World Intellectual Property Organisation
WTO	World Trade Organization
WWW	World Wide Web

List of Original Publications

- Paper I** Kimppa, Kai K. (2005), Intellectual Property Rights in Software—Justifiable from a Liberalist Position? The Free Software Foundations Position in Comparison to John Locke's Concept of Property. In Richard A. Spinello and Herman T. Tavani (eds.), *Intellectual Property Rights in a Networked World: Theory and Practice*, Idea Group Publishing, Hershey, PA, USA. Originally published in The Sixth Annual Ethics and Technology Conference, *Intellectual Property Rights in a Networked World*, pp. 143-152, Boston College, June 27-28, 2003.
- Paper II** Kimppa, Kai K. (2004), Redistribution of Power from Government to Intellectual Property Rights Owners and Organizations Looking After Their Interests: Justifiable from a Liberalist Position? – The Free Software Foundations Position Compared to John Locke's Concept of Distributable Rights. Second Summer School by IFIP WG 9.2, 9.6/11.7, 9.8, in Penny Duquenoy, Simone Fischer-Hübner, Jan Holvast & Albin Zuccato (eds.) *Risks and Challenges of the Network Society*. 4-8 August 2003, Karlstad University, Sweden.
- Paper III** Kimppa, Kai K. (2004), Consequentialist Considerations of Intellectual Property Rights in Software and other Digitally Distributable Media in *Ethcomp 2004, Challenges for the Citizen of the Information Society* University of the Aegean, Syros, Greece, 14 to 16 April 2004.
- Paper IV** Kimppa, Kai K. (2005), Kantian Duty Ethics Compared with Current Intellectual Property Rights Laws. *Computer Ethics, Philosophical Enquiry 2005*, University of Twente, Enschede, The Netherlands, July 17-19, 2005.
- Paper V** Kimppa, Kai K. (2004), Intellectual Property Rights – or Rights to the Immaterial – in Digitally Distributable Media Gone All Wrong? In Lee Freeman and Graham Peace (eds.), *Information Ethics: Privacy and Intellectual Property*, Idea Group Publishing, Hershey, PA, USA.
- Paper VI** Kimppa, Kai K. (2006), Socially responsible international intellectual property rights. IFIP WG 9.2 Conference on Landscapes of ICT and Social Accountability, University of Turku, Finland, June 27-29, 2005. In Zielinski, C, Duquenoy, P. and Kimppa, K. (eds.) *The Information Society: Emerging Landscapes*, IFIP International Federation for Information Processing, a Springer Series in Computer Science, Springer Science+Business Media, Inc. NY, USA.

Preface

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Part I
Synopsis

Introduction

“[A]s a philosopher, who has some share of curiosity, I will not say scepticism, I want to learn the foundation of this inference (of how our respect for the creators of the immaterial leads to a (limited) monopoly to it for them). No reading, no enquiry has yet been able to remove my difficulty (to understand the justifiability of current IPR systems), or give me satisfaction in a matter of such importance. Can I do better than propose the difficulty to the public, even though, perhaps, I have small hopes of obtaining a solution?”

Hume, David (1751)
An Enquiry Concerning Human Understanding, Section IV, Part II,
Harvard Classics Volume 37
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Text in brackets author’s.

Hume is referring to us learning from the past and how can we be sure that in the future the same holds, but surely the quote is relevant when it comes to understanding any new knowledge, and seems especially apt of the current IPR protection schemes.

To understand the law and analyse it will not be enough for this study, for that typically handles only the existing law and its justifications. The justifications for the law *per se* are left outside of the scope of discussion for a large part. This is however clearly not enough as is pointed out by Leppämäki (2006) in her dissertation. An understanding of the current law only tells what is legal under it, not what ought to be legal and what ought not be. Thus it is important to include other views on the discussion as well. These views should include representations from at least the fields of sociology, anthropology, political studies and political philosophy. But for the purpose of understanding the Intellectual Property Right (IPR)² laws the views from social sciences are not enough. Applications of

² A point relating to terminology: “the immaterial” is often used in this thesis when referring to IPRs—depending on the context. This is due to the connotation present in IPRs that the intellectual or the immaterial could in some sense be owned and that is not something the author uncritically accepts. Also, the immaterial is strongly present in the continental legal tradition, e.g. the IPR law is called in Finland “immateriaalioikeus”, in Sweden “immaterialrätt” and in Germany “Immaterialgerecht”, all of which roughly translate to “the rights to the immaterial” or “the law concerning the immaterial”. The latter is the preferred translation of the author since it does not presume any right, be it property or other to the immaterial but rather leaves the rights—whatever they may be—to the legal-political system to define.

computer sciences are, produce and are used to distribute a rapidly growing portion of the immaterial in existence. These applications have radically changed the way immaterial can be, and is, distributed. This study emphasises the theoretical discussion in political philosophy to justify IPRs and aims to show that many of the traditional justifications must be re-evaluated. One major reason for the need to re-evaluate them is the difference the applications of computer sciences, especially the development of Internet and its various applications such as World Wide Web (WWW), Peer-to-peer distribution (P2P), File Transfer Protocol (FTP) and even e-mail have brought forth. It may have been justified to introduce IPRs during the time of the immaterial taking the form of material when distributed as Stallman (1994) notes. And as Haarmann (2001) points out the Finnish IPR law still considers the physical copies of the immaterial to be to what the rights apply to.

Even though studies on IPR law typically fall within the jurisprudence, and studies on justifiability of laws within philosophy of jurisprudence, since the effect of the applications of computer sciences to today's immaterial is unquestionable, the study fits also within the field of computer sciences. The method used, however, is a typical analytical study. The reason for this is clear; there is no possibility to observe the claims of this study in the real world unless the argument presented is taken to be worth considering in the political arena and implemented, at least to some degree, in practice. The author holds little hope of this; at best, the study can point out some serious problems with the current IPR regime and thus slow the growth of or lessen the artificially built fences around the immaterial.

A critical and analytical approach to the justification of IPRs in the digital environment is taken. The traditional justifications for IPRs are seen problematic at best in the study, and a critical analysis of them helps to see them from a new perspective. The method would likely be different if the work was either from the point of jurisprudence or from any of the traditions of computer sciences instead of a multidisciplinary study comprising parts from both of these traditions as well as political philosophy and ethics. This is typical of the studies in the ethics of information technology (IT-ethics) under which this dissertation belongs.

In this dissertation the classic philosophical justifications for Intellectual Property Rights (IPRs) based on Liberal (or Libertarian), Consequentialist and Deontological theories will be looked at. Also, due to the growing importance of globalisation some relativistic arguments and their impact on the international situation will be examined. It will be argued that the general justifications do not follow from the premises accepted to be most compelling, i.e. a Lockean view based on the labour theory of work in liberal tradition, the most good for the most people in consequentialism, or Kantian duty based on Categorical Imperatives, and that the Relativist view does not support the now popular view of one system for all in any case. It is argued that the classic interpretations of Locke, utilitarianism and Kant when it comes to IPRs are flawed and that the arguments presented in this paper are more compelling.

This point is especially relevant due to the fact that in the books addressing ICT ethics in general this topic is typically handled in a way which approaches legalism (Forester and Morrison, 1990) and/or very simplistically accept the traditional claims (see e.g. Johnson, 1994 and 2001) or rather than ponder the ethical justification of IPRs, again take the IPRs themselves as granted and only question the current interpretation (see e.g. Spinello, 1995). Fortunately, there are some (e.g. Weckert and Adeney, 1997) who instead of implicitly trusting the current status quo start by pondering what is property, how does that lead to intellectual property (or does it?) and whether the interpretations in regard to the intellectual property of such classics as Locke or Marx on property are justified.

On top of this the changing landscape of digital distribution possibilities, especially the Internet, has affected the transition from physical copies of IPRd works to digital ones in which most of the costs of distribution are nearing zero while the IPRs are getting stronger and longer and their enforcement is getting exceedingly draconian (Stallman, 1994).

In stead of the current system a general system based on the GNU (Gnu is Not Unix) GPL (General Public License) is proposed. In this system the party creating and subsequently distributing the immaterial does not have sole ownership of the immaterial. Instead the created immaterial work becomes the property of both (or all) parties involved and, in the case of software, the source code must be included in the distribution.

The effects the proposed system would have on society and on the way software and other digitally distributable media would be created would of course be immense. The current (in any meaningful sense un-)limited monopolies would become impossible. The way of doing software business or any digitally distributable media work would need to be reconsidered. Some directions to which this could be taken include, but are not limited to actually paying for work done instead of a right to control distribution, offering additional goods and services with the content or further developing existing material. Of course creating immaterial and then selling it as is done now is not impossible either (Free Software Foundation, 1996c). It would however very likely become less lucrative and not be profitable enough as the only form of compensation for the work done—at least for most producers of immaterial.

The effects on work and information system development would also be profound. Since systems would be open and could be further developed by any party involved, the contracts would have to be negotiated in a different manner compared to the current. Internal development, possibly together with some outside aid (be it paid for or based on interested third parties), would become attractive again. User interfaces and modules used in one information system would differ from one-another as they do now as well, but gaining business advantage due to the software used would likely diminish none the less, since competitors would be more capable

of utilising the same parts and comprising their software from those and other modules. The selection and integration of the modules would become the business strategy aiding part instead of purchasing a ready-made package and then tailoring it, where possible, to fit the business.

Differences would of course remain to some degree. An information system is, at least in a successful business, tailored to the needs of the business strategy, which cannot be readily altered to another company. Instead the information system used must be modified to support the strategy. This, as is known, is no trivial task. Even though the modules for most parts might be available, and to some degree already are even in the few today's F/OSS developed systems, their selection and the way they need to be integrated to support the business strategy will mean work for either the internal development team or the hired programmers, be they a supplier of software packages or even software developers employed for the duration of the implementation of the system, this including also actual taking into use, modifications and training of personnel.

The Traditional Justifications for IPRs

The actual justifications for IPRs are not delved into very deeply. Rather, the main points are presented here. The actual evidence together with the counter arguments will be presented in the next chapter.

Locke: Everyone has a right to property through labour theory of work. All property, including intellectual property (although Locke does not say anything about this), owned by the one doing the work is the most common classic interpretation (see e.g. Spinello, 2003a). “What I create is mine”, is the typical thinking behind this justification. This has been criticized from many different points of view, yet, intellectual *property* right is what is used in the Anglo-American tradition. Also, from Locke it is difficult to find a lasting justification for IPRs. On the contrary, it would seem that there are plenty of reasons in Locke—at least implicitly—to abandon this thinking (Kimppa, 2005a). The utilitarian thinking seems to have become prevalent in the arguments for IPRs. It lacks credibility, however.

Utilitarianism: We need to reward the creator of the immaterial, lest we not have any immaterial creations (or at least not as many). The desert theory has been traditionally accepted with little criticism, although a lot exists and is handled in Kimppa (2004a).

Kant: Respect for the author/inventor needs to be codified to the law for them to receive the respect they deserve (both moral and financial) otherwise the users of the immaterial would not give the deserved respect for the creator of the immaterial. This justification is at the base of many continental legal systems granting rights to the immaterial. Unfortunately, if we are consistently Kantian in our interpretation, it does not seem to answer the need for respect for the citizen.

Relativism: This argument has been more problematic even traditionally. Different moral models are recognised, but “moral imperialism” is also typically accepted; “we know better than you, thus we can tell you what you ought to do”.³

³ Hegel is excluded due to several reasons. First, his view on intellectual property is heavily contested (see e.g. Hughes, 1988 or Schroeder, 2004 who claim that there can be no natural rights (but only “unnatural” rights) according to Hegel for a view in opposition to the ‘traditional’ *droit de suite* approach). Second, a selection must be made on which theories are relevant to a dissertation. The selected theories are in the authors view *more* relevant to the current discussion of the justification of IPRs in relation to ICT. Third, *some* of the more classic Hegelian justifications can be seen studied in the article on Kant.

Why is now the time to raise this issue?

- 1) The classic interpretations themselves can, should and to a small degree have been questioned. Yet, IPRs seem to grow stronger and apply for longer terms continuously (see e.g. Lessig, 2001).
- 2) On top of this, the digitalisation of the immaterial (compared to the traditional material in the form of paper/book/vinyl/tape) has changed the distribution models considerably. The additional costs coming from distribution through the digital media, especially the Internet is negligible.
- 3) Especially when it comes to software, but also in regard to a lot of other immaterial, there *is no* limited monopoly in any meaningful sense. The copyright of today is not limited in human scale. Nothing created today will be in the public domain *ever* for me *even* if we presume that the copyright term is not lengthened (and there is a worrying precedent to it being lengthened approximately once in decade (Lessig, 2001)). In the specific case of software even patent when it is granted to software effectively puts software development out of the public domain. The useful life time of softwares are just not long enough to warrant any further development after 20, let alone after lifetime + 70 years. The only truly public domain software the author is aware of was created by Ada of Lovelace (died November 27th, 1852) during the 19th century to calculate Bernoulli numbers for the Analytical Engine, a general-purpose computer designed (but not built during either the designer's or the programmer's life time) by Charles Babbage (see e.g. Toole, 1995 or Women in Science).

The Articles

The first article (Kimppa 2005a) considers the difference between material and immaterial and whether the traditional argument from Locke (TTG II) holds for the immaterial as it holds for the material. The conclusion of the article is that for three main reasons it does not, 1) no one is deprived of what they have, 2) immaterial is a method instead of property and thus not ownable and 3) artificial scarcity is created where none would exist.

The second article (Kimppa, 2004c) introduces the question of what rights are transferable from the individual to a government of a commonwealth⁴ according to Locke (TTG II) and especially whether these rights are further transferable to an arbitrary third party. According to this article, the right to do with what one owns is not a right transferable to an arbitrary third party.

The previous two articles raise the question of (global) consequences which are handled in the third article (Kimppa, 2004a). Although in the liberalist tradition the Consequentialist justifications have typically been considered as tools to find the correct ways of acting instead of justifications in themselves, there is also a strong Consequentialist tradition by itself starting with utilitarianism (Bentham, 1789; Mill, 1861 and others). In this article many if not most of the Consequentialist arguments for IPRs for software and other DDMs are shown to be weak or wrong. These arguments include the common misunderstanding that all utility would be measurable and inter-exchangeable (see e.g. Feldman, 1978) or transferable to money, that marketable goods would necessarily be the needed or wanted goods, that IPRs, by nature, would promote creativity, that all or at the very least most creativity would necessarily cease if no IPRs were granted, and so on. The burden of proof for a system which differs from the natural state of no IPRs should be shifted back on the shoulders of the proponents of IPRs. This applies to both current and other kinds of IPR systems. It is claimed, that these justifications are not strong enough to justify at least the current system from a Consequentialist point of view.

In the fourth article (Kimppa, 2005b) the deontological arguments for IPRs are looked at. It concludes, that from a Kantian (1785) perspective, based on the Categorical Imperative(s) the current laws cannot be justified as has been thought. The duty of the creator of the immaterial towards the user is underplayed in these justifications and thus they do not satisfy the Categorical Imperative(s). Also, for any act to be truly moral according to Kant, it has to be voluntary, and any act mandated by law can hardly be considered voluntary; at the very best we can

⁴ The word “commonwealth” is used in the meaning Locke (TTGII) uses it, to denote a society to which people have ‘willingly’ joined from the ‘state of nature’.

assume that some of the acts are done voluntarily, but, according to Kant, *we cannot know*.

In the fifth article (Kimppa, 2004b) all these arguments are brought together and some minor new points, especially for the Consequentialist argument and the following relativistic argument are introduced. Some history of IPRs is also presented.

The sixth article (Kimppa, 2006) handles the issue from a point of view of global justice. In it is stated that we know as a sociological fact that ethics vary from one social group to another. To show whether this is also morally true or not is not the main aim of the paper, but rather the aim of the paper is to show that if tolerance, which *can* follow from accepting different values is truly a western value, then current international IPR treaties should not be forced on other than the western parties. Even within the western societies there are differences in justifying the IPRs which should be tolerated rather than moulded into one model. Starting from history it is seen that during the industrialisation of practically all of the current industrial and post-industrial states rampant IPR violations (from the point of view of the current international “treaties”) were either legal or allowed through-out history and it seems to rather be a necessity for industrialisation and/or post-industrialisation of a country to allow them.

From all the articles it can be seen that there are alternative systems which could be, and to some degree are, used instead of the World Intellectual Property Organisation (WIPO) promoted IPRs. It would seem that a system which closely follows the Free or Open Source Software (F/OSS) model would answer the moral needs of the people far better than the current system, and even better than the alternative systems offered, such as 5 year copyright term, once renewable for another 5 years offered by Lessig (2001) 6-8 years long patent system promoted by Spinello (1995) or the length an independent research group starting then would need to complete the research (Hettinger, 1989).

The Philosophical Justifications and their Problems

First, the Lockean justification for property will be looked at (Kimppa, 2005a; 2004b). The justification for material property given by Locke (TTG II, 5), which is not in itself criticised in this work, is seen not to extend to the immaterial for various reasons. The main reason for Locke's need for the labour theory of property is his need to secure the right for survival, which in turn requires access to food, drink, etc.; basically the essential needs pointed out by Maslow in his seminal work (Maslow, 1943). Locke was concerned that the material objects could only be owned by so many persons at any one time; typically by one person, although there are examples of cases in which many can own a certain material object jointly. Even more common is the case that a material object can only be *used* by one person at a time. Because of this it is necessary to invent some, hopefully justified, system of ownership or at least of control of material goods. Locke uses the labour theory of property to justify this, and even though the author is somewhat sceptical with regard to the solution Locke comes up with (even for material goods), that is not the point of the thesis in. It is sufficient to note that from Locke's premises it is reasonable to come to the conclusion he draws, and hence it has been used as a basis for most, if not all, western liberal thinking of property.

The difference between material and immaterial is that one can be deprived of the material, but not of the immaterial. The material can be stolen from the owner, while the immaterial cannot. The immaterial is unrivalrous (Moore, 1998), it does not exclude anyone from it, but instead it can be copied so that the original knowledge remains with the creator of the immaterial. The more times an immaterial work is owned, the more times it is copied, all and any who have a want or a need for an immaterial object can own it simultaneously. Of course, the material carrier of the knowledge might be stolen, but this is again stealing of material property, not immaterial.

Also, at least implicitly, Locke does not see the *method* as something which could be owned through work. He specifically gives several examples in which the products of the work are owned, yet, nowhere does he even hint that to reproduce the work one would need to ask for a permission from the one copied. To be even more precise, he specifically gives every person a right to appropriate things from the commons⁵—whether by a method they themselves come up with or copy from another (see e.g. TTG II, 27 and 29).

⁵ The material commons, as understood in Locke's work (TTG II) are owned by noone, and thus all the natural goods in it are available for anyone to appropriate. Unfortunately material commons are limited and for the most part now appropriated by one party or another.

The immaterial commons are not like the material commons. The material commons are, unfortunately, limited. Limited both in availability of raw materials and of course the common goods people today want (e.g. a computer) are not freely available in the natural state for anyone to “pick”⁶. The immaterial commons, however, are not limited; unless limited artificially (see Figure 1.). Of course, there are no blue prints for a computer to be picked from in the immaterial commons if no one has invented them, but once invented, there is an abundance of them, unless they are limited somehow—i.e. through IPRs. There is no reason why another could not use the same immaterial as one is using, if such privilege to IPRs was not granted. The main point to note here is, that the amount the creator of the immaterial work has of the immaterial work itself in no way diminishes if someone else has the same knowledge.

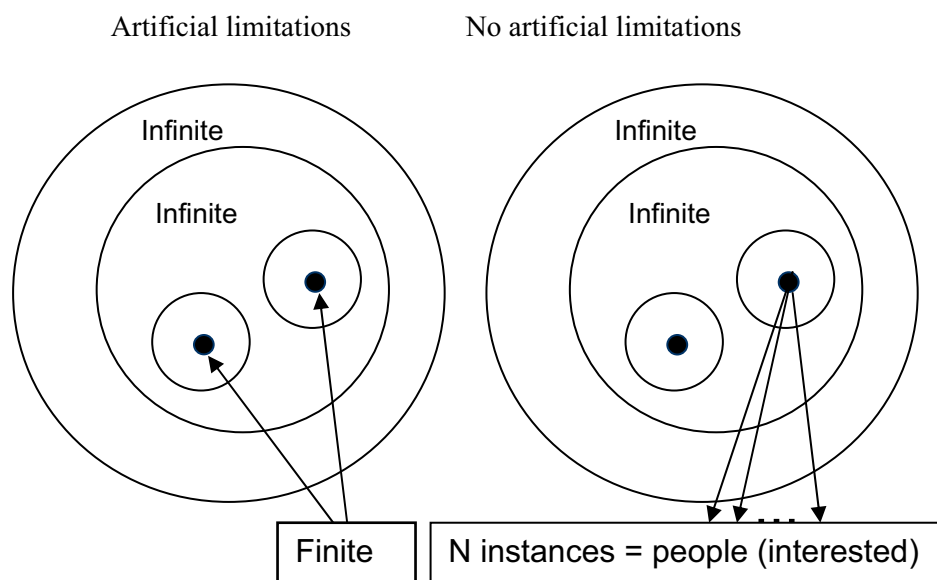


Figure 1. Artificial, socially constructed limits on the usage of an immaterial object compared to no artificial limits. The main point of the figure is to point out that what can be an unlimited amount of resources can be artificially limited to only one or a handful. The outer circle depicts all immaterial, the inner circle represents the potentially beneficial immaterial while the dots depict actual instances of immaterial objects (such as one-click shopping). The small circles surrounding the dots are possible similar instances (two-click shopping, etc.), which, especially in the case of patent, are also often protected but are excluded from the usage of others whenever possible through the IPR laws (e.g. an automatically locking keypad would be “the invention”, while a timed one would be “a similar invention” with a closing—and then locking—keypad would be yet another “similar invention”). In the topmost picture a monopoly is granted to an immaterial object, while in the bottom picture no such limits are in place. The amount of the instances of the

⁶ As in picking acorns or apples from the nature (TTG II).

immaterial varies based on the selected system, not because there would actually be any less or more immaterial available in either system.

The digital distribution of the immaterial, especially via the Internet, has finally allowed for the kind of immaterial commons which could be viewed to follow from Locke. The method for this would be the abolishment of the current IPRs and the use of a GNU GPL type of system in their stead. This would also strengthen the possibility of people (whether users, manufacturers, designers or purchasers) to do with what they have as they please (Long, 1995) without the artificial scarcity introduced by the IPR laws.

Finally, what all this boils down to is that the order of “life, liberty and estate” (TTG II) is that just because it is important to keep in mind that the previous is a requirement for a latter right. Rights to property cannot surpass rights to life or liberty, nor can right to liberty be meaningful without life. IPRs, as a property right, limit our liberty and this is the main reservation arising from the Lockean approach. If these three basic rights are accepted to be true, IPRs must be wrong. We have a natural, unquestionable right to life and in order to be able to exercise that right, the right to liberty must exist. If we cannot even control our immediate property and do with it as we please, then no liberty exists. And this is where IPRs limit instead of enhance our rights.

After this the reasons for people to join commonwealths, or what today would be called nations, are looked at (Kimppa, 2004c, 2004b). Locke sees basically only one reason for joining commonwealths, namely, that it improves the situation of those choosing to join. As Stallman (1994) puts it in the case of copyright (although this is of course only one point to consider):

“The real established tradition of our society is that copyright cuts into the natural rights of the public--and this can only be justified for the public’s sake.” (Stallman, 1994)

According to Locke (TTGII), if the prerequisite of improving ones condition is not fulfilled, it would be absurd to join. If the right (or privilege) to intellectual property hampers one’s possibility to do as one pleases with one’s property, this would surely worsen the situation of a person joining a commonwealth. Instead, remaining in the state of nature, outside the politically ordered society, where they could freely use that property as they wish, would seem more appealing if one of the three main rights was limited in the potential commonwealth to join. If these rights (or privileges) do not improve the conditions of the people in the commonwealth, the rights (or privileges) should be reconsidered, and when necessary, revoked. As seen already in the previous article, Locke did not seem to intend for the methods to produce property to be limited, and giving this kind power (over ideas and their execution) to a third party would certainly hamper what we can do with what is ours.

On top of this, a person joining the commonwealth cannot transfer more power to the commonwealth than they have before joining it.⁷ One does not have arbitrary power even over oneself according to Locke. The right to forfeit one's power over one's life, liberty and property are not among the rights one can arbitrarily transfer to another. The state, in certain cases can obtain that power, but transferring these rights over to an arbitrary third party cannot, according to Locke, be done. Since this transfer of rights would clearly hamper the reason for property (survival), it would be absurd in natural state, and thus the government (to which we can transfer rights over our property) cannot either transfer these rights to third parties; in this particular case the IPR holders or organisations representing them. Again, in Stallman's (1994) words: "When a program has an owner, the users lose freedom to control part of their own lives."

To ensure this, Locke points out that "the law of nature stands as an eternal rule to all members of a commonwealth, be they subjects or legislators." (TTG II, 135) What this means is that the legislators must do their utmost to ensure the rights of the people joining the commonwealth and cannot arbitrarily override the natural law, neither in their own decisions nor, especially, by attempting to transfer the rights of the members to others.

For these reasons the government cannot transfer further the rights to pass laws or the right to levy taxes. Yet, the organisations looking after the IPR holders' interests⁸ do just these things. They collect tax-like payments both as a third party and as the party who decides to whom the monies ought to go and how they should be distributed. The practice is to divide some of it to the creators of the immaterial while some of it goes to promising creators or other causes the institutions consider worthy; not to causes which the citizens decide (even through representative democracy). The organisations also decide (to some extent) what size and form these payments take from a tax-like payment on a storing device (CD, hard disk, tape, etc.) to payments made by businesses.

The same applies to international treaties made through WTO (TRIPS) and WIPO (various treaties starting from the Paris and Bern conventions). These organisations force the participant nations to abide by treaties not approved directly through the participants of these societies (or their direct representatives) and thus cannot, according to Locke be in accordance with the rights transferable to governments. "The legislative cannot transfer the power of making laws to any other hands."

⁷ This is held to be true in a wide range of liberal discussion, see e.g. Toner, 2005 for an example on how the citizens of liberal states cannot give the government a right to use the supreme emergency exemption in warfare since they cannot transfer such rights to the government which they themselves do not have. Examples of this would be the right to torture prisoners of war or use mass destruction weapons to kill innocent civilians. This particular example of course refers directly to life or liberty instead of property or its effects on life and liberty, but the point stands none the less.

⁸ E.g. RIAA (Recording Industry Association of America) in USA, CRIA (Canadian Recording Industry Association) in Canada, TEOSTO (Tekijänoikeustoimisto) in Finland or CISAC (Confédération Internationale Des Sociétés d'Auteurs et Compositeurs) in France.

(TTG II, 141.) Rights to the immaterial should benefit the public, enable them to have firmer rights to “life, liberty and property”, but do they?

From the previous discussion one could deduce that the author promotes more direct decision making in order to ensure the rights of the persons joining commonwealths. The Internet would, indeed provide the possibility to apply more of the direct democracy which would make the commonwealth more shallow and enable the citizen to look after their rights, “life, liberty and property”, more easily. This may indeed be the case with local participation. However, one of the main reasons to join commonwealths, and thus why they give gains to the persons joining them, is that it can limit the directness of the interaction and thus give space to more deliberated choices. Even though the Internet offers us a lot of new possibilities, some of them should not, at least rashly, be taken into practice.

The previous two points, namely whether the intellectual works can be owned and what rights can be transferred to the state, raised many questions relating to the potential consequences of doing away with IPRs based on the argument applied from Locke. It is pointed out that there are problems with the Consequentialist arguments (Kimppa, 2004a, 2004b). It is however beyond the capability of the author to conclusively show that the Consequentialist arguments for IPRs would be false. None the less, there are sufficient weaknesses in many of the commonly used arguments (the ‘trickle down’ theory⁹, the ‘desert’ argument, the ‘making a living argument’ etc.) to support a shift regarding the burden of proof—which currently resides on those who hold that current IPR systems should be abolished—towards those who claim such systems are needed. Proving beyond reasonable doubt that the systems which change the natural state of no IPRs to that of artificially created scarcity can be a very difficult task. Especially if the aim is the good of mankind (which, after all, is the aim of all Consequentialist theories of ethics) or even if the aim is only for the greatest profit for all.

The first problem with the Consequentialist arguments is the question of measuring good. If we can ignore qualitative good, then it would appear that we could transfer all good to exchangeable utility as per utilitarianism. This, however, was already deemed problematic by Mill (1861)¹⁰ when he notes that some kinds of pleasure are more desirable and more valuable than others. Clearly, for example love or the joy of inventing or creating are not directly transferable to money. Thus exchanging good to money or profit, which seems to be the utility of today, especially when talking about the potential profits created by IPRs, is clearly problematic. When it comes to the immaterial creations, not all inventions are directly comparable. Cure for cancer is clearly qualitatively different to one-click-

⁹ “Trickle down” means, roughly, that inventions, appliances and applications developed or designed for those ‘better off’ (be they the rich or the inhabitants of the western societies) eventually ‘trickle down’ to all—and, it is often claimed, would otherwise not be developed or designed at all.

¹⁰ For a more thorough discussion on this issue, see e.g. Feldman (1978).

shopping. No amount of the latter kind of inventions can compare with just one of the previous kind.

Although some (e.g. Feldman, 1978) prefer the formulation of “an act is right if and only if there is no other act the agent could have done instead that has higher utility than it has” of the utilitarian doctrine, others (e.g. Johnson, 2001 or Kimppa, 2004a, 2004b) prefer the formulation “everyone ought to act so as to bring about the greatest amount of good (or happiness) for the greatest number of people”. To the author the following kind of situation would clearly be problematic (Figure 2.):

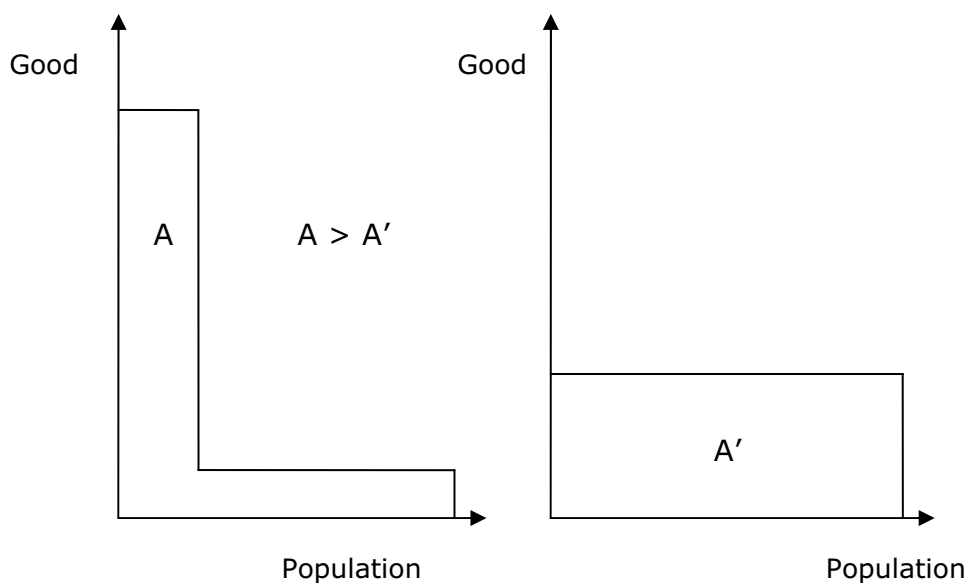


Figure 2. A possible distribution of good. The amount of good is greater in the graph on the left, yet the graph seems intuitively unfair compared to the one on the right.

If we accept Feldman’s (1978) proposed formulation of the consequences, the graph (Figure 2.) on the left ought to be preferred over the one on the right, even though it is clear that in that kind of distribution a few will get a lot, while some will be left with very little. This feels *prima facie* wrong. This of course is the current distribution of money, good and the immaterial in the world we live in. The example would likely be even more clear if the majority on the left would be in the *negative* utility, A still being greater than A’. Clearly no amount of total good can justify leaving others suffering? In the final article this is tackled from an international perspective, but here it suffices to say, that a relatively equal distribution of good is clearly better for all concerned than a very unequal distribution even if the latter would be greater. And one of the main reasons for the inequality in the distribution of good in the world today is the lack of access to

immaterial. After all, what makes a *post*-industrialised society if not immaterial works?

It is also questionable who the main beneficiary of the current IPR systems actually is. It would seem that surprisingly often it is the IPR holder instead of the IPR creator. At best, indirect benefits fall to the IPR creator, such as a job or licensing fees. In Canada, for example, the fees to the band from music are 12% or, more typically, less, while when sold directly in the Internet, the income is clearly higher (see e.g. Fading Way Records, 2006) while the majority of the benefits go to others, such as the distribution company or the employing company. The point to notice here is that the situation for most creators of immaterial would not drastically change if the current IPR system was not in effect or if it would, then it might benefit the “long tail” of creators of immaterial who now are over shadowed by the major “owners” of immaterial (see e.g. Fading Way Records, 2006). Immaterial creations are needed none the less (e.g. for hardware, for plays, for concerts, etc.); the paying party would change, it would be the hardware producer instead of the software house, the theatre needing a play or the customer hearing the live music which was promoted by the distribution of the music.

When it comes to technological innovation the current system seems to favour any immaterial creations, irrespective of their moral value and thus the products we receive are more of the kind marketing can sell than the kind people want or, at the best case, need. Alternative systems or no system at all might (as F/OSS seems to do now) lead to exactly the opposite; just the kind of immaterial the creators or the users actually need. Which, in the case of F/OSS is typical and would also be more typical in the case of no-IPR system, where the creators would be employed more directly by the potential users.

Also, it is pointed out, that even if the local (e.g. within a nation or an area) utility would grow from granting IPRs this needs not be the case globally (Drahos, 1996). Justifying an IPR system by claiming that it gives benefits to members of certain society (or societies), while the externalities are carried by others seems hardly ethical. Typically today, the benefits go to those already in possession of large amounts of immaterial, i.e. western societies, while the ones carrying the externalities are from the developing societies. Access to basic information (e.g. educational materials, ‘the web’, etc.), which in itself is hardly available to all parties in need of it, is not enough. If an equal possibility to function in the global economy is desired, and all evidence seems to suggest that in a Consequentialist view that would benefit those getting to it as well as those already at the level desired, any means which would aid this should be used. This ties well with the ideas in the last article, in which it is claimed that different nations at different times have used different IPR protections depending on the level of their own creation of immaterial works. Those with less immaterial creations have typically not granted IPRs especially to outside their societies due to it not being in the interests of the well being of the citizens in their society.

There is very little evidence to support the argument that the inventions or immaterial creations in general would “trickle down” to those not able to afford them at the time they are created (except through means which by-pass the IPRs of the said immaterial). Although there are examples of trickle down from the field of ICT applications, such as digital cameras in mobile phones, which started to appear in the high end models in 2000-2001 and are now common even in the lower end models, the trickle down effect appears to be very uncommon in software due to the short expected life time of the programs. For example an operating system from ten years ago, Windows 95 has not trickled down. Instead of becoming cheaper and thus more available operating systems today cost approximately the same as then. Also, that particular operating system has not trickled down, but its support has ended and even if it were sold cheaply it would be unusable due to it not being updated to answer the current needs for operating systems. This is not just a problem that is only applicable to operating systems. The same applies to other software such as graphics software, browsers, games, anything. The software from ten years ago, let alone any software that would fall outside the IPR protection naturally due to the monopoly having ended, does not typically even function correctly in modern computers let alone match the needs of today.

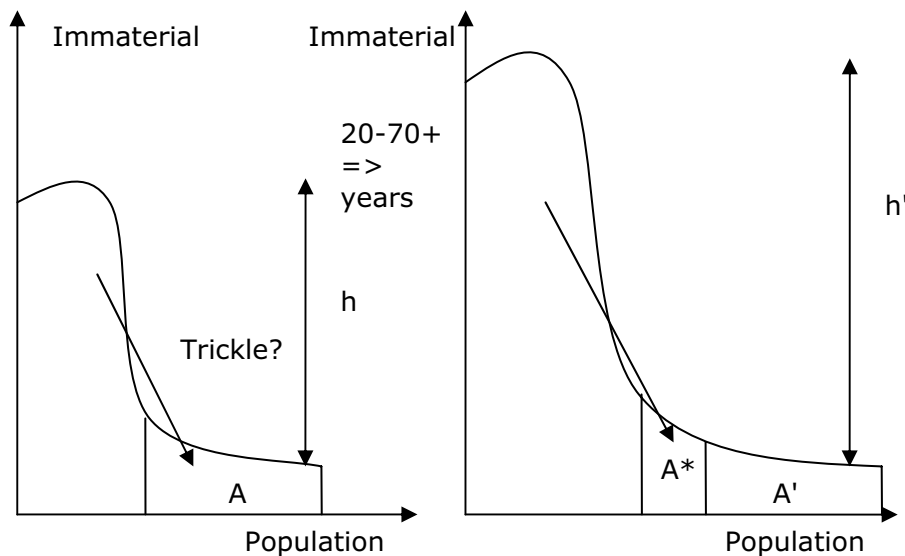


Figure 3. A critique of the “trickle down” idea (hypothetical). The figure shows how the amount of immaterial grows during the time IPR protection is in place. What does not grow, however, is the amount of immaterial to which the poorest have access.

In the human time frame this also seems true for any immaterial protected under copyright as only after 70 years from the death of the (last attributed) creator of a copyrightable immaterial work that work falls in the public domain. I will not be able to freely use or develop further *anything* someone else creates protected under copyright through the *rest of my life, ever*. The dolors of this for the person affected are difficult to compare to the utility gained by the IPR holder. How can they even be made comparable?

Some of the innovations may trickle to some people (A* in the Figure 3.), but at the same time the amount of those with no access to most immaterial seems to stay more or less stable (A and A' in the Figure 3.).¹¹ Their benefit from the so called “trickle down” seems limited at best. The utilitarian argument is often defended with the thought of “no one is worse off if someone gets more without worsening the situation of the others”, but in the words of Dr. Ollila (Ollila, 2005), that is exactly the point; “those dying of hunger *are still dying of hunger*” (emphasis in the original). This is something which could change if the current IPR systems were abolished¹².

The relative distance (h compared to h' in the Figure 3.) between those who have immaterial and those who do not has actually grown during the time it took the immaterial to reach public domain. This might not hold within a society—although there are implications that at least for the lowest decile it does hold even within societies—but it most apparently does between them. The fact that most software specifically does never trickle down—due to it being outdated by the time the IPRs end—actually strengthens this phenomenon.

It is surprising that even though the dissemination of information has become faster—and thus one would expect the return of investment to also be faster—both the protection times for, and strength (i.e. the area covered of, and the extent of legal protection provided for IPRs) of, IPRs are growing. (Free Software Foundation, 1985; Stallman, 1994; Chang 2001a, 2001b; Lessig, 2001). The common expectation during the growth of the digital distribution was that the IPRs would lose importance rather than increasing it (Free Software Foundation, 1985; Stallman, 1994).

Of course there are the typical claims that “no one will program if IPRs are not granted” (Stallman, 1992) and similarly, “no one will produce works of art or music or write books if IPRs are not granted”. These claims are probably the easiest to counter. The need for software, the need for people to experience artistic works or read books will not disappear. There are already various different ways to

¹¹ See e.g. Human Development Report, 2005; even though the percentage of people living with less than US\$ 2 per day has fallen during the 1990-2001 period, the amount of people has not. It is difficult to perceive these people having great access to immaterial products—especially with the current prices and practices.

¹² This issue is handled more thoroughly in the final article.

produce these even without IPRs granted. Thus the predicted consequence of arts, books or software disappearing is false. It is clear that hardware will need software irrespective of IPRs granted. This means that those wanting to sell hardware will have a motivation to promote software creation. (Stallman, 1994) Take a typical example, mobile phone manufacturers need to sell mobile phones, yet, most of the software created for them is done in-house by the very same companies, not externally by software houses (or if so, the typical employer of an external software house is the manufacturer). Of course, also the users of the hardware are going to need software for it, be they private citizens or companies and are willing to support the creation of software in various ways from creating it themselves to paying someone else (e.g. a programmer) to do it. The same applies to music; orchestras are going to need music to play and old music will only fly so far when new is available. The same applies to bands wanting audiences to attend their tours. Art can be copied, yes, but the originals are always valued more than copies, however well made, and digitalisation does not provide the possibilities to replicate paintings. New photographs will be needed for magazines and books and so forth. Yes, it might make the life more difficult for the creator of these immaterial products due to the easier copying and usage of the already produced and sold images, but it hardly makes it impossible.

There are of course also those who would lose if this change was realised. They would in the case of no-IPRs policy these would clearly be the distribution houses, which would no longer have a monopoly-like control of the distribution, but instead the distribution would be directly from the creator to the users and from users to each other. Also, there surely is no way to get quite as rich as those who control the biggest money making immaterial resources of today. But then, the argument of as much good to *as many as possible*, as shown previously ought to win over the argument of as much good as possible for being fairer.

Birsch (2003) has expressed doubts as to whether the current laws hold when it comes to excluding ones closest friends from the immaterial one possesses (software in Birsch's case, but it could be anything) actually support the Consequentialist analysis of the exclusion from the spreading of the immaterial. Birsch looks at small scale copying from both rule and act utilitarian perspectives. Basically, what Birsch says is that in small scale copying the product would not typically be bought anyway and the gain for the individual is greater than the loss for the company selling the software (for a similar argument, see also Stallman, 1996). Koski (2004) criticises this by showing that there are clearly more moral alternatives, such as buying the immaterial for a friend who cannot afford it, he has not, however shown that these better alternatives would, in the final analysis lead far enough. There are plenty of situations, even in the small scale copying which is the focus of these authors' concern, where that does not lead to the greatest happiness, let alone to the best possible consequences. The reason for this is simple, the other who would have the money chooses not to supply it or can use it in a way which causes greater happiness or greater good.

In wider scale copying, the same is true. It is clear that the western societies could provide the other societies with any immaterial creations they have access to, and the required training to use it if they so chose. They choose not to do so, mainly for selfish reasons, although in the name of consequentialism some have tried to put justifications forward. If the creator of the immaterial does not effectively lose anything by the use of the immaterial by a third party (which clearly is the case in most situations where the copying happens in a third world country, say, since the immaterial would not have been bought anyway through the lack of resources) and there is no benevolent party (such as the post-industrialised countries) who would be willing to buy the product on their behalf, it is clear that the good gained outweighs the alleged losses. Thus the act of, say, the Malaysian government to justify ignoring western copyright laws when the education of the populace demands this is clearly justified (PCW, 2002 or infoAnarchy, 2002). This—and the previous argument—lead us to the final topic which is global justice in the IPR systems.

What about the benefits of a no-IPR policy? The main benefit for the society and for others creating immaterial would be the lack of need to “reinvent the wheel” every time new software is needed. Now when a new program is created, if the creator is unable to license previously written software, they need to do all the work again since practically no software is in the public domain¹³. Learning from that which is already done is in software creation typically impossible, in other forms of digital material limited (Grove, 2003). Even finding bugs or security faults in software is problematic due to there being no need to publish the source code with the executable (Pike, 2004). In the words of Eric Raymond, “more eyes see more bugs” (Raymond, 2001). Also, more modular software would be created which would ease the further creation of software as well since the modules would be available for others to use and create the kinds of combinations they need. It might be (and have been) argued, that this is already possible through F/OSS, which of course is true. The same of course holds for music, video, art and other forms now protectable by copyright. Albums such as “The Grey Album”, which was a mix of the “The Black Album” and “The White Album” (Lessig, 2004b) would be feasible and improve our field of immaterial instead of having been pulled back from the sales. This and other mixing would create a similar situation in other immaterial which would lessen the need to invent the wheel again and again. Another example from the field of Comics is Doujinshi, which serves as an example of Japanese different culture; of accepting—often lower level—rip-off stories of the Manga (Lessig, 2001).

Unfortunately, due to IPR protections such as the DMCA (DMCA, 1998), its European counterpart (European copyright directive of 2001, 2001) and software patents this is becoming increasingly difficult to do. These protections make it

¹³ The only exception the author is aware of being the previously mentioned “code” written by Lady Ada of Lovelace; and of course the F/OSS, which most closely resembles the proposed model, although not strictly in the public domain.

impossible to include certain software in the distribution packages of F/OSS and makes those using these softwares criminals in the countries in which it is forbidden. A typical and surprisingly important example would be the DVD decoding software. If DVD movies cannot legally be shown on computers running on non-proprietary software, it ensures that those watching them of course must break the law and those end users not willing to do so will rather use an operating system under which this is possible. It means that the field of competition stays unbalanced for the benefit of proprietary software. If the decoding software could be written independently, there would be no problem. Unfortunately the previously mentioned protection schemes forbid even this.

Digital distribution of music, text and some works of graphic art (photographs, video and photographs of paintings) would also enable the public a larger access to these currently IPRd works. There are claims (Lessig, 2004a) according to which the music currently in public domain is enough to satisfy the cultural development of those unable to afford current music. This is of course nonsense. Firstly, the people forced to satisfy their needs through music, which is at best older than 70 years cannot by any stretch of imagination satisfy their cultural development through it for the simple reason that it is not from our culture, it is from a culture in place at least 70 years ago. Secondly, since even the hardware, let alone the software necessary to distribute even this for those really lacking access is typically not possible, when the music really falls within the public domain. Also, for music performed by current artists, this is hardly ever so. There are few recordings of decent quality which can be digitalised, after all surprisingly few translations of books to other languages than English, and then the IPRs give protection to the one translating, and again it is out of the public domain. If pictures of works of art are taken, the IPRs to the pictures themselves limit the distribution.

Peer-to-peer (P2P) software is available already and the strengths of its capability for distributing what the public needs and wants has been shown—the constant complaints of the music and film industry serve as ample proof. The ever more draconian measures in the IPR laws are not going to stop the use of P2P applications. Recent P2P software is already capable of hiding the actual addresses of those distributing or downloading the files. The copying of files of any kind is rampant, as the distribution industry is telling us. Yet, the works which are distributed through these means continue *also* to sell in more traditional ways. If ones music is not pirated, one cannot be considered successful. If one is successful, it means one has made, or has the potential to make, quite reasonable amounts of money through music sales and concert tours anyway. The same applies to software. The same applies to movies, television series and so on. There seems to be no reason why this could not work in an open system as well as in a proprietary one, although it is likely that the benefits for the currently rich would be closer to the benefits which Stallman (1992) correctly names “making a living”, instead of becoming rich. Also, according to Fading Way Records (2006) (an independent

music producer), the sales and performances for their artists have grown due to embracing a CC licence and actually encouraging P2P transfers of the music.

A typical recent example of the draconian measures Stallman (1994) talks about can be found in current Finnish copyright law (Tekijänoikeuslaki). The harshest example is that even an organised discussion on how to bypass DRM protections with the intent to aid others in bypassing the DRM is now illegal (HE 28/2004). Note, that it is very difficult to tell from the new law whether actual encouragement to do this is needed to break the law. A group of Finnish activists have held an organised discussion and turned themselves in to the police to test the law. To ensure IPR holders rights, the law censors what people can talk about. Even holding an organised discussion on how to build bombs (as long as the illegal use of those bombs is not encouraged) is not illegal. It is difficult to see, how bypassing DRMs could be even close in importance to actual life threatening practices such as bomb building.

Also, the burden of proof has shifted. If the downloader had “reason to suspect” that the software or other digitally distributable material they downloaded was coming from an illegal source, that is enough to judge them guilty (HE 28/2004). Now the defendant must prove that they could not have known that the source was illegally distributing the DDM. An ironic twist to the new copyright law comes from the Finnish minister of culture Tanja Karpela, (the person in charge of the new copyright law) having been caught doing just the same in regard to trade mark only a few days after having passed the law (Iltalehti, 2005). She was caught having bought a copy of a Prada bag. In her own defence she said she bought it because it was so cheap and she could not have known that it was not an original Prada product. Now, this would not be an interesting case if it were not one of the publicly given reasons to be specifically careful when the price (sic!) of the DDM one is buying is too low and thus suspect that it might not come from the actual IPR holder. The justifications the minister of culture gave for her purchase were “I did not know” and “I bought it because it was so cheap”.

Arguments both pro and con long IPR protection times are largely theoretical. There is some evidence however, for both sides’ arguments as seen in the previous discussion. It is clear, that IPRs do give at least an incentive for the marketable products. It is however, questionable whether this is a *good* enough motivation for IPRs to be granted. If these faults are, as the author believes, grave enough the question of proof for the argument for the current IPRs should fall on the shoulders of those claiming a need for them instead of those criticising them, and a (Lockean) natural state should be assumed instead of the current situation. After a natural state, in which clearly no IPRs exist is assumed, a system, be it an IPR system or something else should be created based on clear proof of the benefits for all; benefits which are *good* for all, not *profitable* for some, as is the case with the current IPR systems. The current IPR system does not seem satisfy this claim, and thus the burden of proof falls to the shoulders of its proponents.

What about the duty of the people towards the creator of the immaterial? This has, after all, been a major theme especially in the continental justifications for the rights to the immaterial. A deontological view based strongly on Kant (1785) is considered due to Kant being undoubtedly the most important deontological ethical thinker (Kimppa, 2005b, 2004b). In the classic deontological argument the duty towards the creator of the immaterial is seen as paramount, and to see to it that this duty is followed, IPR laws have been seen necessary. That the creator of the immaterial deserves respect from the users of their work is not questioned by the author. But especially as of late, the duties of the creators of the immaterial towards the users of their labour have however not been seen as very relevant. The three formulations of the Categorical Imperative Kant (1785) introduces are: CI₁: “An act is morally right if and only if the agent of the act can consistently will that the generalized form of the maxim of the act be a law of nature”, CI₂: “An act is morally right if and only if the agent, in performing it, refrains from treating any person merely as a means, but always as an end in themselves”, and CI₃: “An act is morally right if and only if the agent, in performing it, follows an ethical law of nature autonomously”. There are however problems with the modifications of these relevant to the question of the creation of immaterial.

The CI₁ can be formulated in the following manner: “The (limited) monopoly rights to the immaterial are justified because everyone is treated the same in respect to their creations.” But how exactly are the IPRs limited when the protection time for copyright is 70 years from the death of the (last) author or 20 years from receiving it for the patent? In human scale when it comes to copyright? Hardly. In development time scale in either? Again, in many, if not most cases relevant today? Hardly. It is also questionable are all treated similarly. Different immaterial creations are not the same in content or in value. This creates a situation where all are not treated the same, and the modification based on CI₁ becomes questionable.

The CI₂ is typically formulated in the following manner: “Since the creator of immaterial is an end in themselves, they ought to be revered and thus granted rights to the immaterial they have created.” But it could (and in the view of the author should) equally well be formulated as: “The creator of the immaterial is allowed to (arbitrarily) exclude others from the use of the immaterial.” The latter formulation seems, intuitively clearly less appealing and fair. And that is, in effect, what the current IPR laws actually say. Any arbitrary power over others can hardly be thought to be in accordance with what Kant had in mind when writing the *Grundlegung*. It would seem that the user is here treated merely as means for the creator of the immaterial, not as an end in themselves.

The question also begs to be asked whether in the current world the owner of most intellectual property actually is the creator. In many if not in most cases, someone or even something, namely a company, else owns the immaterial. How could it even theoretically be that a *something* was to consider humans as ends in themselves? Instead of this formulation of the CI₂, the author suggests the following: “Since the creators of immaterial are ends in themselves, they ought to be compensated for their work.” Various ways to compensate the author still remain even after this formulation. Grants, payment for work done, first to market, tax compensation, even voluntary payments, but if we are to follow Kant, the main reason for compensation ought to be *from duty*.

With the CI₃ the problem arises from the law mandating, with the fear of penalty, the user to compensate the creator of the immaterial. According to Kant (1785) we at best cannot know whether an act is moral or not if it is required due to fear of force. According to Kant, we cannot know whether even an act made out of ease is moral or not. Truly ethical acts, according to Kant are always voluntary. Only in a situation where there are hurdles to overcome for the one acting we can truly be sure the act is moral. If the price the user is willing to pay to the creator of the immaterial is clearly a large amount for the user, we can know that they do it out of their consideration for their duty. This need not, of course, always be the case. The compensation, be it payment or something else, ought to be in relation to the benefits the user sees themselves getting from the immaterial work and in relation to what they can pay without causing themselves undue grief. With the current IPR system this clearly is not the case. The price can be sometimes directed towards different groups, but this is arbitrary as well. Some IPR holders do this while others do not, and in any case, people cannot be justifiably grouped as “poor students” or “poor pensioners” or with any other typically used criteria. The new distribution channels could (and to some degree do) enable the voluntary payment method. There are plentiful examples (some pointed out in Kimppa, 2005b) of voluntary payment systems which seem to enable some people to be moral, while there is clear evidence that others choose not to. In any case, many of the creators of the immaterial seem to be able to get a living through these means as well, if not collecting vast wealth.

Perhaps not surprisingly, the Free and to some degree the Open Source Software model seems to satisfy these requirements better than the current IPR system. Some variations of the Creative Commons (CC) (Lessig, 2001) system enable, although does not mandate this to works other than software and documentation. The creator of the immaterial is paid due to either a voluntary contract made by the original purchaser of the immaterial and/or by those using—or even just valuing—the immaterial product due to their sense of duty towards the creator. Of course creations falling under the F/OSS model can be sold, but the compensation is in many cases dependent on the sense of duty of the purchaser. Under the CC licensing a possibility to return to the academic ideal of freely sharing information

with others is offered. Even though the author is unaware of this particular license being used for comics, for example, a lot of comics in the Internet rely on a free license and seem to do very nicely.¹⁴ Most of the income relies on voluntary reimbursements by the readers, yet other forms of making a profit are utilised, such as selling material goods which supplement the product.¹⁵ This kind of model is increasingly possible due to the Internet. There are volumes of potential readers for a good comic and there are easy and quick ways of voluntary payment (such as PayPal or major credit cards, although there still are some difficulties which need to be ironed out with both of these methods of paying).

Instead of moving towards a 'dutiful' system the main trend seems to be towards a more enforced system¹⁶ which neither supports strengthening of these kinds of solutions nor is good for the wellbeing of the F/OSS in general. The more applications such as DVD area codes (which are not freely licensed and cannot be used in F/OSS due to legal reasons, rather than technical) the industry comes up with, the narrower the field in which F/OSS can operate successfully, and this results in less users and thus less support for the duty based approach. DMCA (DMCA, 1998), Copyright Protection Extension Act (CPEA), and their European equivalents (European copyright directive of 2001, 2001), software patent, DRMs and Trusted Computing systems are all narrowing the scope in which it is possible to act according to duty and instead force us to act according to artificial limitations, both technical and legal.

The final philosophical tradition discussed in the dissertation (Kimppa, 2006) ponders the question of a fair balance in immaterial creations. It is a fact that different cultures share different values, different ethical norms. From this of course it need not follow that relativism, as an ethical theory, would be true. But if tolerance for or even acceptance of other cultures is claimed to be one of the carrying western values, as it typically is, then tolerance towards other kinds of IPR systems is also something which ought to be considered. It seems surprising that the different ways in which IPRs are seen in other than the late western cultures have not been considered a relevant thing to consider in international negotiations in WIPO. Even though there are examples through the years (for a recent example see WIPO, 2005) in which these considerations have been brought forth, very little if anything has been accomplished through them.

Another point to consider in the context of different cultures and their different norms is how to define a culture. The current IPR system which the western

¹⁴ Ctrl-Alt-Del (<http://www.ctrlaltdel-online.com/index.php>), User Friendly (<http://www.userfriendly.org/>), Dilbert (<http://www.dilbert.com/>, to a degree), to mention a few examples of lasting series of Internet comics.

¹⁵ T-shirts, coffee cups, printed compilations of the comics etc.

¹⁶ For some counter examples to the trend, see e.g. Mylly (2005) or the recent decision of the European Parliament to abandon software patents. Unfortunately in the previous practicality rather than duty seems to be the motivating force and in the latter the wish to show the commission that the parliament cannot be forced to accept decisions made by others.

societies (most notably USA and EU countries) is trying to establish through various treaties, both bi- (or rather uni-) lateral and multilateral (such as WIPO and WTO TRIPS treaties) 1) is not generally agreed upon even within the western societies, the F/OSS movements and CC being main but not only examples, 2) is not the traditional system in other cultures, tribal, Eastern and South American cultures being again, typical, but not only examples, and 3) has not been even the western way for very long, not in this form nor length (the protection times and ways have varied greatly and still do, although homogenisation, lengthening and strengthening is the current trend).

Since various traditions in the IPRs do exist, it might be worthwhile to look into these traditions instead of offering a monoculture for all. It is after all possible that something which might enhance the benefits provided for our society might be learned from the ways other cultures handle immaterial works.

In the end, the western societies already have, in many if not most fields, very satisfactory levels of development. In the words of Kari Nyysölä (2006):

“We can speak of a wealth-society: In the Western countries the basic needs of the citizens have been taken care of and their living standard on average is at a level which does not improve enough to warrant increasing efficiency and constant growth of the economy at any cost.”¹⁷

This, however, is not the case everywhere. Were the western societies willing to take a cut-back in their even unnecessarily fast growth, i.e. growth for growth's sake, it might lead to more good for all if managed correctly. To allow those in need access to the western immaterial both as (immaterial) products to use and to develop to their needs would give the citizens of the post-industrialised states no less but would add great benefit to the people of the developing nations.

The main point of this tolerant relativist view can be summarised by noting that during the industrialisation of the current industrialised and post-industrial countries, there have been various different approaches to IPRs. The history of IPRs of the current type can be traced to an area now known as Northern Italy, to city states such as Venice and Genoa, where the first versions of both patents and copyright came to existence in the late 15th century. These were not entirely similar to the current ones. The form of patent used promoted the growth of the city states in the form of anyone introducing a new way to work or to create goods receiving the sole right to do them within the city. The “copyright” was rather for the protection of the one commissioning a work of art than for the protection of the artist. These are none the less the first in a long tradition of IPRs leading to the ones in use in the western societies today. (Kimppa, 2005c.)

¹⁷ [V]oidaan puhua ... vaurausyhteiskunnasta: Länsimaissa ihmisten perusturva ja elinolosuhteet ovat keskimäärin sillä tasolla, ettei jatkuvan talouden kasvu[n] vahvistaminen hinnalla millä hyvänsä enää tarjoa riittävää kannustetta työntöön ja tehokkuuden lisäämiseen.

To point out some main issues along the road, it suffices to say that for long periods of time, typically during the industrialisation of a country, external IPRs were not seen as something that should be included in the IPR laws of a country, if indeed any were granted at all (see e.g. Alford, 1995 or Drahos, 1996). Typical examples of this would be Netherlands or Switzerland, of which the latter faced the same kind of pressure as many improving countries are facing now, i.e. trade sanctions if they did not take IPRs into use (see e.g. Chang 2001a, 2001b). It was common practice to grant IPRs to the introducer of a new technology rather than to the inventor (Chang 2001a). Even between the western societies this was usual. For example the US did not grant copyright to European (especially British) authors until it was no longer a beneficiary of the copyright policy in 1891 (Alford, 1995; Chang, 2001a; 2001b). A similar situation was true for the “Eastern new Tigers” after the Second World War (Kimppa, 2006). The duration of IPR protection applied only within that country’s jurisdiction, and was generally for a short period if granted at all (See e.g. Pirages, 1996 or Chang, 2001a). The comparison between different times and situations is of course not without its problems. The way in which the IPRs were granted was different, but the main point is that in both cases the IPRs were weak internally in most cases and that external IPRs were either not granted or if external inventions were introduced the IPR went to the introducer, not to the inventor (see Chang, 2001a for a more detailed description).

So far none of these approaches have been even close to the current requirements of the WIPO treaties in strength, breadth or length. For example the copyright in the United States was originally 14 years in length, could be renewed once for another 14 years, needed to be specifically applied for, and was not internationally acknowledged (Lessig, 2001). If that is compared to today’s WIPO requirements of life time of the (last) author plus 70 years, automatically applied and internationally acknowledged, the sphere of public domain as well as the possibility for use or further development of copyrighted works such as software (which of course did not exist at that time), music for use or mixing, etc. has lessened dramatically.

One is left to wonder that if the systems with shorter or no IPRs were so beneficial for the countries industrialising, how—suddenly—everything has changed so dramatically that now the internationally acknowledged very strong IPRs would be the best and only solution for all? Especially for the improving countries, comparable to which these today’s post-industrial countries were when they industrialised? It is clear that if the industrialising countries, such as Japan, had not gained the current level of industrialisation, everyone would be worse off, not just the “developing” country, but also western post-industrial nations. Instead of raw material production, trade in high level goods can benefit all involved. Yet, even the poorest countries which are members of the WTO are expected to have western type IPRs in place by the end of the current year (2006).

Now, and in the recent past, there are solutions which offer a different approach. Typically these are employed by the improving countries, such as China, Brazil

(see e.g. Stallman, 2004 on how Brazil still seeks to use F/OSS as a solution instead of proprietary software, or Forester and Morrison, 1990 on how Brazil has been a leader in opposing software copyrights), or Iran. Even when the laws are (due to international pressures from either US or EU countries or organisations such as WTO) in accordance (more or less) to the international requirements, the execution of these laws differs in intensity. Examples of this include a recent case from Malaysia considering teaching its citizens more important than honouring international treaties (PCW, 2002 or infoAnarchy, 2002), or Russia's laws on what kinds of royalties must be paid for selling music in the Internet. There have of course been countries in which the IPRs have even recently seen to belong to the state, i.e. the people who make it possible for that immaterial to be created if anyone such as Soviet Russia or other countries of the former Eastern bloc. Today these groups include the F/OSS creators. Since the work, very clearly in these cases, but also in other research and development, is not done by a certain person or even a clearly defined group, the result is neither owned by anyone and at the same time by all.

Based on the relativistic view and looking into history, we should accept that different IPR legislations—or none at all—may benefit societies in different situations. Also, have the western post-industrial countries chosen the right route in the first place? Have they instead of seeing to as large amount and more importantly as good inventions as possible succumbed to the siren call of the quarterly reporting markets? Should the currently improving countries be left alone to freely choose the routes they take to get to a post-industrial stage in their development, and could imposing no outside pressures aid in this rather than hamper the development? In the final analysis, the western societies might even learn something by observing both its own history and the development given room by allowing others to find the way best suited to them instead of imposing modern day cultural imperialism on the improving, as Weckert and Al-Saggaf (2003) put it. (Kimppa, 2006.)

A moratorium in widening the impact of IPRs should be called for both for the western societies themselves and for the benefit of improving societies. An analysis should be conducted as to whether the current system serves the benefits of anyone else than the big software companies and the distributors of digital media. Money is not an end, it is a means to various ends, of which the most important is the well-being of people. Should abolishing international treaties and following a more natural route in the development of the rights to the immaterial in different countries be beneficial to all or most in question then different approaches to the current very one sided policy of imperatives may be in order. Maybe even supporting a no-IPRs policy might be called for. If history serves as a valid source for learning, having no external and some internal IPRs seems to lead to industrialisation, and that should be something to avoid instead of aiming for. Direct post-industrialisation if possible, through by-passing as much of the

industrialisation as possible, would be beneficial to all resulting in lesser pollution and greater value creation for everyone.

Opening the current IPR protected digital material would technically be simple enough. What is missing is the political will and vision to see the immediate and future benefits thus gained. This, together with an F/OSS model in use would enable the people of the countries with the least access to the immaterial to create and combine solutions which would best answer their needs. Software could be tailored to meet the local needs instead of taking into use the software available, either through purchase or through illegal copying (see e.g. the example on Malaysia previously (PCW, 2002 or infoAnarchy, 2002) which is of course only a minor clearly justified example of the rampant copying of DDM). It is good to point out, however, that even governments and prime ministers in some countries have seen the problematique—the actual software copying for the reason of not being able to afford it, yet at the same time being one of the very few ways to really educate the people. The F/OSS model has shown some promise for this. Unfortunately, F/OSS is starting to suffer from various legal measures (national or regional interpretations of the international IPR treaties (WIPO and WTO TRIPS)) (DMCA, 1998; European copyright directive of 2001, 2001) which either directly or indirectly affect writing competitive software using the F/OSS method and will eventually stifle the production instead of giving it a possibility to strengthen the local economies.

Since ICT is vital for any post-industrial state and also for industrialisation and post-industrialisation, it is clear that to follow a moral path we must put the market's interest as secondary. If the current international IPR treaties slow this development, especially the development of the standard of living in those industrialising countries, but also by hampering the by-passing of the industrial stage to more direct post-industrial stage, they must be rethought. If necessary they should be torn apart and other methods which, at least if history is any guide, must be applied.

The conclusion from the interpretations of the theories presented, the Liberal (or Libertarian) tradition, the Consequentialist (or Utilitarian) considerations it raised and their handling, the (Kantian) Deontological duties and finally the Tolerant Relativism, is that none of these theories support the IPR systems currently in place in the western societies. There are clear problems, inconsistencies, out-right misunderstandings (whether intentional or not, although the author firmly believes that in many cases they are intentional) of the underlying concepts and what can be deduced from them. The claims based on the theories which are held to be true are based on rationalisations and untestable claims. It would seem foolish of us to accept the current IPR system purely on the grounds that it is in use and that it *might* be better than no system or any 'alternative system'.

Information and Communication Technology: A Reason for Change?

While copying digital immaterial, an identical copy is made. When copying either something material or previously also when copying “immaterial” the copy is never identical (Stallman, 1994). Bits copy identically, because they are not material and are thus not dependent on the material world (even though the medium in which they are represented is always material, be it a memory chip, hard disk, screen or whatever, the *information* is identical unless a copy error happens). Also, it is clear, that since there is no question of anyone being deprived of an original product, the question of theft is never present in the copying of immaterial. This feature is of course present in other forms of copying as well, not just in the copying of DDM, but the feature is especially striking in relation to ICT. Utterances such as “stealing an idea” have in them a connotation, by adding to the claim that an idea which is created by someone is copied, that the one from whom it is copied would also be deprived of the idea. This is of course nonsense. Thus the word “steal” should not be used in the context where nothing is stolen, as Stallman (1994) points out. (Kimppa, 2004a; 2005a)

Nearly zero marginal cost (see Figure 5. on the effects of sales) from copying inherent in immaterial in the digital form (Stallman, 1992), whether in the form of end product—object code or digitally distributable media—or as source code could ensure a wide penetration for immaterial products. This of course happens with F/OSS products already. It could (and does—for the end product whether proprietary or not—through peer-to-peer networks anyway) happen for all digitally distributable media, be it software, music, movies, text or other. Unlike with most material products, artificial fences are built to stop this—such as legislation (IPRs) to DRMs and other copy protection schemes which are created to hinder the distribution of otherwise easily distributable immaterial. While for a chair to be copied, even imperfectly, large amounts of work is needed, for a product in digital form, almost no work is required. (Kimppa, 2004a; 2005a)

If the previous two properties of the immaterial in relation to ICT are accepted, i.e. that (typically) identical copying of both source and end products is easy and that it has near zero marginal costs, then the business built on that would clearly be based on work done, instead of products sold. Either through services such as helping the users (“handholding” (Free Software Foundation, 1985))¹⁸, doing modifications to existing software (Free Software Foundation, 1985) or combining existing modules to new products¹⁹ either by just integrating them and doing the necessary programming for the integration to work or by also adding new necessary modules

¹⁸ Such as the RedHat GNU/Linux service packet, <http://www.redhat.com/>

¹⁹ Such as Kolab, <http://www.kolab.org/>

for the end product through work done to someone ordering a software. (Kimppa, 2004a)

Modifiability is also one of the features specifically present in digital immaterial. The possibility to easily (easy being relative, but compared to material or proprietary) change the products to suit ones needs is inherently present in the digital immaterial. To modify e.g. a digital image only a software is needed. "Further development" (were it not for the IPR systems) of digital images is possible for anyone. The same applies to digitally distributed music, and of course software, especially if the source is distributed as well.

Especially the Free, but also the Open Source Software development embraces all these innate characteristics of the new immaterial in the digital form. Since copying is possible at near zero marginal cost and identical copies of both the end product and the source can be made easily, this is encouraged. The novelty of a product is its main "selling argument" and it can then be used for further development freely.

Wide dissemination of the digital immaterial is also inbuilt in the world of well connected communication technology. This enables fast and wide distribution of anything easily copyable and a possibility to reach a wide audience means a possibility to cash quickly with a novel idea. Thus it would seem that IPRs should become shorter and weaker instead of gaining in strength. (Kimppa, 2004a)

The possibility for digital dissemination makes adding and modifying modular software especially easy. This enables different actors in various parts of the world to modify a software to their specific needs. If the need to "reinvent the wheel" (i.e. code again things which others have already coded, but in a closed software) is removed, software which takes the local needs into account can be made with ease compared to the current situation. With F/OSS this is already done. Software modules created in Finland can be (and are) included in a compilation in India to make a localised version of the same software by the local people or to create another software which uses these modules as some parts of the whole.

Finally, all hardware needs software to function. This is inherent to the ICT artefacts we have. Even if no IPRs existed, software would exist. Mobile phones do not work without software, neither do (personal) computers nor PDA devices. Thus the hardware producer has a motivation to employ programmers even if no proprietary software existed. (Stallman, 1992.) The same of course is true of any digitally distributable media. If television channels do not get new series they do not get viewers, if music device makers do not get new music, the sales of the devices will come to a standstill, and so forth.

What instead of the current system?

First and foremost the fact that the current IPR systems do not inherently exist must be understood. The current IPR system, or for that matter *any* IPR system except a system of secrecy (and then that only for selfish reasons) is not inherently inbuilt in the immaterial. Ownership might be inbuilt in the material to some degree, but even then the method of making it typically is not something inherently owned. After all at least certain items are unusable by many at least at the same time. Like Stallman (1994) says it, only he or someone else can eat the spaghetti he cooked, not both. But the immaterial is not naturally exclusive, it does not, by nature, exclude others. Instead, the immaterial is in natural state shareable, copyable, multipliable, enriching to everyone. It is only after we build artificial fences around it that it becomes scarce—be those fences due to secrecy or due to laws, international treaties or various rights management software (as easily by-passed as these typically are).

Unfortunately, the market cannot decide which system is better (for a view in which this is seen to be the case, see Spinello, 2003b), since the current market is based on the secretive non-transparency, which produces the kind of harmful competition trying to trip the other instead of fair competition (Stallman 1992). The current IPR system favours not informing the other but keeping everything possible a secret. If one party informs and another “trips the competition” by keeping their source a secret and not letting others who have obtained access to the immaterial do with it as they wish, the ones enabling freedom to do with the immaterial as the obtainers choose will lose. If the system was truly transparent and both sides could build upon what the other has done, the novelties would decide whether one system or another would be taken into use.

If Mill’s (1861) claim for the need of desert in the immaterial is indeed valid, it needs to be conclusively shown. Even if it is shown to be true, it must be carefully scrutinised to show that the benefits are *so* significant that such basic rights as the right to do with what we have as we please can be overridden. This does not appear to be the case. There are plenty of examples for the justification of just such a move, but clearly quite as many problems with these justifications, and justifications for an opposing view. Also, even though we most assuredly need to respect the creators of the immaterial, we must also respect the rest of humanity. Everyone, not just the creators of the immaterial are ends in themselves in the Kantian analysis. To know we do morally right, we must do it voluntarily; it must not be due to our fear of punishment, or even due to such simple reason as ease of doing it (Kant, 1875). Finally, the tolerant western tradition should call for appreciation of different ways of working as long as it does not directly affect us. Having different kinds of IPR systems instead of one globally mandated (through trade sanctions, unilateral negotiations, etc.) could only indirectly affect the western countries, not directly. New ways of working might be found; new ways of

treating IPRs which could benefit all could be invented. If the history of any industrial or post-industrial countries serves as an example, other ways than the current are even needed for this to happen.

A free system based on Free Source Software model for software (Free Software Foundation, 1996a; 1996b; 2000) and the variation of Creative Commons model (Lessig, 2001, Creative Commons) used to for example this work (Attribution-ShareAlike²⁰) for other digitally distributable media could serve as a minimal system. All that is required is attribution and that no artificial fences are built to hamper others modification or use of the created immaterial. “Freedom is Law”, not “Code is Law” as Lessig (1999) puts it.

A system in which the distribution of software and other digitally distributable media

- 1) allows further distribution by either party,
- 2) allows modification of the immaterial, and to enable this,
- 3) in the case of software the source must be distributed with the software.

Such a system would encourage cooperation to create immaterial (especially but not only software) instead of all creating the same (or similar) software from scratch and further developing the software already created. It would also encourage transparent competition the gain being first-to-market in the case of devices, original design and support services in the case of software and sales through added value services (such as concerts, CDs with cover art and lyrics, physical books etc.) in the cases of other immaterial.

This would quite likely mean fewer profits, at least in the short term for the larger businesses working in the field of the immaterial distribution. It could however create a situation in which the playing field would be more level for the smaller to become meaningful players due to lower barriers for entry in various ways. Thus it would enhance the “long tail’s” possibility to become more meaningful competitors in the field (see Figure 4. below).

It would also mean less (no) IPRs to worry about when creating new immaterial, this would enable further developing and modifying software as well as selling services without licensing. It would also enable mixing of music to create new products such as “The Grey Album” (Lessig, 2004b). It would enable various productions from novels to be created without consulting the creator of the original. In sum, a lot of immaterial creations which have traditionally been the back bone of the creation of immaterial would re-emerge and not be limited by unfathomably long IPR protection.

²⁰ See Preface or Creative Commons (<http://creativecommons.org/>) for an example of an Attribution-ShareAlike licence

The smaller actors functioning in the field of the immaterial would gain while the bigger would, undoubtedly lose. The net effect could however be comparative and the distribution of the profits or, what this paper is more interested in, good, could none the less be better. Even though some utilitarian (see e.g. Feldman’s preferred U7 in Feldman, 1978, pp. 26) formulations only consider the amount (“as much good”) of good and not the distribution (“to as many as possible”), the author’s view is, that the distribution is clearly meaningful. The Figure 4 below which shows the current and proposed model’s IPR distribution is illustrative.

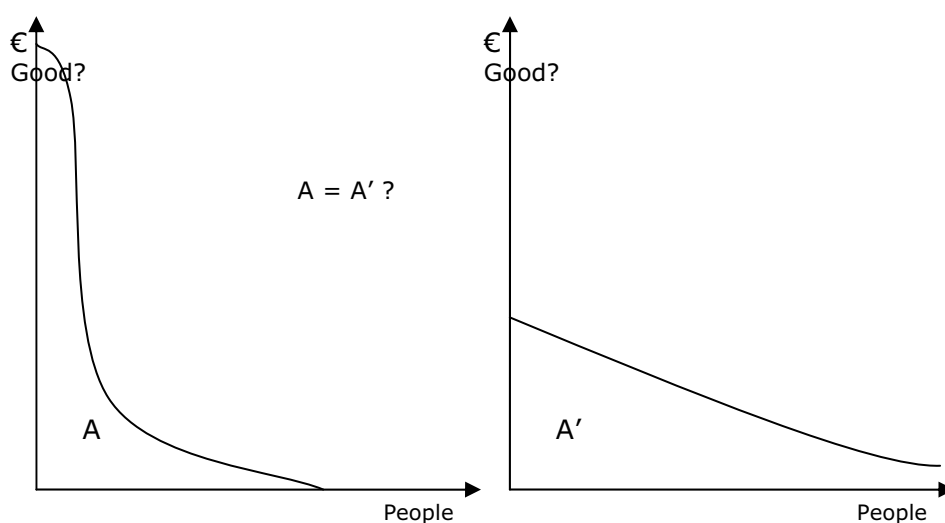


Figure 4. The distribution of rights to created immaterial currently (left) and in the proposed model (right). A and A' = immaterial “owned” through legal access.

The distribution is currently skewed so that few operating in the field hold a lot of rights to the immaterial while many hold little or no rights. The model proposed would ease the creation of immaterial for the small and make holding on to it harder for the big, but in the total could well be reasonably equal. The type of immaterial created would likely be different from what is done now; the needs and wants of the creator-user would likely be more relevant in the creation of the immaterial than the marketability, which would enhance the goodness of the immaterial for the purposes of the user, although more minor development would also likely be made. However, even now immaterial creations which can easily be considered to be negligible exist especially but not only in the field of software (or “method”) patents. A recent example would be Amazon’s patent on customer reviews or the older “one-click-shopping” patent—these can hardly be considered ground breaking. Also, most novels, music or computer games are based on a genre and oftentimes they do not really bring anything meaningfully new to the field in question. The great breakthroughs are few and far between and often come from

non-established sources and are developed mostly as ideas and the first implementation is quite often not a perfected model which would gain great sales. If the previous work (for example in the field of game engines) would be available, the actual inventor of the new ground breaking innovation could directly benefit from the new idea (such as finding something ground breakingly new in first person shooters and implementing it on top of an already established engine).

If this system would be found lacking in some areas, such as medical research (which is not quite as self-evident as it would first seem, see e.g. George, 2003 or Shiva, 2003 on biopiratism and its harmful effects), then clearly justified systems for the improvement of humanity could be put in place. Whether they would then be anything similar to the current IPR regimes, is a wholly another question. For example in the medical arena cooperation and adding ones knowledge to that of another company's drug could be far more beneficial than the current competitive practices encouraged by the patent system. Also, the current system encourages—especially in the medical field—inventions which are marketable and produce the greatest profits instead of inventions which would solve the problems the world actually faces. There must be alternative ways to the current proprietary method to invent new in any and all fields. So, even in fields traditionally seen very dependant on IPR protection the good of the people could be greater with no, or at least different IPR systems than the current ones.

Information System development and management changes

The way ISs would be developed would undoubtedly change. A return to traditional in-house development augmented with external bought or open development would likely become more typical. Some examples of this already exist under the current F/OSS system²¹. Bazaar type of development (Raymond, 2001) of (partly) existing immaterial to a greater whole through many small participants would also be a more common method.

The industry should prepare for declining profits (see Figure 5.). The first sale would need to bring the greatest profit, and thus paying for work would be important (Free Software Foundation, 1985; Stallman, 1994). It is likely that the number of times and quantities of any immaterial work that could be resold would diminish. There are however quite a few examples in which this would not necessarily mean that the immaterial would never be developed. Hardware needs software, music and books are wanted irrespective of whether they are IPR protected and thus those willing to pay would exist. The models through which the payment would be gained would of course need to be different. First to market (e.g. WAP phones) would be a viable alternative for some, as would voluntary payments for others (Such as Stephen King's novel *The Plant*, Slashdot, 2000²²).

²¹ See e.g. Kolab at <http://www.kolab.org/> or JBoss at <http://labs.jboss.com/portal/index.html?ctrl:id=page.default.default>

²² Although Stephen King has stopped distributing *The Plant* over the Internet based on voluntary payments as can be seen from his official web page at http://www.stephenking.com/pages/FAQ/Stephen_King/whereplant.php (last checked April 23, 2006).

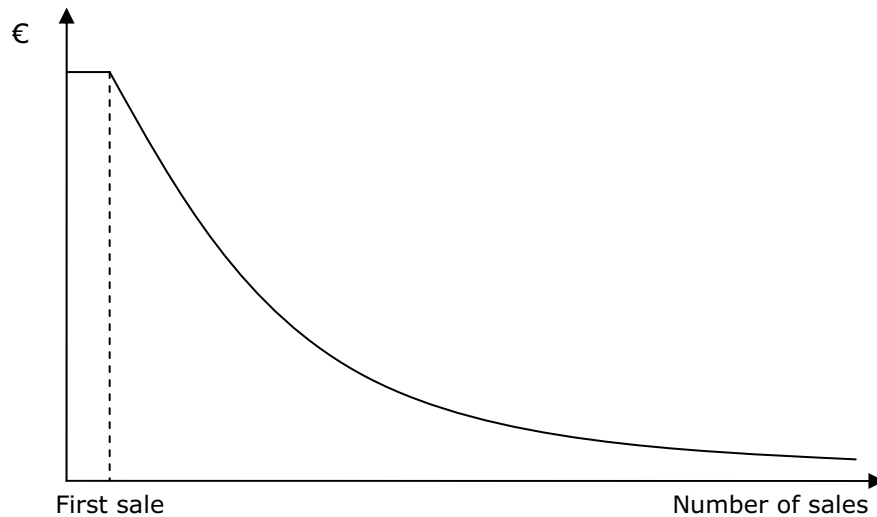


Figure 5. The new profit model for regular sales. Note: other functions that would add profit such as modifications and support are excluded.

Since the development would be open, de facto standards would appear on top of and instead of the current de jure standards together with closed systems to which the possibility of effect does not exist outside the company. The openly formed standards would be available for all and could be enhanced by anyone if the enhancement would be accepted by the public using the standardised format (creating a more practically oriented democratic-type system). If a new standard should emerge, the interoperability to old ones could be easily guaranteed by those needing it through a module translating the old to the new since the old system would be known or be available to be learned by anyone (although the interoperability to previous versions seems to be surprisingly rare at the moment in the F/OSS world). Typically the system that works best would win—as it does now in the F/OSS development—instead of one which sells purely from either a persuasive marketing campaign, or practices that prevent others entering the field.

Management of IS projects would fall more squarely within the companies needing the software. This would mean inside development for integration combined with selecting from the existing what can be integrated to the needed product. This would however mean more selection possibilities since there would be no need to take fully outside developed systems, which would translate to more choice than currently exist. This would also offer a possibility to integrate other modules than the ones offered by the proprietary company (i.e. any existing or any that are wanted and can be created either through buying from an outside supplier or through inside development). A possibility to tie IS development more firmly to the strategic goals of the company would also emerge.

If the changes proposed would be implemented in laws, IS design would return towards development for the need of the organisation instead of buying off-the-shelf or ready-made, select your modules -products, which answer every organisations or businesses strategy basically with one answer instead of supporting the actual organisational or business needs. On the other hand, to take the system in use elsewhere would mean only minimal changes should it fit the other organisations needs. This would enable more personalisation of software to actually be a supporting part of the strategies of the organisations using them. Even though the system might outwardly resemble the ready-made, select your modules approach, the difference is that any needed or wanted modules could be ordered from any supplier and thus the original software supplying organisation would have stronger incentives to answer the needs and wants of the organisations using their services for integrating the IS in a specific case. This would especially be secured through the openness of the source. Even the original modules can in an open project be studied and, if necessary, modified (as opposed to a proprietary project, where even if the interface is known, the internal working is not and cannot be changed).

The need for technically and strategically capable IT managers would increase and the need for finance capable managers would lessen, for price would not be as important as before. With the possibility to use previous modules and the need to understand these as well as the general strategy of the organisation would be more important than the capability “to make the best deal” for the software obtained. New skills in the managerial portfolio of an IS development manager would become valuable and this would likely also change the education required for the position.

Cooperation instead of competition would become a more viable option if others could access the software in any case. Thus the costs of implementing a system could be shared with others operating in the same field. This would be especially beneficial for SMEs (Small and Medium Sized Enterprises) which now are largely dependent on certain distributors for their internal software and cannot afford internal development.

Conclusions and Discussion

From the previous pages we have seen that the political philosophical justifications used for IPRs are, at the least, suspect. It seems that the traditional Liberal, Consequentialist or Deontological views do not offer as much support to the current IPR system as is typically claimed. There are of course multiple reasons for this. The advocates of the current system too often use the theoretical grounds as mere rationalisations for other, publicly more sensitive reasons such as strengthening the IPR holders' and distributors status, making the barrier of entry to the distribution or commerce higher, enabling resales of same products (in different forms), tying the customer to one product and so forth. Examples of these are abundant and have been shown through this dissertation, but a few examples justify representation. As Lessig (2001) points out, the copyright seems to lengthen almost every decade. The current copyright protected products just do not seem to ever end in the public domain. This is clearly in the interests of the current IPR holders, which practically never in these cases are the original creators of the immaterial and seldom are those who have inherited the rights through kinship, but more often are big corporations or at best (sic!) the distribution companies which get the lion's share of the profits. The longer and stronger the protection of software is, the harder it is to enter the competition. Many of the leading software houses promote stronger protection, such as software patent. It is not difficult to see why. They hold the largest patent bases and can trade with each other for the rights to use each others' patented features, while small companies attempting entry have little or nothing to trade. The length of protection for software either by copyright or patent also makes any further developing of public domain software practically impossible. It is absurd to think that Ada's "program" for calculating Bernoulli numbers would be a viable basis to any further development today, but the same holds for Commodore 64 OS or practically any common mid-80's software. The current law and second generation DRM software attempts to limit the rights of the user ever further. Traditionally it has been allowed to make a few (in which the "few" has been decided when necessary depending on the context) copies of any immaterial product one possesses. This is no longer the case. The law in most western countries already restricts taking copies of software to maximum of one back up and the DMCA (DMCA, 1998) and similar laws (e.g. European copyright directive of 2001 (2001)) forbid any bypassing of "advanced digital protections" often even for this reason. DRM software attempts to tell us how many these "few" copies are, and typically restrict the copying of digitally distributable media to far fewer copies than have traditionally been allowed.

This thesis points out that since these claims are, at best, suspect, and from many original justification points of view clearly false, there is a need to reassess the IPR protection currently in place in most western and in growing amount other countries (by the end of the current year (2006) all WTO members, even the poorest countries, must have the TRIPS protections in place or risk trade

sanctions). A first step in the right direction would be to acknowledge the faults in the justifications and try to find the actual reasons for the current IPRs and ponder whether those are just. The next step would be to accept that different nations are in different situations, and thus require different laws in regard to the immaterial. History shows us that while the current (post-)industrialised countries were in the process of industrialising, they did not have these kind of IPR systems in place. In many ways this contributed to their industrialisation. It seems like a double-standard for us to then expect the currently improving countries to accept the IPR laws now in place in the industrialised countries. The third step would be to acknowledge that were we to accept the current justifications, the ‘one-system-fits-all’ is no longer appropriate. One copyright system (with minor national modifications) just does not sustain the original—or any sane—reasonings behind the laws. A book just is not a program is not a painting is not a popular song is not a photograph is not a movie etc. This should be self evident to any stopping to think for but a moment. But even a cassette tape is not a CD is not an mp3. The laws, with their inconsistencies and the legalese they include are not understandable to the “common man”—so the argument for simplicity does not cut it. The same law for software and books is also absurd. The effective life cycle of software is a few years, in most cases less than ten years. There just is no sensible reason to protect software for *at least 70 years*, typically longer.

The fourth step is to abandon the current IPR systems all together. After this, the reasons for *a* system can, and should be brought forth and analysed rationally. Should it be evident that a system similar to the current one would best promote the creation of immaterial—and this could be justified rationally—some form of this system could then be built from bottom up. The current approach, through random twists and turns over the decades in (especially of late) a rapidly changing environment in which the laws are based on premises held true during the 18th and 19th centuries has not produced an acceptable result for the digital environment in which we live today. A *limited* property right system may have its uses, but alas, the current system, in regard to software and other DDM is, as is pointed out in this thesis, practically *not limited*.

The effects of digitalisation, with so much promise for shorter and weaker IPR laws should be taken into consideration, as should the *actual* profitable times for sales in the IPRd works and goods derived of them. The general good of the people should again be understood and taken into account; what good does it do to an AIDS patient in Nigeria that big western corporations hold the prices of medication artificially high through a “limited” monopoly? The AIDS patient will be dead before the knowledge to create the medication is public domain, so from their point of view the monopoly is eternal. The same holds true for copyright for the people. Practically nothing copyrighted during the life time of a person will ever be public domain for that person. Even should we suppose that the term of copyright protection does not lengthen—and if history is any indicator of this, it would be foolish to suppose so—the person who was expecting something protected during

their lifetime to fall into public domain would be at least 70 years old when it did; this, assuming, that the copyright holder(s) were to die directly after creating the copyrighted work. Very few of us would be able to further develop *anything* at the age of 70 and even if we were, the practical or theoretical applications of 70 years old knowledge, I fear, would for most part be impossible to create. We are living in an age of rapid development (for some, and for some things) and 70 years old works just are not worth developing in most cases. A typical example would be a dissertation in information and communication technologies, where references older than 5 years are often considered as old as to not be relevant (see the references of this work, however, for a different approach).

Three possible solutions emerge: First, as a minimum, the competing traditions ought to be left to compete on their own merits; we should not try to fit all traditions into one mould and expect that to be the only solution. It would show which models would be embraced by which societies and how these societies could attract companies to them and how these companies then would succeed; which ones of these would then create the technologically best and socially good software. Second, different kinds of immaterial need to be understood separately. What fits for software does not necessarily fit to other forms of immaterial. Books, even though readable like source code, are not software. Nor is the source at the moment revealed with the software. Same applies to music, film, pictures and paintings. They do not resemble the features of software nor do they have the same expected life span (although *some*, such as popular music or many if not most movies of today seem to come close to the same life span). The systems covering the digital distribution of books, pictures, movies, music and other digitally distributable media are clearly out of touch with the current distribution methods and times. This is exemplified by the increasingly draconian measures taken to enforce these IPRs (Stallman, 1994; DMCA, 1999; European Copyright Act of 2001, 2001, HE 28/2004). Third, since the natural situation is that there are no IPRs, there is no reason to start with any system, but rather build as and especially *if* necessary. From the natural state we can go to various directions, F/OSS or certain variants of CC being the most free of the ones available and ones which would thus ensure one central right, the right to know the whole product and thus ensure its applicability to the needs of the user.

Based on the traditions examined and the possibilities digitalisation offers—and that these are not necessarily in consistent with the current western IPR systems—it is the humble hope of the author that a more critical approach in looking at IPRs and their application could be accomplished. And should it be found that the current IPR system needs to be re-evaluated, that this re-evaluation could start from a clean slate.

References

Alford, William P. (1995), *To steal a book is an elegant offence: Intellectual property law in Chinese civilization*, Stanford, California: Stanford university press.

Bentham, Jeremy (1789), *An Introduction to the Principles of Morals and Legislation*, London, UK.

<http://www.la.utexas.edu/research/poltheory/bentham/ipml/ipml.toc.html>
(last checked April 21, 2006).

Birsch, Douglas (2003), Copying Computer Programs for Friends, The Sixth Annual Ethics and Technology Conference, June 27-28, Boston College, Chestnut Hill, MA, 61—66.

Chang, Ha-Joon (2001a), Intellectual Property Rights and Economic Development: historical lessons and emerging issues, *Journal of Human Development*, Vol. 2, No. 2, 2001, 287—309.

Chang, Ha-Joon (2001b), A background paper prepared for World Industrial Development Report of the UNIDO.

<https://www.unido.org/userfiles/hartmany/IDR-chang-draftpaper2.pdf>
(last checked April 11, 2005).

Creative Commons, Creative Commons: Enabling the legal sharing and reuse of cultural, educational, and scientific works. <http://creativecommons.org/> (last checked August 25, 2006).

DMCA (1998), The Digital Millennium Copyright Act.

<http://www.gseis.ucla.edu/iclp/dmca1.htm> (last checked February 15, 2004).

Drahos, Peter (1996), *A Philosophy of Intellectual Property*, Dartmouth Publishing, Aldershot, UK.

European copyright directive of 2001 (2001).

<http://europa.eu.int/cgi-bin/eur-lex/udl.pl?REQUEST=Seek-Deliver&COLLECTION=oj&SERVICE=all&LANGUAGE=en&DOCID=20011167p0010>
(last checked February 15, 2004).

Fading Way Records (2006), Brief / Written Comments on Broadcasting Notice of Public Hearing CRTC 2006-1.

http://support.crtc.gc.ca/applicant/docs.aspx?pn_ph_no=2006-1&call_id=29640&lang=E&defaultName=Fading%20Ways%20Records%20Ltd
(last checked April 21, 2006).

Feldman, Fred (1978), *Introductory Ethics*, Prentice-Hall Inc., Upper Saddle River, New Jersey, USA.

Forester, Tom and Perry Morrison (1990), *Computer Ethics: Cautionary Tales and Ethical Dilemmas in Computing*, Basil Blackwell Ltd, Oxford, UK.

Free Software Foundation (1985), The Gnu Manifesto.
<http://www.gnu.org/gnu/manifesto.html> (last checked August 25, 2006).

Free Software Foundation (1996a), GNU's Not Unix! - Free Software, Free Society: The GNU Operating System - Free as in Freedom.
<http://www.gnu.org/> (last checked August 25, 2006).

Free Software Foundation (1996b), Philosophy of the GNU Project.
<http://www.gnu.org/philosophy/philosophy.html> (last checked August 25, 2006).

Free Software Foundation (1996c), Selling Free Software.
<http://www.gnu.org/philosophy/selling.html> (last checked August 25, 2006).

Free Software Foundation (2000), FSF/UNESCO Free Software Directory.
<http://directory.fsf.org/> (last checked August 25, 2006).

George, Susan (2003), Maailmankauppajärjestö kuriin (originally printed in 2001, Remettre l'OMC à sa place), Gummerus Kirjapaino Oy, Jyväskylä, Finland.

Grove, Jeff (2003), Legal and Technological Efforts to Lock Up Content Threaten Innovation, *Communications of the ACM*, Vol. 46, No. 4: 21—22, April 2003.

Haarmann, Pirkko-Liisa (2001), *Immateriaalioikeuden oppikirja*, Kauppakaari, Lakimiesliiton Kustannus, Helsinki, Finland.

HE 28/2004 (2004), Hallituksen esitys Eduskunnalle laeiksi tekijänoikeuslain ja rikoslain 49 luvun muuttamisesta.
<http://www.eduskunta.fi/triphome/bin/vepshref.scr?{KEY}=HE+28/2004&{ID}=HE+28/2004&{EXTRA}=TUNNUS> (last checked April 22, 2006).

Hettinger, Edwin C. (1989), Justifying Intellectual Property. *Philosophy & Public Affairs*, 18 (1), 31—52.

Hughes, Justin (1988), *The Philosophy of Intellectual Property*. Available at <http://cyber.law.harvard.edu/bridge/Philosophy/88hugh4.txt.htm> (last checked January 4, 2007).

Human Development Report (2005), *Human Development Report: International cooperation at crossroads, Aid, trade and security in an unequal world*. <http://hdr.undp.org/reports/global/2005/> (last checked August 25, 2006).

Hume, David (1751), *An Enquiry Concerning Human Understanding*. Harvard Classics Volume 37 Copyright 1910 P.F. Collier & Son. <http://eserver.org/18th/hume-enquiry.html> (last checked November 29, 2005).

infoAnarchy (2002), *Malaysia May Ignore Copyright Law*. <http://www.infoanarchy.org/comments/2002/7/28/23152/1891/0/post> (last checked April 22, 2006), originally reported by The Star at <http://thestar.com.my/news/story.asp?file=/2002/7/28/nation/jhsoftwar&sec=nation> (not available).

Iltalehti (2005), *Sehän on piraattikassi!* Iltalehti, 20.10.2005, p. 6.

Johnson, Deborah G. (1994), *Computer Ethics* (2nd ed), Prentice-Hall, Inc., Upper Saddle River, New Jersey, USA.

Johnson, Deborah G. (2001), *Computer Ethics* (3rd ed), Prentice-Hall, Inc., Upper Saddle River, New Jersey, USA.

Kant, Immanuel (1785), Originally *Grundlegung zur Metaphysik der Sitten*, several translations used, most commonly translated as *Groundwork of the Metaphysics of Morals* as in <http://www.swan.ac.uk/poli/texts/kant/kantc.htm>, (last checked November 4, 2004), but e.g. Brendan E. A. Liddell's (1970) translation *Kant on the Foundation of Morality*, Indiana Univeristy Press, US, also used.

Kimppa, Kai K. (2004a), *Consequentialist Considerations of Intellectual Property Rights in Software and other Digitally Distributable Media*, Ethicomp 2004, University of the Aegean, Syros, Greece, 14 to 16 April 2004.

Kimppa, Kai K. (2004b) *Intellectual Property Rights – or Rights to the Immaterial – in Digitally Distributable Media Gone All Wrong?* In Lee Freeman and Graham Peace (eds.), *Information Ethics: Privacy and Intellectual Property*, Idea Group Publishing, Hershey, PA, USA.

Kimppa, Kai K. (2004c) Redistribution of Power from Government to Intellectual Property Rights Owners and Organizations Looking After Their Interests: Justifiable from a Liberalist Position? – The Free Software Foundations Position Compared to John Locke's Concept of Distributable Rights, Second Summer School by IFIP WG 9.2, 9.6/11.7, 9.8, Risks and Challenges of the Network Society. 4-8 August 2003, Karlstad University, Sweden, in Penny Duquenois, Simone Fishcer-Hübner, Jan Holvast & Albin Zuccato (eds.) Risks and Challenges of the Network Society, Karlstad University Press, Karlstad, Sweden.

Kimppa, Kai K. (2005a), Intellectual Property Rights in Software – Justifiable from a Liberalist Position? Free Software Foundation's Position in Comparison to John Locke's Concept of Property, in Richard A. Spinello & Herman T. Tavani (eds.) Intellectual Property Rights in a Networked World: Theory and Practice, Idea Group Inc., Hershey, PA, USA.

Kimppa, Kai K. (2005b), Kantian Duty Ethics Compared with Current Intellectual Property Rights Laws, Computer Ethics, Philosophical Enquiry 2005, University of Twente, Enschede, The Netherlands, July 17-19, 2005.

Kimppa, Kai K. (2005c), Kamppailuja tekijänoikeuden luonteesta: Immateriaalioikeuksien historiaa ja oikeutettavuutta läpi aikojen, in All Rights Reserved, ViNO. Also available at <http://www.vino.fi/allrightsreserved/> (last checked April 22, 2006).

Kimppa, Kai K. (2006), Socially Responsible International Intellectual Property Rights in Software and Other Digitally Distributable Material, IFIP WG 9.2 Conference on Landscapes of ICT and Social Accountability, University of Turku, Finland, June 27-29, 2005. in Chris Zielinski, Penny Duquenois and Kai Kimppa, (eds.) The Information society: Emerging Landscapes, IFIP International Federation for Information Processing, a Springer Series in Computer Science, Springer Science+Business Media, Inc, New York, USA.

Koski, Timo (2004), Could I copy to a friend - by whose permission? Seventh Annual Ethics and Technology Conference, June 25-26, 2004, Loyola University, Chicago, US. <http://www.ethicstechconference.org/papers/> (last checked April 22, 2006).

Leppämäki, Laura (2006), *Tekijänoikeuden oikeuttaminen*, Jyväskylä University Printing House, Jyväskylä, Finland.

Lessig, Lawrence (1999), *Code and Other Laws of Cyberspace*, Basic Books, New York, USA.

Lessig, Lawrence (2001), *The Future of Ideas: The Fate of the Commons in a Connected World*, Vintage Books, New York, USA.

Lessig, Lawrence (2004a), *Free Culture*, The Penguin Press, New York, USA.

Lessig, Lawrence (2004b), The Black and White about Grey Tuesday.
<http://www.lessig.org/blog/archives/001754.shtml> (last checked August 25, 2006).

Locke, John (1690), *Two Treatises of Government*, various versions used, e.g. Everyman, Orion Publishing Group, London, UK (2002). *Second Treatise of Government* also available for example at
<http://www.swan.ac.uk/poli/texts/locke/lockcont.htm> (last checked January 10, 2003) or at <http://www.earlymoderntexts.com/pdf/locke2tr.pdf> (last checked August 24, 2006).

Long, Roderick T. (1995), *The Libertarian Case Against Intellectual Property Rights*, Formulations, Autumn 1995, Libertarian Nation Foundation. Also available at
<http://libertariannation.org/a/f3111.html> (last checked January 9, 2006).

Maslow, Abraham (1943), *A Theory of Human Motivation*, originally published in *Psychological Review*, 50, 370—396, also available at
<http://psychclassics.yorku.ca/Maslow/motivation.htm> (last checked April 21, 2006).

Mill, John Stuart (1861), *Utilitarianism*, various versions used. Available at:
<http://www.utilitarianism.com/mill1.htm>, (last checked December 9, 2005), but e.g. *Utilitarianismi*, Gaudeamus Kirja. Oy Yliopistokustannus, University Press Finland (2000) also used.

Moore, Adam D. (1998), *Intangible Property: Privacy, Power, and Information Control*, *American Philosophical Quarterly*, 35 (4), 365—375.

Mylly, Ulla-Maija (2005), *Tietokoneohjelmien rajapintojen tekijänoikeussuoja*, *Lakimies* 5/2005, 746—767.

Nyyssölä, Kari (2006), *Kriisi ja sosiaalinen pääoma hyvinvointivaltiossa*, *Tieteessä tapahtuu*, 1:2006, 5—9.

Ollila, Maija-Riitta. (2005) An interview in television programme “Punainen lanka”, Yle 2, Tuesday, November 22, 2005.

PCW (2002), *Today's lesson is pirate software*, *Personal Computer World*, 29 Jul 2002. <http://www.pcw.co.uk/vnunet/news/2119616/today-lesson-pirate-software> (last checked February 22, 2006).

Pike, George H. (2004), *New International IP Laws on the Horizon*, *Information Today*, January 2004, Vol. 21 Issue 1, p17, 2p.

Pirages, Dennis (1996), Intellectual Property in a Post Industrial World, Science Communication, Vol. 17, No. 3, March 1996, pp. 267—273.

Raymond, Eric S. (2001), *The Cathedral & The Bazaar*, O'Reilly, UK.

Schroeder, Jeanne L. (2004), Unnatural Rights: Hegel and Intellectual Property, Social Science Research Network, <http://ssrn.com/abstract=518182> (last checked January 4, 2007).

Shiva, Vandana (2003), Voiko tietoa omistaa? Patentit kehityksmaiden uhkana (originally printed 2001, Protect or Plunder? Understanding Intellectual Property Rights), Dark Oy, Vantaa.

Slashdot (2000), Stephen King's Net Horror Story, December 04, 2000. <http://slashdot.org/features/00/11/30/1238204.shtml> (last checked April 23, 2006).

Spinello, Richard A. (1995), *Ethical Aspects of Information Technology*, Prentice-Hall, Inc., Upper Saddle River, New Jersey, US.

Spinello, Richard A. (2003a), The future of intellectual property, Ethics and Information Technology, **5**: 1—16.

Spinello, Richard A. (2003b), The Future of Open Source Software: Let the Market Decide, Journal of Information, Communication & Ethics in Society, Volume 1, Issue 4, 217—233, October 2003.

Stallman, Richard (1992), Why Software Should Be Free. <http://www.gnu.org/philosophy/shouldbefree.html> (last checked January 13, 2003).

Stallman, Richard (1994), Why Software Should Not Have Owners. <http://www.gnu.org/philosophy/why-free.html> (last checked April 23, 2006).

Stallman, Richard (1996), Reevaluating Copyright: The Public Must Prevail, Oregon Law Review, Spring 1996, also available at <http://www.gnu.org/philosophy/reevaluating-copyright.html> (last checked August 25, 2006).

Stallman, Richard (2004), World Summit on the Information Society, originally published on Newsforge, also available at <http://www.gnu.org/philosophy/wsis.html> (last checked February 27, 2005).

Tekijänoikeuslaki, Teknisen toimenpiteen kiertämiskeinojen valmistamisen ja levittämisen kielto 50 b § (14.10.2005/821). <http://www.finlex.fi/fi/laki/ajantasa/1961/19610404?search%5Btype%5D=pika&search%5Bpika%5D=tekij%C3%A4noikeuslaki> (last checked April 22, 2006).

Toner, Christopher (2005), Just War and the Supreme Emergency Exemption, *The Philosophical Quarterly*, Vol. 55, No. 221, October 2005, 545—561.

Toole, Betty (1995), Ada Byron, Lady Lovelace, *Biographies of Women Mathematicians Web Site* (Larry Riddle, ed.).
<http://www.agnesscott.edu/lriddle/women/love.htm> (last checked November 29, 2005).

Weckert, John, and Douglas Adeney (1997), *Computer and Information Ethics*, Greenwood Publishing Group, Westport, CT, USA.

Weckert, John and Yeslam Al-Saggaf (2003), Online Cultural Imperialism: Is it an Ethical Issue? *Information, Communication & Ethics in Society*, Vol 1, Issue 1, 21—29, Jan 2003.

WIPO (2005), Proposal to establish a development agenda for WIPO: an elaboration of issues raised in document WO/GA/31/11, Inter-sessional intergovernmental meeting on a development agenda for WIPO, First Session, Geneva, April 11 to 13, 2005.
http://www.wipo.int/edocs/mdocs/mdocs/en/iim_1/iim_1_4.pdf (last checked May 4, 2005).

Women in Science, Ada Byron, Countess of Lovelace: Analyst, Metaphysician, and Founder of Scientific Computing.
<http://www.sdsc.edu/ScienceWomen/lovelace.html> (last checked November 29, 2005).

Part II
The Original Articles

Paper I

Kimppa, Kai K. (2005), Intellectual Property Rights in Software—Justifiable from a Liberalist Position? The Free Software Foundations Position in Comparison to John Locke's Concept of Property. In Richard A. Spinello and Herman T. Tavani (eds.), *Intellectual Property Rights in a Networked World: Theory and Practice*, Idea Group Publishing, Hershey, PA, USA. Originally published in *The Sixth Annual Ethics and Technology Conference, Intellectual Property Rights in a Networked World*, pp. 143-152, Boston College, June 27-28, 2003.

Original available from publisher.

Paper II

Kimppa, Kai K. (2004), Redistribution of Power from Government to Intellectual Property Rights Owners and Organizations Looking After Their Interests: Justifiable from a Liberalist Position? – The Free Software Foundations Position Compared to John Locke's Concept of Distributable Rights. Second Summer School by IFIP WG 9.2, 9.6/11.7, 9.8, in Penny Duquenoy, Simone Fischer-Hübner, Jan Holvast & Albin Zuccato (eds.) Risks and Challenges of the Network Society. 4-8 August 2003, Karlstad University, Sweden.

Redistribution of Power from Government to Intellectual Property Rights Owners and Organizations Looking After Their Interests: Justifiable from a Liberalist Position? – The Free Software Foundations Position Compared to John Locke's Concept of Distributable Rights

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Abstract. John Locke's Two Treatises of Government and especially The Second Treatise of Government can be seen as the starting point of liberalist thinking in distribution of power and the concept of property, be it material or immaterial. This paper offers a new view on what rights in intellectual property can be redistributed from the people to the government and organizations and from the government to organizations – and especially which cannot if one is consistently liberalist in the Lockean sense. In this paper will be shown how the redistribution of people's rights to the immaterial can not be based on Locke and how that in fact fits with the Free Software Foundations (FSF) view to the immaterial. An alternative will be introduced – an alternative, that closely follows the FSF's position – and how the GNU (GNU's Not Unix) General Public License and copyleft are the tools to this end.

Of Joining Commonwealths

The reason for people to join in communities according to Locke [1] is the benefit they gain from that.

"Political power, then, I take to be a right of making laws, with penalties of death, and consequently all less penalties for the regulating and *preserving of property*, and of employing the force of the community in the execution of such laws, and in the defence of the commonwealth from foreign injury, and *all this only for the public good.*" [1, §3, emphasis mine.]

One has a right to the preservation of ones property, that is, ones life, liberty and estate. But people may join in a commonwealth and give their power over to its legislative for it to further their needs i.e. to see to the preservation of their property. And the legislative then, is supposed to better the condition of the people joining in the commonwealth, for if one would join in a society which would worsen ones condition, it would be absurd. Thus it can be seen, that the aim of the commonwealth is the preservation of society and every person in it. [1] Should it be, that intellectual property rights (IPR's) do not enhance the condition of those joining the commonwealth, but instead were not property rights at all, and thus would not necessarily enhance the preservation of the life, liberty and estate of the people, they ought to be reconsidered as rights.

Of Intellectual Property

IPR's, as pointed out by Kimppa [2], are not property rights at all but privileges to the immaterial for the potential benefit of the commonwealth and the people in it (see also e.g. [3], [4] and [5]). According to Kimppa [2] Locke saw property as something which the property owner had full rights to. Something, with which the property owner could do as they wished, whether they wanted to keep it, sell it, trade it or give it away as a gift. Locke was worried about others having arbitrary power over ones property, thus possibly loosing it and that is why he saw property rights as necessary. Labour was Locke's way of showing how property rights were attained (see e.g. [5] and [6]), but the reason for property rights is not labour, as is often misunderstood, but scarcity. The immaterial is in no way away from one if shared with another, but instead all parties can use it at the same time. Whether rediscovered, reinvented, recreated or just copied from another, the other still has the possibility to use theirs. Thus the immaterial can not be said to be scarce – at least in the same sense as the material. [2]

IPR's are a form of method, a way to express an idea, an idea in themselves – not something concrete like a copy of a CD, a book or a car. There are plentiful examples in Locke, where someone uses a method to acquire property. In none of these examples, however, it is supposed that the method itself would be owned by the person using it. Instead, it is thought to be common to use the same method for either the same or similar purpose. Thus the right to ones labour does not apply to methods of work and the method can not be said to be of oneself. Instead of the limited commons so apparent in the material realm, the immaterial commons is unlimited. When there is a question of whether as much and as good can be left to another, it is clearly evident, that in the material commons this is not the case, at least after the population of people reaches certain limits (which we seem to have crossed). In the immaterial this is however not a problem. According to Kimppa [2] this has traditionally been seen falsely due to the immaterial being infinite, it has been thought, that as much and as good is left in any case. The as much is easily proven; if one takes away from infinite any finite number of things, there still is infinite number of things left. The as good is another case all together. Some

inventions or discoveries are better for some things than others, thus the as good does not necessarily fulfill. However, there are no grounds in the infinite immaterial to grant even limited monopolies due to deprivation, since there is none. No one is deprived of the things they have in the immaterial even if another shares the same immaterial. Thus the only recourse to granting limited monopolies – be they in the form of patent or copyright – to the methods, ideas or their expressions are given to further the benefits of society, *not* because they are things that can be owned, i.e. property.

Were these privileges contradictory to the aims of the persons joining in commonwealth i.e. lessen their possibility to see to the preservation of their property, they ought not to be granted. To clarify the difference between property and the immaterial, Long [3] has an example:

"Suppose you are trapped at the bottom of a ravine. Sabre-tooth tigers are approaching hungrily. Your only hope is to quickly construct a levitation device I've recently invented. You know how it works, because you attended a public lecture I gave on the topic. And it's easy to construct, quite rapidly, out of materials you see lying around in the ravine.

But there's a problem. I've patented my levitation device. I own it — not just the individual model I built, but the universal. Thus, you can't construct your means of escape without using my property. And I, mean old skinflint that I am, refuse to give my permission. And so the tigers dine well." [3]

The example itself is of course an extreme one. The argument embedded in it, however, stands. One ought to be able to do with ones possessions as one pleases independent of others' IPR's (or in this sense, privileges).

Of Transferable Rights

One can not transfer to another, be it a person or a collective of persons, such as the legislative of a commonwealth, more power than one has. And since one does not have an absolute arbitrary power over oneself, or over any other, but instead one can not destroy or take away the life or the right to property of oneself or another, one can not give an absolute arbitrary power over oneself or ones property to the commonwealth. The power distributed to the legislative has one goal and one goal only, namely the preservation of the members of the commonwealth; that including life, liberty and estate, which are possessions of the members of the commonwealth, and thus the legislative has no right to impoverish its members, for it would be counter to the idea of men joining in the commonwealth. The law of nature, which means the preservation of oneself, one's freedom and ones property, stands as an eternal rule to all members of a commonwealth, be they subjects or legislators. The legislators must not pass laws which take any of these away from

the members of the commonwealth. [1] And thus, if one is consistently Lockean in ones liberalism, the legislative of the commonwealth can not pass a law which would give an absolute arbitrary power over ones possessions for it would be absurd for men to join in such commonwealth in which they have less than they had in the state of nature. This is exactly what the legislatives of commonwealths have done when it comes to the immaterial. For after appropriating a piece of software or of digital media or any object one has possession of the appropriated thing. Thus one ought to have, by natural law, control over it over any other, even the creator of it let alone a distributing organization.

“It cannot be supposed that they [men joining the commonwealth] should intend, *had they a power so to do*, to give any one or more an *absolute arbitrary power* over their persons and *estates*, and put a force into the magistrate's hand to execute his unlimited will arbitrarily upon them; this were to put themselves into a worse condition than the state of Nature[.]”
[1, §137, emphasis mine]

Now, the situation may have been, and may still be when considering material goods, that patents and copyrights have been useful for the public in aiding the distribution of innovations, books, works of music and other artworks. The introduction of means of digital distribution has changed the rules in such a manner, that it is questionable whether this holds true any more. [7]

"The case of programs today is very different from that of books a hundred years ago. The fact that the easiest way to copy a program is from one neighbor to another, the fact that a program has both source code and object code which are distinct, and the fact that a program is used rather than read and enjoyed, combine to create a situation in which a person who enforces a copyright is harming society as a whole both materially and spiritually; in which a person should not do so regardless of whether the law enables him to." [7]

Due to IPR's being privileges to the immaterial rather than rights at all, people are starting to question the rights holders' justifications. This is noticeable by the rights holders trying to propose more and more draconian measures to uphold their privileges. [8]

"Digital technology is more flexible than the printing press: when information has digital form, you can easily copy it to share it with others. This very flexibility makes a bad fit with a system like copyright. That's the reason for the increasingly nasty and draconian measures now used to enforce software copyright." [8]

Examples of these new draconian measures can be found in e.g. the digital millennium copyright act, in its European counterpart, in companies trying to

extend their grasp of copyright to include such forms of copying which have traditionally been outside the scope of copyright. A model example of the last is the law passed in Finland, according to which copying of software (copyright protected) to ones own personal use and the use of ones closest persons is forbidden, even though it has been legal to do so for all copyrighted material before.

According to Locke [1] however, these kinds of privileges, when they do not benefit the participants of the society, can not be given. The rights of the commonwealth to govern over its participants do not give it a right to further distribute abilities to pass laws from the legislative to outside parties. The previous would give outside parties arbitrary power over the commonwealth's citizen's life, liberty or estates. The way the IPR holders – through lobbying [9], unilateral negotiations with foreign powers, and by attempting to upkeep their privileges even though they do not benefit the society – are trying to affect the legislative is against the interests of the people and thus their privileges ought to be revoked.

On top of attempting to hold on to privileges which are not beneficial for the participants of the commonwealth, the immaterial privilege holders extend their grasp to tax-like payments from the public. International organizations such as CISAC and WIPO are – through negotiations with national organizations – extending the grasp of IPR holders. Examples from Finland include organizations like Teosto, Gramex, Kuvasto and Kopiosto, which all attempt to limit what persons, organizations and companies can do with their property. Similar organizations are working around at least the western world. They collect tax-like payments, from playing music in restaurants to buying empty CD's, yet these tax-like payments are not used for the society's benefit, as they according to Locke [1] ought to be.

“[F]or if any one shall claim a power to lay and levy taxes on the people by his own authority, and without such consent of the people, he thereby invades the fundamental law of property, and subverts the end of government. For what property have I in that which another may by right take when he pleases to himself?” [1, §140]

Were it so, that the payments they collect would be collected for the use of the commonwealth, there would not necessarily be a problem. Alas, it is collected for the IPR holders, who are not part of the legislative nor answer to it.

Of Alternative Solutions

The main reason for the need for an alternative approach is that if the current property approach to IPR's is wrong, IPR's ought then be considered privileges. And if they are considered privileges, the commonwealth can not transfer rights to them to the IPR holders unless these IPR's do not risk the publics' right to their property (which is a basic, natural right). This is clearly the case, thus giving

arbitrary power over ones life, liberty and estate to the hands of third parties, which is unjust. If it can be proven, that giving IPR's to third parties improves the condition of the people joining commonwealths (for that is the purpose of joining commonwealths), it can be argued that privileges to IPR's are justifiable. This is a widely accepted truism, whether true, is another question. In any case, it is a consequentialist, rather than purely liberalist argument, and is not the argument this article tries to clarify and prove false (for an extended handling of this problem see [10]).

If we accept the notion presented in this paper, that IPR's are not a form of property, but rather a form of privilege and if they do not benefit the society at large, especially when it comes to digitally distributable media (which does not suffer the limitations of material property as it can be copied easily and is, in the case of software rather a method than a thing to be owned [2]) or limit the possibility of the public to use what they have, the FSF [11] and Stallman [12] offer a different view on how to handle the distribution of such material. Instead of giving IPR holders 'limited' monopoly, they could be paid to produce the immaterial, i.e. those in need of software would contact a party willing to produce what they need and pay for the production. Deals about help services and further development could of course also be made on top of the original delivery, but the software itself, after completion, would enjoy no artificial protection.

Stallman [13] seems to agree with the interpretation offered from Locke, that people should be able to decide what they do with their possessions without the interference from an outside party. The main reason for this – as I have shown based on Locke [2] – is that software is different from material objects in that it can be copied and reproduced as wished and is not away from another like a material object would be, if it was taken from another [14]. If what can be done with a program is controlled by an IPR's holder, that would limit the rights of the person having the software to do with it as they please [8]. To be able to fully use the code one has, one must be in control of the code one possesses. This kind of control given to an elite few would not be in the interests of the general public. [15]

According to Stallman [9] computers and networks (mainly Internet, but other networks as well) offered a new way to distribute information. Copying and manipulating information, be it software, books or music, became simple. This raised hopes among the early adopters of the medium that the need for restrictive practices (based largely on the necessity of a distribution channel to deliver the music and text formerly in a material form) could come to an end. Unfortunately, and now unnecessarily, copyright extended its grasp also to this new medium. The reason for granting copyright and thus limiting the rights of the people in the society – to spread physical copies of music and texts – had disappeared. The world had changed, but the law had not. Surprisingly, when the new circumstances came about, the law did not relax, as was expected; it tightened. Under the new situation, the old rights of the user were restricted even further. No longer was it allowed to make copies of copyright protected media and distribute these amongst friends in the new format. The new medium could be used also to restrict users, by for example creating e-books which can be locked so that even the previously

allowed copying is now impossible, and were there ways around it, it has been seen to that these ways have been blocked by the DMCA [16] and hampered by its European counterpart. The reason for so little commotion about these apparent restrictions in our rights to handle what we have purchased is, according to Stallman [9], that the rise of electronic publishing is yet to come. Stallman hopes, that this will change once the general public becomes aware of the new, more restricted situation. I fear for a different outcome. As we are entering the new regime of IPR's, 'make believe laws' [17] are being put forth in the traditional media and the new medium to make us believe, that copying to our friends is illegal, that when it actually becomes so, we have already accepted it as a truism, which can not be changed.

Publishing in the net should be encouraged especially in the field of scholarly papers for it helps to make the works of the scientists more available for the public [9 and 11]. Text books should also be published in the net, for it would encourage learning. They should be available for modification to encourage improvement. [9] The same – according to Stallman holds true for software. When paying over the net becomes possible, it is easy enough to add 'pay a dollar to the author' button on the page, to make mandatory payments obsolete. If the publication, be it a book, music or software, is liked enough, people are bound to pay – a dollar is not much from one, but it becomes so when paid by many. [9] To this, it is easy to say as counter that this all seems fine and good, but can people actually make a living this way. Stallman himself – amongst many other free and open source software writers – is an excellent example on that it can be done. If one tries to claim, that free and open source software is not viable as a marketed good, one can look at Red Hat and other free and open source software companies listed at Wallstreet.

Conclusions

If one has gained possession of software or digitally distributable media through trade, gift or purchase one ought to be able to use, modify and redistribute it without external restrictions. IPR's in software and digitally distributable media give arbitrary power to control ones possessions by an outside party, which is not justifiable either by Locke or Stallman and Free Software Foundation. The proposed system would result in a very different world when it comes to IPR's in general, but especially in IPR's in software and digitally distributable media. That world, however, needs not be in opposition to market economy as the opposition would claim; it would just mean, that more small inventions would be made and that making riches with programming would not necessarily be quite as easy. Free Software Foundation [11] actually encourages people to do just that, to sell software. What they do not encourage is keeping the rights to modify and reproduce as IPR holders' exclusive right. What is meant by this is “distributing free software for a fee” [11] (“free” as in “free speech”, not as in “free beer” [18]).

“Strictly speaking, “selling” means trading goods for money. Selling a copy of a free program is legitimate, and we encourage it. [...] You can charge nothing, a penny, a dollar, or a billion dollars. It's up to you, and the marketplace, so don't complain to us if nobody wants to pay a billion dollars for a copy.” [11]

So charging for software – according to the view proposed by FSF and my interpretation of Locke – is quite fine with the exception that the source must be distributed with the copy or must be made available for the purchaser with no additional cost.

References

1. Locke, John. (2002) Two treatises of government. Originally published in 1690, various publishers used. Everyman, Orion Publishing Group, London, UK. Second Treatise of Government available for example at <http://www.swan.ac.uk/poli/texts/locke/lockcont.htm> (Last checked August 29, 2003).
2. Kimppa, Kai. (2003) Intellectual Property Rights in Software: Justifiable from a Liberalist Position? – The Free Software Foundation's Position in Comparison to John Locke's Concept of Property. Sixth Annual Ethics and Technology Conference, Boston College, Boston, USA, June 27-28, 2003.
3. Long, Roderick T. (1995) The Libertarian Case Against Intellectual Property Rights. *Formulations*, Autumn 1995. Libertarian Nation Foundation. Also available at: <http://www.libertariannation.org/a/f3111.html> (last checked August 29, 2003). NOTE: in the URL above, the sequence of "111" is actually "one", "letter 'L' in lower case", and "one".
4. Free Software Foundation. (1998) Reevaluating Copyright: The Public Must Prevail. <http://www.gnu.org/philosophy/reevaluating-copyright.html> (last checked August 29, 2003).
5. Kinsella, N. Stephan. (2001) Against Intellectual Property. *Journal of Libertarian Studies*, Vol 15, no. 2 (Spring 2001):1-53, Ludwig von Mises Institute. http://www.mises.org/journals/jls/15_2/15_2_1.pdf (Last checked August 29, 2003).
6. Simmons, A. John. (1992) The Lockean Theory of Rights. Princeton University Press, Princeton New Jersey, US.
7. Free Software Foundation. (1993) The Gnu Manifesto. <http://www.gnu.org/gnu/manifesto.html> (last checked August 29, 2003).
8. Stallman, Richard. (1994) Why Software Should Not Have Owners. <http://www.gnu.org/philosophy/why-free.html> (last checked August 29, 2003).
9. Stallman, Richard. (2000) Freedom-Or Copyright? <http://www.gnu.org/philosophy/freedom-or-copyright.html> (last checked August 29, 2003).

10. Kimppa, Kai. (2004) Consequentialist Considerations of Intellectual Property Rights in Software and other Digitally Distributable Media. To be presented in Ethicomp 2004, Syros, Greece, April 14-16, 2004.
11. Free Software Foundation. (1996) Selling Free Software. <http://www.gnu.org/philosophy/selling.html> (last checked August 29, 2003).
12. Stallman, Richard. (2001) Science must 'push copyright aside' in *Nature webdebates*. <http://www.nature.com/nature/debates/e-access/Articles/stallman.html> (last checked August 29, 2003).
13. Stallman, Richard. (1992) Why Software Should Be Free. <http://www.gnu.org/philosophy/shouldbefree.html> (last checked August 29, 2003).
14. Free Software Foundation (2001) Philosophy of the GNU Project. <http://www.gnu.org/philosophy/> (last checked August 29, 2003).
15. Kuhn, Bradley M. & Richard M. Stallman. (2001) Freedom or Power? <http://www.gnu.org/philosophy/freedom-or-power.html> (last checked August 29, 2003).
16. Lipinski, Tomas A. and David A. Rice. (2002) Organizational and Individual Responses to Legal Paradigm Shifts in the Ownership of Information in Digital Media. Ethicomp 2002, Universidade Lusíada, Lisbon, Portugal, 13-15 November, 2002.
17. Litman, Jessica. (2003) Keynote Address: "Ethical Disobedience" (not available in print) Sixth Annual Ethics and Technology Conference, Boston College, Boston, USA, June 27-28, 2003.
18. Free Software Foundation. (1996) The Free Software Definition. <http://www.gnu.org/philosophy/free-sw.html> (last checked August 29, 2003).

Paper III Kimppa, Kai K. (2004), Consequentialist Considerations of Intellectual Property Rights in Software and other Digitally Distributable Media in Ethicomp 2004, Challenges for the Citizen of the Information Society University of the Aegean, Syros, Greece, 14 to 16 April 2004.

Consequentialist Considerations of Intellectual Property Rights in Software and other Digitally Distributable Media

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Abstract: This article answers consequentialist questions raised by various parties about the consequences of the implications of some recent liberalist and libertarian thoughts of intellectual property rights (IPR's) in software and other digitally distributable media. It argues that most typical consequentialist arguments why IPR's ought to be granted to software and other digitally distributable media are lacking in their power to prove the necessity of IPR's. The aim of the article is to show that the proofs are either purely theoretical and can't be tested in real world situations or ad hoc rationalizations and that the counter examples given – even though often just as theoretical – at least seem as plausible if not more so. When neither side can be verified, no IPR's would seem more logical than IPR's 'just in case'.

Keywords: utility, utilitarianism, consequences, consequentialism, intellectual property, IPR, patent, copyright, free software, open source

1. Introduction

Spinello (2003) points out that IPR's have received too little attention in the field of information technology ethics from philosophers. The legal scholars (see e.g. Sixth Annual Ethics and Technology Conference Proceedings, various legal publications, including the Yale Law Journal and the Journal of Law and Philosophy) have tackled the problems to a larger degree, but mainly, although not only, from a more applied point of view rather than approaching the question of what kinds of rights, if any, would be right or good. Philosophers should contribute more to this discussion. Spinello also points out, that "[i]n light of digital technology it is especially critical to re-examine the underpinnings of the moral legitimacy for intellectual property protection." (Spinello, 2003.) The re-examination of the underpinnings of the moral legitimacy for IPR's seems to both start from and lead us to somewhat different directions. Spinello seems to start from the current situation rather than a no-IPR's situation which leads him to advocate a shortened and possibly less stringent IPR protection, labeling a situation of no intellectual protection 'information anarchy'. In my understanding, anarchy

leads to the laissez-faire situation where the strongest rule with monopolies or oligopolies and that resembles more the current situation in software and other digitally distributable media than a situation where IPR's would not be granted at all.

Spinello (2003) claims that if we “accept some version of the Lockean perspective that individuals have a natural entitlement to control the results of their labor” it would transfer over to the immaterial as well as the material results of that labor. Kimppa (2003a) (see also e.g. Long, 1995 and Kinsella, 2001) has approached the question of IPR's from a Lockean liberalist position and come to quite different conclusions. Since the immaterial is nonrivalrous, the Lockean claim that as much and as good must be left for others, at least in the starting situation, still holds. Thus we need to start from a situation where no IPR's are granted and consider whether such rights would benefit or worsen the condition of the society or societies. Papers presented by Kimppa (2003a, 2003b) have raised considerations of whether the consequences of such a system would be, in the consequentialist sense, good or not.

In this paper I aim to go through the main arguments for IPR's from the consequentialist point of view and show their weaknesses, and the main criticisms which the no-IPR's view has received from the consequentialist camp and try to rectify the latter. I will start by showing that the main utilitarian argument that we should try to maximize the good of the society has been misunderstood to mean only quantitative good measured in – especially when considering the loss of potential profits if IPR's were to be abandoned – profit. Not enough attention has been paid to the qualitative aspects of good, of understanding what constitutes good for the members of society and whether it is equally transferable from one person to another through some medium such as money.

Then I will consider that in consequentialist thinking ‘as much good for as many as possible’ the ‘for as many’ seems to have been forgotten. I will first approach the issue of whether a society in which one has lot and others have little is better or worse than a society in which all have some, even if the latter society has less overall than the first society. Then I will tackle the question of whether the so-called ‘trickle down theory’ seems to work or not and who the current IPR system will benefit; whether it will benefit the rich or the poor, the corporation or the citizen – with-in societies and in-between them.

After this I will turn my attention to the claims that innovation would suffer were we to abandon IPR's. I will point out, that not all innovations are qualitatively equal in importance for the users. Those innovations that stem from the need of the innovator, rather than the need of the marketing department, rise from concerns of what is needed rather than the concerns of what can be marketed.

I will also approach the question of whether IPR's in software and other digitally distributable media indeed grant limited monopolies as claimed by their advocates or actually grant unlimited monopolies, at least for all practical purposes, and what are the consequences of that.

I will point out that verification of the benefits of current IPR's is very difficult if not impossible and that the original reasoning for them has long since abated. I will argue, that they can't be upheld for 'just in case', for the reason that they might promote creativity, if we have no solid grounds for the claim and if we have multitude of examples where they clearly inhibit creativity instead of promoting it.

And finally, I will propose alternative solutions rising from Free Software Foundations position and consider gains and losses we would have to face if they were adopted instead of the current laws and practices.

2. Common consequentialist arguments for intellectual property rights and their critique

Some liberalist and libertarian papers (see e.g. Long, 1995; Kinsella, 2001; Kimppa, 2003a and 2003b) have lately raised some concerns about the consequences for society/societies of their respective approaches to IPR's. This paper answers some of the concerns presented by those worried.

2.1 Quantitative or qualitative good?

Utility is not measured only in monetary rewards. This misunderstanding seems to be pervasive when talking about IPR's. The 'good' has been misunderstood as 'profit' or 'benefit' or even as 'money', which are not directly the same thing – at least from a philosophical point of view. In consequentialist terms, we must consider other things, like what constitutes good for the society. If granting IPR's should diminish that, IPR's must be reconsidered.

Utility has been misunderstood – especially when talking about loosing potential profits if IPR's would be abandoned – as profit. Profit, or money, is a good way to measure utility, as it is easily countable and many things are easily measurable in monetary terms. A problem arises when things such as love or – as Johnson (2001) defines utility – happiness are attempted to transfer to money or profit. This seems at least difficult. The basis of consequentialism and utilitarianism is 'as much good for as many as possible', not 'as much quantitative, or easily countable, good for as many as possible'. We can't only count the easily measurable, we must also remember such joys as the joy to invent, the joy of love, the joy of understanding, which do not transfer to money or other easily comparable forms.

As seen, the ‘as much’ in ‘as much good as possible to as many as possible’ seems to have been misunderstood. It is understood, that only the quantitative matters. Qualitative is out of the picture (because it is difficult to measure in dollars or euros). All innovations, however, are not qualitatively equally valuable. If we are to believe the economists, it would seem (to large degree) be the reasoning that only quantitative amounts can be measured. The more innovations we get the better. However, if we look at what kind of innovations the current ‘limited’ monopoly produces to us; it produces innovations that can be marketed. It doesn’t necessarily produce innovations that the people would actually need or want. If, on the other hand, we approach the innovations from what people need and want, a most profound reason for innovating is to innovate for the needs of oneself and those one considers important – be that only themselves, their close ones, or, for some hopelessly idealistic people, the society’s members or even humankind at large. This kind of innovation would, instead of easily marketable results, lead to products that the people actually need and thus be better for the society or societies as whole than the current innovations, which most time are made to be marketed if motivated by IPR’s and not the need or want to innovate. The innovations that we now receive from the need or want to innovate would be innovated in any case, and thus they do not necessarily need IPR’s to protect them. IPR’s can, however stifle innovation of needed or wanted applications due to someone already having IPR’s to the same innovation or parts necessary for the innovation the innovator might want to create. (See e.g. Spinello, 1995.)

Typical example on how IPR’s can stifle innovation would be DVD protections which can’t be overcome under GNU/Linux operating system with free and open source software (F/OSS) due to the protections being proprietary and that a licence fee must be paid to bypass them with already written software and even forward engineering a solution to bypass them is illegal.

2.2 As much good to as many as possible or as much good as possible?

Feldman (1978) has proposed different definitions of utilitarianism; I am interested in his favorite, U7 “an act is right if and only if there is no other act the agent could have done instead that has higher utility than it has” and mine, U8 “an act is right if and only if it produces the greatest happiness of the greatest number”, although I would like to rephrase U8 to U8’ as “an act is right if and only if it produces as much good for as many as possible”. Johnson (2001) has a similar phrasing to Feldman’s U8 and my U8’, “everyone ought to act so as to bring about the greatest amount of happiness for the greatest number of people” – she doesn’t seem to worry about the issue which Feldman finds problematic with U8 and it’s variations, namely that there are two separate variables in them. I am neither troubled by this, for various ways to analyze them can be created, certain limits on when the happiness, or good, as I want to put it becomes more important than the amount of people it concerns and vice versa. To me, as seems to be to Johnson, it is intuitively

clear, that U7 would result in far more troublesome situations than U8 and its variations.

The ‘as many’ seems to have been either forgotten or ignored or, as well, misunderstood. If we get X amount of ‘good’ (which seems to equal money for the economists) distributed unequally, it is better than X-Y (where Y is a positive natural number) equally distributed, however small the Y. If one looks at the world around one, one is bound to notice, that the former seems to be the rule, to an ever growing amount within, but especially in-between countries. There is more ‘good’ (or money in today’s economically charged political climate in the western world) to be distributed, and percentage wise less and less people distribute it between one-another. This, however, seems intuitively wrong, when we are aware that some suffer from hunger while others have more money than they and their heirs can spend in several lifetimes. This is a consequence of the kind of consequentialist thinking that seems to be prevalent; the kind of thinking just described in the previous chapter.

2.3 Who is the target of good; the citizen or the corporation?

The future of the industry – both in content and software production – seems to be forming on the rules of the content industries and technology companies. Other stakeholders, namely the scientists, developers and the general public seem to have been forgotten when changes in the copyright protection are made. As Grove (2003) amongst others points out, for example the DMCA limits scientists from learning from already existing software; even if the circumvention of the protections of the software is done purely on research basis. Also, learning about possible security hazards of programs becomes impossible to be done for the outsiders and thus preventing misuse (misuse, for which the circumvention of the protections will be done regardless of whether the law allows it or not) of the possible security holes is left purely in the hands of the IPR holder. F/OSS are fully open and thus anyone can find, point out and even repair possible security holes, thus increasing the security of the program. Other bugs in software fall under this same rule. Bugs, which lessen the usability of the program for what ever purpose it was designed are transparent in F/OSS and are especially difficult to find and/or correct in IPR protected software, especially if the circumvention of the protections is illegal.

Having IPR’s causes a situation where developers of the immaterial can’t stand on ‘the shoulders of giants’ but instead have to limit their development by the artificial barriers caused by IPR’s. The way to further develop the immaterial, especially in the software business be employed by the developing corporation, thus one has to ‘stand on the shoulders of IPR holders’. This causes according to Stallman (1992) the development and distribution of software (and other immaterial) to become far more expensive than it would be if no IPR’s were in place, thus implicitly supporting the need of IPR’s because it is easy to point out that development is

expensive, difficult and time consuming and thus needs to be rewarded by IPR's – prime example of circular argumentation.

2.4 Does it really trickle down?

The 'trickle down theory' doesn't seem to maximize utility. It functions too slow and too late from a human scale, which ought to be paramount when considering what is right and what is wrong. Maximizing utility is social well-being. We have forgotten the rule of 'for as many' in the utilitarian line of argument. It is claimed that innovations need a property-like protection for them to be created. According to some, these innovations will then enter the society (with a limited monopoly) and finally, dribble (with a delay) down to other societies – innovations, that wouldn't be made at all were it not for the intellectual property rights. First only the ones with enough resources to meet the licensing fees or monopoly costs will be able to appropriate these innovations, then when the first niche has been drained, those with lesser resources will be able to purchase them and finally, when the (limited) protection time is over, anyone will be able to acquire them. The problem with this is, that the limited monopoly has turned in a human scale and in a computer-age scale to an *unlimited* monopoly and thus, when the people and organizations who would have benefited the most from these innovations are finally able to use them, the innovations are already either not helping them at all or not a viable basis for further innovation. This is true for AIDS medicines – if the patent times of 20 years are the hindrance to the use of AIDS medicine, the people who would have needed the medicine will already be dead by the time they had access to the medicines – as well as for software – by the time copyright in software ends, the need of further developing that software (and thus the potential other innovation directions than the copyright owners chosen ones) has already passed, for who would want to further develop a software that was new over 70 years ago?

Lessig's (2001) idea of a 5 year copyright term once renewable for software or Spinello's (1995) idea of 6-8 years patent term for software seem reasonable, but are they? The 5-10 year copyright term will still encourage massive software since there is no incentive to publish the source code further development of such software is still crippled by a system like it. Also, the ten year protection term would mean that further developing and learning from software like windows 95 (not that I would be claiming that someone would want to enhance or learn from windows 95 particularly) would still be difficult even if the source would have to be opened to public scrutiny even after the ten years. Lessig's approach would still lead to massive rather than modular software, which by its very nature would slow the development of it down further. The 6-8 years patent term for software patents sounds much more reasonable first of all since the patent itself would be public, but it would still stifle development for that period of time. Often being first to market is quite sufficient enough benefit to come up even with currently patentable inventions and since the markets have quickened and broadened considerably since

the global information exchange and global markets emergence, the time to cover development costs has also shortened considerably. This holds especially true with software patents, which often are not very novel and thus have low development costs (e.g. 1-Click shopping patent).

Even if IPR's would locally in one country create a net benefit they still might globally cause net losses (Draho, 1996), the following cases give examples of this. WTO has finally admitted, if one looks at late news, that by-passing IPR's in medicines may be morally and economically correct. The negative consequences for the drug companies developing cures for malaria, AIDS, and so forth, are lesser than the beneficial consequences for third world countries. What baffles the writer is how is it then possible to claim, that when over two thirds of the world's population could gain on the less than one third by opening all intellectual property rights for the next say, 20-30 years, that it would be less beneficial? Quite the contrary could be claimed. The need for opening drug IPR's would become unnecessary if the countries could freely utilize all intellectual creations of today and they could actually be able to raise their standard of living to the current western standards. Japan serves as a good example on a country that didn't acknowledge western IPR's during its industrialization and managed to become an industrial and post-industrial state very quickly. To whom ever who would claim that after that the standards of living could proportionally fall to the same difference again, it is absurd to say, that if even all western people could achieve the living standard of, say, Bill Gates, or Michael Jackson and at the same time the average third world country member would be 'only' at the living standard of the average Joe or his aunt Tilly, that the situation would in some way be comparable to the situation existing today.

Access to information is crucial if we want to equalize the world's living conditions. Access to basic information is not enough, but also access to applied information must be available, lest the weaker never catch up with the stronger. Application advances need to be understood and the possibility to further develop them needs to be available, else the gap between the rich and the poor countries can never be gapped, and the relative, and likely also the actual distance will continue to grow rather than abate.

2.5 Might promote good?

The main argument against strong IPR's from the consequentialist or utilitarian point of view is, that most if not all arguments for IPR's from the consequentialist point of view are theoretical, they seem more like ad hoc rationalizations for a system that was not built for the good of the people, but rather for the good of the ruling class, and thus if a truly consequentialist system to govern the immaterial is wanted, basic arguments for and against it must be placed in equal starting point and the system must be built from there up. Even if the later systems are looked at we notice, that the original times for patents were short compared to the expected

return times (Free Software Foundation, 1993) and for example in the United States no copyrights were granted for foreigners until 1891 (Alford, 1995), for as long as it was net-benefactor of imported copyrighted knowledge (this seems to be awfully close to importing and creating pirated copies). We have not been able to actually verify whether the claims for IPR's hold true or not, since it is impossible to create competing societies with other variables equal. Thus, even though the consequentialist arguments for lesser or no IPR's are quite as theoretical, the burden of proof should be on those introducing IPR's rather than those claiming that no such thing is necessary. If the arguments from both sides are weighed to be even approximately equal, then no IPR's should be placed rather than 'let's give them IPR's just in case it might stimulate creative activity' for they always limit others' possibilities to use these otherwise unlimited resources and thus unarguably lessen the overall good of the society/societies. What we do know, however, is that the situation in both the realm of patents and copyright differs considerably from the times of a hundred years ago (Free Software Foundation, 1993; Stallman, 1994). Yet, even though dissemination times are shorter and spread of products wider and thus, one would imagine, profits faster and greater, rather than shortening the protection times for the immaterial, the protection times seem to lengthen and smaller and smaller things are considered as patentable innovations.

“The case of programs today is very different from that of books a hundred years ago. The fact that the easiest way to copy a program is from one neighbor to another, the fact that a program has both source code and object code which are distinct, and the fact that a program is used rather than read and enjoyed, combine to create a situation in which a person who enforces a copyright is harming society as a whole both materially and spiritually; in which a person should not do so regardless of whether the law enables him to.” (Free Software Foundation, 1993)

As Karp (2003) points out, the worry about potential profits has been with us ever since the invention of tape and video recorder and copy machine. Contrary to expectations, at least some of these media actually enhanced the profits of the industries after the correct ways to utilize them were found. The same seems to hold especially for digitally distributable media, such as music and video's. The distribution channel eliminates the middle-men from the equation and the creators of the media can sell their products directly. Thus, even if some or even a lot of profits are lost due to copying of media in question, the profits themselves can go directly to the producers instead of the oligopolistic market functioners and the retail stores. The form of the internet distribution also benefits such actors, which would have little or no hope of getting to be known through the old distribution channels. Most of the profits actually given to the artist, author or developer of software after all go to main names in the business. (See e.g. Agre, 2003.) The attempts to protect the existing business model will only delay the emergence of new distribution channels. Losses in potential profits are also counted in a very strange way.

All copied products are often considered lost potential profits even if the users copying the product would not have purchased the product irrespective of whether they were able to copy it or not (Stallman, 1994). When the real harm is that fewer users will have the possibility to use the program if the use is artificially – through IPR’s – restricted (Stallman, 1992).

“Software hoarders try their damndest to stop you from running a proprietary program without paying the standard price. If this price is high, that does make it hard for some users to use the program.” (Free Software Foundation, 1996.)

Patents seem to be accepted at face value. Even when there is no actual ground breaking invention needed, but rather a commonly known and even used solution is first applied for protection. This can lead to situations, where even an average Joe doing his homepages can violate a patent – unaware of the violation – and then be asked to remove the violating procedures and even prosecuted for using them. The overhead of considering who owns the rights to certain features or even whole programs can also be eliminated by dropping IPR’s all together – to find out with whom different licensing agreements should be made or even just to upkeep a system, especially in this time of Internet when copying is easy, to pay royalties for usage of the immaterial occur at a great financial and social cost (Free Software Foundation, 1993). Typical example of such frivolous patent would be the 1-Click patent. (Besaha, 2003.) Even if we were to accept the IPR’s as they have been meant to function and the justifiability of them in that context, clearly most of the late legal actions (CTEA, DMCA) and the application of them (see e.g. the previously mentioned 1-Click patent or Vivendi vs. BnetD, both widely covered even in mainstream media) have defeated the purpose of the IPR protections, namely to introduce new artistic creations and innovations to the society for a limited monopoly time then to be submitted to the public domain for free use and improvement of the creations or inventions.

There are some considerations that clearly speak against giving IPR holders exclusive rights to their creations or inventions. Most clear ones are the limits on utility of the user in a situation where they need to make changes to the software for it to function correctly, to patch up a security risk or to make it do what the user wants, if that happens to differ from the ideas the creator had in mind (Stallman, 1992; Free Software Foundation, 1993).

2.6 *Would be created anyway?*

The main argument for IPR’s is that if none are granted, no immaterial will be created. This argument is flawed in multiple ways. First of all, it assumes that there is only one possible way for rewarding creativity, to provide proprietary control over its results. This of course is clearly false. It is a loaded question, which can be expressed in the words of Richard Stallman:

“The economic argument goes like this: ‘‘I want to get rich (usually described inaccurately as ‘making a living’), and if you don't allow me to get rich by programming, then I won't program. Everyone else is like me, so nobody will ever program. And then you'll be stuck with no programs at all!” This threat is usually veiled as friendly advice from the wise.” (Stallman, 1992.)

Many people will program regardless whether they get paid for it or not. Simply from the need of programs or the need of changes in existing programs they themselves have. On top of this, they can hire their work for those wanting changes in a program and thus get paid or get paid for ‘hand-holding’, i.e. help desk support functions. (Free Software Foundation, 1993; Stallman, 1994.) Also, we have many examples from software, music and even books that have been available for free, yet people are willing to pay for them on voluntary basis. Maybe not as much as if they were sold proprietary only, but as ethicists we ought to be more concerned about the total good they produce rather than the income they produce. So possibilities for making a living with creating immaterial do indeed exist even if proprietary software or any IPR protected immaterial wouldn't. If this distribution method creates possibilities for greater happiness than proprietary methods it ought to be advocated.

Even though Spinello (2003) citing Lessig (2001) thinks, that copyright incentives are important to stimulate creative activity, my claim is, that especially a lot of the software needs to be developed whether there is an intellectual property protection to it or not. For example the hardware manufacturers create software or give incentives to create it to be able to sell their hardware (Stallman, 1994). Also, a lot of software and other digitally distributable media is created in which the IPR's are voluntarily set up so that no licensing fees need be paid.

“Post-modern critics, for example, find it hard to accept that creative works have a single author, so the assignment of a ‘property right’ loses intelligibility” (Spinello, 2003). Note that many inventions would be made irrespective of giving a property right, for the pure reason, that not many works have a single author/creator but are creations that have been studied in many places at the same time. The airplane would function as a typical example of such inventions. Thus, they'd be created even without a strong intellectual property regime in place.

Also, as was previously pointed out, if people invent for the needs and wants arising from themselves or their close ones, or from the pure joy of inventing, at least some of the wanted things would be invented in any case.

3. What then?

But does this need to be the case? If IPR's didn't exist, any party could use advances of another party, and instead of these monstrous development projects (be they in software or other immaterial) we could instead advance by multiple smaller

steps. This is specifically beneficial in software development where modularity would often time (see e.g. many F/OSS projects, most predominantly GNU/Linux development (Raymond, 2001)) work much better than grandiose projects that try to answer all problems in one centrally organized software.

As Spinello (2003) notes, the IPR laws are getting more and more stringent (See also Stallman, 1994) and at the same time the intellectual commons is pushed to a smaller and smaller area. Even though the F/OSS movement and similar appear to be independent of the proprietary software creators, this is actually not true. If the F/OSS side wants to keep their competitiveness, they will have to be able to reverse (or forward) engineer technologies, technologies, of which some are now patented, rather than copyrighted and protected by laws such as the DMCA, according to which it is claimed, that reverse-engineering is actually breaking encryptions.

From the consequentialist point of view IPR's cut into the natural rights of the public and thus can only be justified if they benefit the public (Stallman, 1994). If the previous has convinced the reader, that this is not at least *prima facie* the case, we ought to reconsider IPR's and start from an empty playing field in our consideration of their justifiability rather than just accept them as they stem from the current, how ever traditionally accepted laws.

Both Stallman (1992) and Spinello (2003) note that the specialists called in when considering the copyright law are most time representatives of the industries in question. Hardly ever are the consumer organizations or the users of the products of these industries heard and if they are, their possibility to influence the decisions seems limited compared to the power and influence of the industry representatives. This is bound to lead to a situation where the interests of one party in a multiparty situation are over represented in the decisions made. From a consequentialist point of view however, the prosperity and freedom of the public is of utmost importance. Does this method of finding the solution actually promote or hamper the good of the people? Stallman's answer – and Spinello is, albeit more reservedly, somewhat along the same lines – is that it rather hampers than promotes the good of the programmers, users and eventually, the people in general. The public sphere of the immaterial lessens if the only parties listened to are from the production side, they would of course want stronger protection and less immaterial that would be freely available since it serves their short term (and in some cases long term as well) interests by allowing them to have limited monopolies on immaterial goods that could otherwise be easily copied and distributed. The recent case of software patents in EU is a fine example of this. When constructing the directive, people were not listened to but fortunately the public pressure by citizens' organizations forced the directive – at least temporarily – to be stopped from passing.

If all media which now is distributed in paper or other physical form would be distributed (also) in electronic form, it would even be beneficial to the human

populace in that it would pollute less. The problem with IPR's in this is, that first there is no reliable way to pay electronically which would be available to all people – this of course is only a temporary problem which can be overcome, but still real, none the less. Second, since the IPR's are so strong, many of the producers of immaterial in electronic form are switching towards one-use or limited-use products (Felten, 2003), which again shuns the consumers from using digitally distributable media over physically distributed media or from using the media all together, which in itself lessens (at least social) utility. Third, digital rights management (DRM) in digitally distributable media prevent users from utilizing their rights still available in other media. A book or a music CD is possible to copy to oneself or a friend, which in DRM protected product is not possible. (About the limitations of fair use in DRM see e.g. Erickson, 2003; Felten, 2003 and Fox and LaMacchia, 2003.)

The copying of digitally distributable media runs as rampant as it can (we are all aware of P2P distribution such as Kazaa). Even tightening up the protection only leads to counter measures (encrypted transmissions where the source of the files is not viewable from outside) created by the (non-profit) parties distributing unauthorized copies. The persons who do not want to pay for their software will get it without paying for it as situation is. The situation as it stands also feeds into the hands of organized crime in profits that can then be used for other organized crime than the distribution of digitally distributable media which can in many ways be much more destructive for the society than this particular aspect can ever be. The parties wanting to copy and distribute copied products for monetary gain can function rather well even under the current systems. If there were no IPR's, and thus this kind of distribution being legal, the criminal organizations hold on the distribution of such digitally distributable media would weaken and eventually disappear. Eliminating IPR's and thus allowing these functions would contribute to the general well-being of the society and thus increase the utility or good of the society. This by no means indicates that the organization creating the digitally distributable media could not still distribute it for profit, as we can see from the examples of several GNU/Linux compilation distributors. Also, the creators could offer other services, such as enhancements, services or support for the product, as pointed out elsewhere in this article.

4. Conclusions

What I've been aiming to show is that from a consequentialist point of view, the currently prevalent restrictive system has first of all serious problems showing that it produces the largest amount of good and second of all, doesn't seem to fare too well compared to many of the alternative approaches I showed. If this is so, it is hard to justify the restrictions it places upon the freedom of the common man and instead the privileges it gives to the software companies. This is, what I have been worried about in my two previous articles (see Kimppa, 2003a and 2003b), in which I have aimed to tackle this problem from a Lockean liberalist position.

The total amount of hedons might be smaller in the system which I propose due to it not creating massive software that could as easily be marketed as the current one does, but so would also be the total amount of dolors, due to it not being restrictive on the users in the way the current one is. In my opinion, we would still remain more on the positive side in my proposed system than in the current one. Unfortunately, this can not be tested, due to obvious reasons; we do not have an alternative world, where we could test my hypothesis, so it will have to be this world or no world, where it is tested.

Despite the system which promotes proprietary software, F/OSS software has fared reasonably well – with approximately 15% of the ‘market share’ of operating systems. This, however, is under threat by software patent. The future might not be as rosy. If software patents become common place, they will drive the F/OSS out of ‘business’ due to the F/OSS developers not being able to even themselves create competing software, since patents, unlike copyright, just can’t be lawfully reproduced, even if it is done from scratch. Were it so, that some or even many software patents were such, that the consumers wanted to use programs benefiting from those patents, the big software companies are sure to buy the patents (if they don’t develop them themselves) if for no other reason, then to ensure, that the F/OSS developers can’t get their hands to them at all due to F/OSS being non-proprietary and thus being unable to pay licensing fees and therefore weaker in anything that is totally exclusive in the proprietary market. This kind of competing is what Richard Stallman (1992) calls combat: “Withholding information that could help everyone advance is a form of combat.”

Is that the kind of competition and the kind of world we want to promote? I hope that we have risen above the ‘natural state’ of war against everyone and instead to join Locke’s commonwealths and can try to compete fairly. The dolors created by the nasty competition itself seem plentiful enough to direct us to think that maybe, just maybe, we have gone the wrong way and ought to reconsider our road.

References

Agre, Philip E. (2003), P2P and the Promise of Internet Equality. *Communications of the ACM*, Vol. 46, No. 2: 39-42, February 2003.

Alford, William P. (1995), *To Steal a Book Is an Elegant Offence: Intellectual Property Law in Chinese Civilization*. Stanford University Press, Stanford, California.

Besaha, Bob. (2003), Bounty Hunting in the Patent Base. *Communications of the ACM*, Vol. 46, No. 3: 27-28, March 2003.

Drahos, Peter. (1996), *A Philosophy of Intellectual Property*. Dartmouth: Dartmouth Publishing Co. Ltd.

- Erickson, John S. (2003), Fair Use, DRM, and Trusted Computing. Communications of the ACM, Vol. 46, No. 4: 34-39, April 2003.
- Feldman, Fred. (1978), Introductory Ethics. Prentice-Hall, Inc.
- Felten, Edward W. (2003), A Skeptical View of DRM and Fair Use. Communications of the ACM, Vol. 46, No. 4: 57-59, April 2003.
- Fox, Barbara L. and LaMacchia, Brian A. (2003), Encouraging Recognition of Fair Uses in DRM Systems. Communications of the ACM, Vol. 46, No. 4: 61-63, April 2003.
- Free Software Foundation. (1993), The GNU Manifesto, online at <http://www.gnu.org/gnu/manifesto.html> accessed 11.01.2004.
- Free Software Foundation. (1996), Selling Free Software, online at <http://www.gnu.org/philosophy/selling.html> accessed 11.01.2004.
- Gove, Jeff.(2003), Legal and Technological Efforts to Lock Up Content Threaten Innovation. Communications of the ACM, Vol. 46, No. 4: 21-22, April 2003.
- Johnson, Deborah G. (2001), Computer Ethics (3rd ed), Prentice-Hall, Inc.
- Karp Alan H. (2003), Making Money Selling Content that Others Are Giving Away. Communications of the ACM, Vol. 46, No. 1: 21-22, January 2003.
- Kimppa, Kai K. (2003a), Intellectual Property Rights in Software: Justifiable from a Liberalist Position? – The Free Software Foundations Position in Comparison to John Locke’s Concept of Property. The Sixth Annual Ethics and Technology Conference, Intellectual Property Rights in a Networked World, pp. 143-152, Boston College, June 27-28, 2003.
- Kimppa, Kai K. (2003b) Redistribution of power from government to intellectual property rights owners and organizations looking after their interests: Justifiable from a liberalist position? Second Summer School by IFIP WG 9.2, 9.6/11.7, 9.8, Risks and Challenges of the Network Society. 4-8 August 2003, Karlstad University, Sweden, online at <http://www.cs.kau.se/IFIP-summer-school/preceedings/Kimppa.pdf> accessed 11.01.2004.
- Kinsella, N. Stephan. (2001), Against Intellectual Property. Journal of Libertarian Studies, Vol 15, no. 2, Spring 2001:1-53, Ludwig von Mises Institute, online at http://www.mises.org/journals/jls/15_2/15_2_1.pdf accessed 11.01.2004.
- Lessig, Lawrence. (2001), The Future of Ideas. Vintage Books, Random House Inc., New York.

Long, Roderick T. (1995), The Libertarian Case Against Intellectual Property Rights. Formulations, Autumn 1995. Libertarian Nation Foundation, online at <http://libertariannation.org/a/f3111.html> accessed 11.01.2004.

Raymond, Erik S. (2001), The Cathedral & the Bazaar. O'Reilly, UK.

Spinello, Richard A. (1995), Ethical Aspects of Information Technology. New Jersey: Prentice-Hall, Inc.

Spinello, Richard A. (2003), The future of intellectual property. Ethics and Information Technology, 5: 1-16.

Stallman, Richard. (1992), Why Software Should Be Free, online at <http://www.gnu.org/philosophy/shouldbefree.html> accessed 11.01.2004.

Stallman, Richard. (1994), Why Software Should Not Have Owners, online at <http://www.gnu.org/philosophy/why-free.html> accessed 11.01.2004.

Paper IV Kimppa, Kai K. (2005), Kantian Duty Ethics Compared with Current Intellectual Property Rights Laws. Computer Ethics, Philosophical Enquiry 2005, University of Twente, Enschede, The Netherlands, July 17-19, 2005.

Kantian Duty Ethics Compared with Current Intellectual Property Rights Laws

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Abstract

This article discusses the question of whether the current intellectual property rights (IPRs) laws can be deduced from a Kantian duty based ethic. It introduces the reader to different formulations of Kant's categorical imperative (CI). It goes through the arguments for the current IPRs and shows that they are not in accordance with these formulations. Thus the categorical imperative cannot be used as proof for the current IPR laws. The Free and Open Source Software (F/OSS) movement is offered as an alternative which does fulfil the Kantian duty ethic.

Kant, Ethics from Duty, Categorical Imperative, IPRs, F/OSS

INTRODUCTION

Several of the classic justifications of Intellectual Property Rights (IPRs) have stemmed from duty ethics. Traditionally it has been thought that the public has certain duties towards the thinker, the creator, the inventor of the immaterial²³. This position is difficult (if not impossible) to deny. The creators of immaterial undoubtedly enrich the lives of others in various ways. What has not been –and is not – quite as clear is whether the duty of the public transfers to the current IPR laws. There are various other ways to enable compensation for the creators of the immaterial from grants through government subsidies to voluntary reimbursements (Stallman, 1992) if offering combined packets of software, first to market, support services or getting paid for work done is not considered enough (Kimppa, 2004). What this article will look into is whether the duties of the public and the duties of the creators of immaterial are taken into account as equally relevant. It will also

²³ Immaterial is used in place of intellectual property where intellectual property is not specifically talked about to avoid connotations attached to the word property.

study how the digitalisation of the immaterial changes the situation from previous times in which all immaterial except knowledge or understanding in the heads of people was distributed in material form as books, cassettes, CDs or other material media. Most immaterial is of course still distributed in material form although it would seem that this is not necessary.

The article will ponder the underlying reasons why the creation of immaterial is important, what is the purpose of the creation of the immaterial and how current IPR laws treat these purposes. The fact that Information and Communication Technologies (ICTs) offer new and different possibilities to the distribution of the immaterial forces us to re-evaluate the need for IPRs. In the end a different, although surprisingly familiar (at least to academics) solution will be sought from the current Free and Open Source Software (F/OSS) development and the so called Copyleft movement.

The paper will present several imperatives. It will be shown that some of them are not categorical imperatives in the Kantian sense and thus cannot be used to justify IPRs from a Kantian point of view. Also, some formulations of the categorical imperative in relation to IPRs have been misleading and thus are not really categorical imperatives at all.

The article will propose that if we follow the Kantian Categorical Imperative(s) (CI) consistently, the current laws cannot be justified from duty, but different solutions must be found. Although Kant always claimed that circumstances do not affect the validity of CIs, and the author does not disagree with this, it is not possible to know all relevant things – even theoretical ones – if they are not invented at the time certain examples are brought forth. The formulations of the Categorical Imperatives are after all dependent on the examples which can be given.

CATEGORICAL IMPERATIVE(S)

The familiar Kantian categorical imperative has been presented in many forms. Kant considered several different forms of it to be different formulations of the same issue of which three will be used (CI1, CI2 and CI3 henceforth). CI1 states that “an act is morally right if and only if the agent of the act can consistently will that the generalized form of the maxim of the act be a law of nature”²⁴. CI2 states that “an act is morally right if and only if the agent, in performing it, refrains from treating any person merely as a means, but always as an end in themselves”²⁵. CI3 states that “An act is morally right if and only if the agent, in performing it, follows a universal ethical law of nature autonomously.”²⁶ (Modified from Feldman, 1978.)

²⁴ <http://www.swan.ac.uk/poli/texts/kant/kantc.htm> “Always act on a maxim which you can will to become a universal law of nature.”

²⁵ Other translations include e.g. Liddell: “Always act so that you treat humanity, whether in your own person or in another, as an end, and never merely as means” or at <http://www.swan.ac.uk/poli/texts/kant/kantc.htm>, “So act as to treat humanity, whether in thine own person or in that of any other, in every case as an end withal, never as means only.”

²⁶ Liddell: “[H]e is bound only to a universal law which is self-made and that he must conform only to a will which, while it is his own will, yet is designed by Nature to make

The two first formulations of the categorical imperative have been used to justify the creator's rights to the immaterial. The form the justifications have taken can be presented in a following manner: "the (limited) monopoly rights to the immaterial are justified because everyone is treated the same in respect to their creations" and "since the creator of immaterial is an end in themselves, they ought to be revered and thus granted rights to the immaterial they have created". (See e.g. Grey, 1980; Johnson, 1985; Stallman, 1994 or Drahos, 1996 amongst many others in both academic and mainstream articles.) Both of these justifications sound justified *prima facie*. Neither stands too well to closer examination.

CI1

In the formulation of the CI1 "the (limited) monopoly rights to the immaterial are justified because everyone is treated the same in respect to their creations" various faults can also be found. The monopoly (especially in relation to copyright, but to a large degree also in relation to patent) is hardly limited in a human scale. Almost no one alive today can expect to further develop software protected by copyright unless the copyright holder gives them access to the software. If anything immaterial is protected by copyright, the time of the protection is in any case outside the human scale of "limited" monopoly. The wider and faster distribution of the immaterial in itself, made available by the electronic distribution possibility of the immaterial should ensure quicker returns of investment and profits in far shorter time than 70 years after the death of the creator. For the patent, the time frame is almost impossible for further development from a purely technical perspective. It is clear that 20 years and older software is effectively outside the scope of truly being further developable. (Kimppa, 2004.) This does not take other people into account as ends in themselves but only as means for profit.

Also, since the immaterial creations are not equally producible in other ways, everyone is not treated the same in comparison to one-another. The creators of some certain immaterial exclude others from creating or using the same immaterial and thus from using it unless given right by the first creators. This creates a situation in which the real options are not equal and thus everyone is not treated the same. (Kimppa, 2005a) Thus it is not according to the CI1 to will this as a universal law.

CI2

From the second formulation can be derived that the creator of the immaterial should be able to control what they have created or at least be (through law, i.e. mandatorily) compensated for their work. Even though the idea is often formulated according to the following, "since the creator of immaterial is an end in themselves, they ought to be revered and thus granted rights to the immaterial they have created", the current legal form of this should actually be put in the form of "the creator of the immaterial is allowed to (arbitrarily) exclude others from the use of the immaterial", for this is what the current IPR laws actually say (Litman,

universal law" and later in the same chapter "I will call this moral principle the principle of the AUTONOMY OF THE WILL" (capital letters in the original).

2001). The current IPR laws (CDMA, extending copyright (CTEA, Copyright Term Extension Act), DRM (Digital Rights Management) and software patents especially) seem to be such, that they specifically prohibit others from using the immaterial created and that is problematic (Lipinski and Britz, 2000). Unfortunately to the creators of the immaterial, CI2 applies also for them. They ought to not consider the buying public as only means to an end – be that end recognition or profit (Stallman, 1992). The public, of course, has responsibilities towards the creators of the immaterial, for the creators too are to be considered ends in themselves, but whether such consideration demands (limited) monopoly to the creations of the creators, is not clearly evident. Thus, the formulation of the CI2 that would be acceptable would rather be “since the creators of immaterial are ends in themselves, they ought to be compensated for their work”. This leaves several possibilities to reward the creator of immaterial. The creators of the immaterial can be paid for the work done, from (as according to Kant they should) feeling of duty to follow a universal law of ethics by the user, from grants, by being first to market and so on.

In the line of thinking which starts from the ideas which began the French revolution, the mythical creator of immaterial has been thought to be an end in themselves. This is of course true. From that has been reasoned that they ought to have control over their work. To large extent this has likely been true in the previous times when the distribution of the immaterial has been in the material form. The digitally distributable media changes the situation, however. The expenses for creating the material to distribute the immaterial are vanishingly small. There is no need to have a certain price for the immaterial. The creator of the immaterial need not force an arbitrary price on the materially distributed immaterial but can instead leave the price paid on the consciousness of the buyer – if they so choose.

It is not possible to price the immaterial products so that the pricing would take into account the user as a particular end in themselves. At least unless the price paid is left to be based on the suggestion of the creator of the immaterial and the voluntary choice of following the duty the user perceives relevant. The practical limits of not being able to categorise the users well enough (it would have to come down to individual user level) see to this.

CI3

In light of the new possibilities for distribution of the immaterial in the digital form which enlarges and quickens the possibility of distribution, the reward could be voluntary. This would be according to the Kantian *duty* of the public to not treat the creator of the immaterial as merely means. The user of the immaterial would be able to morally choose to do their duty, as Kant demands for an act to be ethical in CI3. This would enable the user to weigh the value of the immaterial and choose the amount – or even the way, although arguably not as often – of the reimbursement in accordance to what they think the immaterial worth. This could differ depending on the use of the immaterial, whether the user was rich or poor, and the morality of the user. To insist that an immaterial creation is equally

valuable to all seems ridiculous, yet this seems to be true in the pricing of many immaterial products. Music seems to be equally valuable irrespective of the artist, the length of the song, the fame of the band or the quality of the music. In most online stores the current value of a song is at this time 99 cents. It seems that the main companies in the business follow each others' prices closely (Spinello, 1995). The same price is often asked of software irrespective of the buyer – although there are some considerations on this, as often for example the price for software can be less for students. But even there, the price of the software is arbitrarily decided by the IPR holder and often is exorbitant (Spinello, 1995). A person upgrading software typically gets it cheaper than a person buying it for the first time – why is it that a first time buyer would value a certain software more than someone who upgrades their software?

If the immaterial created is worthy, it will get some recognition (Kimppa, 2004). Whether that recognition materialises in the form of praise or money or position and whether it is seen as adequate by the creator of the immaterial, is another question. Whether that is comparable (and in whose opinion?) to the immaterial created, may well be problematic. None the less, the form and the amount of the recognition is irrelevant in the deontological sense, although it can easily be directed by pointing out what the creator would see as a reasonable compensation for their work (as an example could be used Stephen King's book project in the Internet, where it was asked that the downloader of a chapter pay one dollar – voluntarily – for each chapter (see e.g. Jantz, 2001)). In the end, however, as a moral issue it must be left to the user to decide how they see their duty towards the creator to be. It can easily result in a situation, where some of them behave unethically by not rewarding the creator at all (as was the case with King's book project), while others will reward the creator with less, asked, or even with greater compensation than asked for (this we do not know, due to the only possibility was to pay one dollar or not at all, although there are other sites which take any payment, and apparently other payments are made than the ones requested as well).

DUTIFUL SOLUTIONS

Copyleft and the Free Software Foundation offer another view to the creation and distribution of the immaterial (see <http://www.gnu.org>). The Free Software Foundation insists on giving the creator of the immaterial their due in both recognition and in compensation. The recognition is handled simply by acknowledging the previous contributors to an immaterial in the immaterial itself when it is distributed or modified. The compensation is given for the work done, not for the potential of the immaterial when in use.

In the world of Internet the community to which the immaterial can be shared in the electronic form is great enough for receiving benefits from voluntary payments – if these payment possibilities are offered (Stallman, 1996, 2000). Even though in the Kantian system the benefit given to the author or the creator must be taken into account, the consequentialist approach (see Kimppa, 2004) shows that if the creation is worthy, it will typically get at least some benefit in any case. The problem is, whether the benefit is comparable to the production of the immaterial;

whether that is the question that needs to be answered. Maybe the question in need of an answer is instead one of comparison, of total utility or total benefit to all parties in question. This is a question of Kantian deontology in the form that all people are ends in themselves, thus all people should be taken into account instead of just the author or creator. The fact that so far it is somewhat difficult to pay over the Internet does not change the fact that it can be done. Tools such as PayPal or Visa Electron can soon be used to pay easily over the Internet. Credit, and in some cases debit, cards can already be applied for this purpose, although the current verification systems offered by the companies selling products over the Internet are not necessarily very reliable and do not increase the potential customer's trust in using such systems.

F/OSS is a clear example on how a Kantian deontological thinking on IPRs would – and does – actually work in practice. Typical examples of this would include different GNU/Linux distributions. Any and all F/OSS fits the picture though. The typical situation in F/OSS is that the software can either be bought from the distributor as a package or downloaded through the Internet. The latter choice does not benefit the distributor (whether creator or other) directly, although it might through publicity, but that is left to be chosen by the user, the free choice of the feeling of duty the user has (or does not have). GNU/Linux distributions can be downloaded or bought (see e.g. <http://www.novell.com/linux/suse/> or <http://www.redhat.com/>, in the latter Fedora is the downloadable version) or CC-licensed books (see <http://creativecommons.org/>) of which can be downloaded for free or be bought or a donation to the author can be made.

There are examples of other digitally distributable material in the Internet which do adhere to the Kantian idea of choosing to follow the moral code. For example comic strips one can read whether one pays or not. One can *choose* to pay either what is asked or what one sees as morally right (see e.g. <http://ars.userfriendly.org/users/choosesponsorlevel.cgi>, <http://chugworth.com/comic.php> (PayPal donate button) or <http://www.ctrlaltdel-online.com/index.php?t=static&bd=support>). There are some technical problems with the payments still, but these are temporary and can be solved. The digital world opens up a possibility to do what has previously not been possible, especially if one takes into account the costs which are only after the immaterial is created. Theoretically one could have asked for only the material and shipping costs and a voluntary donation on top of that. In practice, however, the need for large infrastructure investments in the form of book stores, factories to produce the product, transportation, warehousing and so on, this has been impossible. In the digital world these costs are typically negligible. The user can decide what kind of profit the creator, as an end in themselves, requires for the change to be fair.

The creator of the immaterial can also quite easily set what they consider to be a reasonable average pay. The user can then follow this according to their voluntary choice to follow the universal law of duty to consider the creator of the immaterial as an end in themselves.

Yet another possibility is the benefits gained by first to market, which would be relevant for embedded systems or other immaterial creations which can not be

shared mainly in electronic form but need some other media. Examples of this can be found from the industry. The mobile phone Nokia 7110 was a typical example of first to market being big enough motivation to complete a technology capable product. The WAP technology was not available only to Nokia, yet it was a strong enough reason to be considered worth producing a product around.

This kind of system would clearly rise from the duty of the users of the immaterial towards the creator which would be according to the thoughts of Kant, not from the external, but rather internal force of law. For Kant, it seems obvious that doing one's duty even if one does not need to and especially if it is difficult to do, deserves more praise than when one does right easily or when one is forced to do right anyway. We have no way to verify whether acting right in a situation where it is easy is done out of duty or just because it is easy and in a situation where it is done because of force (as it is, when it is legally mandated), there is no need for one to feel it as one's duty at all – the potential to avoid punishment is in itself a valid enough reason without any reliance on duty what so ever. (Feldman, 1978.)

The user can also proportion the fee they think fit. From a poor third world person with barely access to computers at all, no great payment could be expected, whilst persons from the post-industrial countries would not be ethical if they did not give at least something. This would also help the situation in between countries in making the immaterial more available to those who cannot afford to pay (much) for it without forcing them to break international treaties such as TRIPS (Kimppa, 2005b), which is coming to effect even in the poorest countries in 2006.

THE FUTURE OF THE FREE AND OPEN SOURCE SOFTWARE

The future of the F/OSS looks grim, however. DMCA (Digital Millennium Copyright Act) has already been used to not only prevent reverse, but also forward engineering. The Vivendi vs. BnetD case where the server program could not be even forward engineered due to the DMCA is a case in point (see e.g. Corante, 2004). A DVD player cannot be distributed with GNU/Linux software distribution in the USA because it decrypts the DVD, which again is against the DMCA (on the case see e.g. Elkin-Koren, 2000) and the same applies to music distributed by iTunes (see e.g. CNN, 2003). The DMCA can be used to successfully block the free and open development of software and keep the user's only means. It interprets the prevention of anticircumvention of digital protection of software too broadly (Spinello, 2003).

Trusted Computing together with DRM poses another problem. If every released version of a program must be trusted computing verified, the "release early, release often" philosophy which keeps the F/OSS community going will not be able to be used. The benefits from releasing a version of a F/OSS software are numerous from getting more coders to seeing more bugs (Raymond, 2001). The costs of the verification would ensure most F/OSS software not to be written nor would many of the versions be released for open development and bug searches, since they would not be trusted computing verified. (Anderson, 2003.)

Software patent is going to be another problem for F/OSS (Lessig, 2002). It is easy to see how patented features (such as one-click shopping, see e.g. FSF, 2001 or Spinello, 2003)) are going to be included in software. Independent software developers, which most F/OSS developers are (Krishnamurthy, 2002), do not have the resources to check whether they are in violation of a patent or not (Stallman, 2004). This (along with the other examples mentioned) will reduce the competition and innovation in the field while supporting the big companies' interests and making entry to market more difficult (Spinello, 1985). Software patents can also be used to create applications which appeal to the public yet close the possibility to create such software in the F/OSS community. This would also see to it, that the F/OSS software does not gain success.

The previous shows that although the F/OSS is a viable option now, it will be severely hampered by the strengthening of the IPRs in regard to software. This will mean that even the possibility to create software in accordance to Kantian deontological ethics will likely be more and more difficult in the future unless a new IPR system – the kind of one the F/OSS naturally is – is taken into use.

CONCLUSIONS

From the previous we note that the use of the categorical imperative to justify IPR laws is false. The categorical imperative cannot be used to justify any laws due to the necessity of following one's duty voluntarily for an action to be in accordance with it. The categorical imperative can quite well be used to counter laws which are claimed to be in accordance, but actually are in contradiction with it. In this particular case the countering is done by demonstrating that the IPR laws specifically degrade the users of the immaterial to mere means since the law does not take them into account as ends in themselves. For a law, taking the individual user into account as an end would not be possible at all. To be able to take the users into account as individual persons, as specific ends in themselves, would mean that the law would have to be very generic. Such a very generic law would be the categorical imperative. But to follow a categorical imperative correctly, we need to do it voluntarily by recognising it to be our duty, not from any external reason. Also, when the formulations of the categorical imperative are reformulated, it is easy to see that they are actually not the kinds of universal laws which one would wish them to be.

The current IPR system however not only enables doing the unvirtuous, but strengthens the drive to do so. The user, of course, is left to do whatever they consider virtuous (or not), but at many times that is, if not impossible, at least very difficult if it does not happen to be along the lines of the IPR holder's view of what is virtuous and what is not. And that – IPR holder's view on what is virtuous and what is not by making the price of software X euros, pounds or dollars – is just what forces the user to do something which in itself is not necessarily virtuous at all i.e. choose either to not reimburse at all or buy at the set price. Choosing not to pay would of course be in contradiction with Kant's idea of doing the virtuous thing being especially easy to notice when it is difficult *if* paying the set price

would be considered virtuous. That is however not the case. Paying what is right for the software is virtuous.

A system (or in legal sense lack of) based in the system used by Free and Open Source Software would seem to take the Kantian deontological view and the three formulations of the categorical imperatives into account well. Unfortunately, it also seems that as an option it will not be available for the reasons presented in the previous chapter. This kind of development would undoubtedly produce different – but possibly better – new technologies than the current way. Something new, something better might be achieved were we to abandon the current IPR laws and approach the question of the immaterial from the point of view following our duty instead of the point of view of the force of law. To conclude, as Spinello (2003) summarises the views of Lessig and Litman, and from the Kantian deontological point of view presented in this paper, “the world would be a better place if we could somehow get by without them [copyright and other legal protections of the immaterial]”.

ACKNOWLEDGEMENTS

The author would like to thank Andy Bissett for excellent suggestions and comments to the content of the paper as well as proof reading a paper written by a person apparently not entirely fluent in English.

REFERENCES

Anderson, Ross (2003) Cryptography and competition policy: issues with 'trusted computing', in Proceedings of the twenty-second annual symposium on Principles of distributed computing, July 2003.

CNN (2003) Norwegian hacker cracks iTunes code, CNN.com International, Thursday, November 27, 2003. Available at <http://edition.cnn.com/2003/TECH/internet/11/27/itunes.code.ap/> (last checked April 28, 2005).

Corante (2004) Major DMCA/EULA Loss - District Court Clueless in BNETD Case, Corante, Tech News. Filtered Daily. October 01, 2004, Available at <http://www.corante.com/importance/archives/026273.php> (last checked April 28, 2005).

Drahos, Peter (1996) *A Philosophy of Intellectual Property*, Dartmouth Publishing.

Elkin-Koren, Niva (2000) The Privatization of Information Policy, *Ethics and Information Technology*, **2**: 201 – 209.

Feldman, Fred (1978) *Introductory ethics*, Englewood Cliffs, N.J: Prentice-Hall.

- FSF (2001) Boycott Amazon! Free Software Foundation, <http://www.gnu.org/philosophy/amazon.html> (last checked April 30, 2005).
- Grey, Thomas C. (1980) "The Disintegration of Property," in *Nomos XXII: Property*, J. Roland Pennock and John W. Chapman, (eds.), New York: New York University Press, 1980.
- Jantz, Ronald (2001) E-Books and New Library Service Models: An Analysis of the Impact of E-Book Technology on Academic Libraries, *Information Technology and Libraries*, Vol. 20, No. 2. Also available at <http://www.ala.org/ala/lita/litapublications/ital/2002jantz.htm> (last checked April 26, 2005).
- Johnson, Deborah G. (1985) Should Computer Programs Be Owned? *Metaphilosophy*, Vol. 16, No. 4, October 1985, pp. 276 – 288.
- Kant, Immanuel (1785) Originally *Grundlegung zur Metaphysik der Sitten*, several translations used, most commonly translated as *Groundwork of the Metaphysics of Morals* as in <http://www.swan.ac.uk/poli/texts/kant/kantc.htm>, last checked 4.11.2004, but e.g. Brendan E. A. Liddell's translation is called *Kant on the Foundation of Morality*.
- Kimppa, Kai K. (2004) Consequentialist Considerations of Intellectual Property Rights in Software and other Digitally Distributable Media. Ethicomp 2004, University of the Aegean, Syros, Greece, 14 to 16 April 2004.
- Kimppa, Kai K. (2005a) Intellectual Property Rights in Software – Justifiable from a Liberalist Position? Free Software Foundation's Position in Comparison to John Locke's Concept of Property in *Intellectual Property Rights in a Networked World: Theory and Practice* (eds. Richard A. Spinello & Herman T. Tavani), Idea Group Inc., Hershey, PA, USA.
- Kimppa, Kai K. (2005b) Socially responsible international intellectual property rights. To be presented in IFIP WG 9.2 Conference on Landscapes of ICT and Social Accountability, University of Turku, Finland, June 27-29, 2005.
- Krishnamurthy, Sandeep (2002) Cave or Community?: An Empirical Examination of 100 Mature Open Source Projects, *First Monday*, volume 7, number 6 (June 2002). http://www.firstmonday.org/issues/issue7_6/krishnamurthy/index.html (last checked April 30, 2005).
- Lessig, Lawrence (2002) *The Future of Ideas: The Fate of the Commons in a Connected World*, (First Vintage Books Edition), Random House, Inc., New York.

Lipinski, Tomas A. and Britz, Johannes J. (2000) Rethinking the ownership of information in the 21st century: Ethical implications, *Ethics and Information Technology*, **2**: 49 – 71.

Litman, Jessica (2001) *Digital Copyright*, Prometheus Books, Amherst, NY. The excerpt used also available at <http://www.msen.com/~litman/digital-copyright/Ch5.html> (last checked April 30, 2005).

Spinello, Richard A. (1995) *Ethical Aspects of Information Technology*. New Jersey: Prentice-Hall, Inc.

Spinello, Richard A. (2003) The future of intellectual property, *Ethics and Information Technology*, **5**: 1 – 16.

Stallman, Richard (1992) Why Software Should Be Free.
<http://www.gnu.org/philosophy/shouldbefree.html>
(last checked November 8, 2004).

Stallman, Richard. (1994) Why Software Should Not Have Owners.
<http://www.gnu.org/philosophy/why-free.html> (last checked April 30, 2005).

Stallman, Richard (1996) Re-evaluating Copyright: The Public Must Prevail. Oregon Law Review, Spring 1996. Also available at
<http://www.gnu.org/philosophy/reevaluating-copyright.html>
(last checked November 8, 2004)

Stallman, Richard (2000) Freedom-Or Copyright?
<http://www.gnu.org/philosophy/freedom-or-copyright.html>
(last checked November 8, 2004).

Stallman, Richard (2004) Fighting Software Patents - Singly and Together.
<http://www.gnu.org/philosophy/fighting-software-patents.html> (last checked April 30, 2005).

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Paper V

Kimppa, Kai K. (2004), Intellectual Property Rights – or Rights to the Immaterial – in Digitally Distributable Media Gone All Wrong? In Lee Freeman and Graham Peace (eds.), *Information Ethics: Privacy and Intellectual Property*, Idea Group Publishing, Hershey, PA, USA.

Original available from publisher.

- Paper VI** Kimppa, Kai K. (2006), Socially responsible international intellectual property rights. IFIP WG 9.2 Conference on Landscapes of ICT and Social Accountability, University of Turku, Finland, June 27-29, 2005. In Zielinski, C, Duquenoy, P. and Kimppa, K. (eds.) The Information Society: Emerging Landscapes, IFIP International Federation for Information Processing, a Springer Series in Computer Science, Springer Science+Business Media, Inc. NY, USA.

Socially responsible international intellectual property rights in software and other digitally distributable material

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Abstract

In this paper relativistic ethical theories are handled in relation to intellectual property rights (IPRs). Different cultural traditions are a descriptive fact, and many such traditions—past and present—will be presented. It will be shown that the current Western versions of IPRs are offered as the only viable options in negotiations in international organisations such as the World Trade organization (WTO) and the World Intellectual Property Organisation (WIPO) as well as in uni-, bi- and other multilateral negotiations by most Western countries. Free and open source software (F/OSS) and IPR systems similar to it are offered as a possibilities to respect the local traditions, although any local traditions are encouraged to be tried as options to the cultural homogenisation which the international treaties offer instead.

Keywords

Social responsibility, IPRs, immaterial, tolerance, relativism, F/OSS

1. Introduction

First, relativism and its relationship—if any—to tolerance will be looked at. It will be shown that relativism *per se* does not promote tolerance, but since tolerance is an important value of liberal Western democracies and at least cultural relativism an established fact, it will be claimed that other IPR traditions should be given a chance to show whether they promote the good of mankind or not.

Intellectual creations make a post-industrial nation. If a nation has poor access to and poor levels of intellectual creativity in the form of immaterial creations, it is unlikely that the nation in question will rise even to an industrialised, let alone post-industrial level. There are many historical examples of how the access to immaterial creations has been handled by various strategies ranging from a no-IPR policy, through government control of IPRs, to a policy of enforcing IPRs strongly within a country, but not respecting external IPRs (i.e. those in other countries) in Western and other countries during their industrialisation. Some of those will be examined in this paper. A surprising similarity can be found between the current IPR traditions of developing countries and those countries which have developed recently, with approaches that could be of benefit to the developing countries. Countries in similar situations to recently industrialized Western countries today include nations such as Brazil, China and other second world countries which have been working on rising from the status of a second world country to that of a first world country for some time. Third world countries generally do not have the infrastructure to fully exploit either a strong IPR policy or to benefit from the possibilities a no-IPR policy would grant them if it was possible to establish such policy. Even the poorest nations could benefit some, however, and could possibly enhance their best and brightest possibility to be included in the global society of immaterial creations.

Subsequently, the international treaties and organisations will be examined and their one-sidedness explored. Finally, alternative possibilities to the system of IPRs promoted by Western countries will be considered. Some problems and possible future directions of IPRs are mapped in the concluding sections.

2. Relativism

It is difficult to define what constitutes a culture. A typical first example would be a nation (state). Nations are not, however, homogenous groups but are constituted from various different groups which may interact with one another. Nor are cultures limited within national boundaries. The groups within and between nations can be native tribes, hacker communities, business leaders, university students, religious groups etc. These groups do, however, typically share at least some values to some degree. Nonetheless, empirical facts from sociological and anthropological studies verify that different societies with different values exist. Empirical facts do not mean normative, ethical truths nor does tolerance necessarily emerge from acknowledging that different cultures have differing values. (See e.g. Feldman, 1978; Pietarinen and Poutanen, 1997 or Weggert and Al-Saggaf, 2003 among many others.)

Tolerance for different value sets has, however, been one of the most treasured Western values (based on the liberal tradition of the Western democracies). Different values are considered as enriching the societies. It is strange how this does not seem to hold between societies when it comes to the values associated to

immaterial creations. Tolerance should, however, be taken into account as an ethical way to function when designing IPR systems which are worldwide. It is known as a descriptive fact that various different traditions in regard to IPRs exist in different societies (Alford, 1995; Spinello, 1995; Chang, 2001a). Why should others be not allowed to find their own ways when it comes to creating ways to handle IPRs? This of course does not mean that the Western societies ought to let other cultures dominate their thinking either. Nonetheless, if tolerance is a Western value, the Western societies should let other cultures define their ways of dealing with IPRs and respect that decision instead of forcing all societies to adopt the same IPR systems through organisations such as WTO and WIPO (TRIPS coming into effect even to the poorest nations in 2006, see Chang, 2001a). In addition, the other systems could be examined: maybe something could be learned from the choices made. These decisions might actually aid the creation of intellectual works in Western societies as well.

Even if relativistic moral theory is accepted, moral utterances of other groups or societies can be made (Pietarinen and Poutanen, 1997). In relativistic moral thinking (be it conventionalism or cultural relativism) values are thought to come from the values of the group with which the values are shared (Feldman, 1978). Thus the values are not objective nor are they claimed to be right for those belonging to other groups. Other groups should not be forced to share the views of the first through international treaties or pressure by uni- or bilateral negotiations, but rather by convincing them that the expressed moral opinions are true even from their own moral premises.

Western societies are participating in cultural imperialism when forcing their own IPR systems onto other countries. As Weckert and Al-Saggaf (2003) put it: "A culture might dominate, not because it is 'better' as a culture, but because it is the culture of a group who are economically and militarily strong." This does not mean that cultures with lesser or more free IPRs would be morally wrong in their attitudes towards immaterial creations even if the differing view would not necessarily survive the 'fight' between different views on IPR laws. They might still promote a better and more ethical way to treat the users and even the creators of the immaterial than the Western-promoted ones do.

Freedom of choice in how the IPR laws are made should be the norm instead of the exception. Now the various IPR legislations are forced in place by bilateral (or rather unilateral) negotiations by the stronger (See e.g. Alford, 1995 on how China (both continental and Taiwan) has been treated). If we are worried about being ethical, cultural imperialism "cannot be defended simply on the grounds of 'survival of the fittest'" (Weckert and Al-Saggaf, 2003).

Different interpretations of IPRs should be respected. This would be both tolerant and respecting others views about the way they want to build their societies. Some societies, such as that of China, have had a culture in which plagiarism is seen as

the (sometimes only) way to give credit for a worthy thought (Alford, 1995). Other societies, often native ones, see the societal ownership of immaterial creations as being the right way (Shiva, 2003).

3. History

Until very recently, the idea behind IPRs in the Western societies has also been to promote the advancement of the societies. Examples of this are the recent practices of the patent applications of “first to file” instead of “first to invent”. The Western societies have copied intellectual capital such as the technologies of printing, paper, powder, etc. from various other cultures. The result has often been that the IPRs have been claimed by those who introduced the technologies in the countries to which they were copied, instead of by the inventor in the countries where they were created. As Chang (2001a) puts it: “patenting of *imported inventions* by their nationals was often explicitly allowed” (emphasis in original). Nor have the inventions been introduced to public domain in the society to which they were introduced, were the original inventors or their descendants not eligible for the protection any more.

Throughout history, countries in the process of industrialisation have tried their best to ignore at least any foreign IPRs (see, e.g., Alford, 1995 or Drahos, 1996). Originally patent rights were not given to IPR creators in UK (and elsewhere in Europe, see Chang 2001a), but rather to anyone who brought forth new inventions in the country. A similar situation prevailed in the US regarding copyrights (as foreign copyrights were not acknowledged), until the US was no longer a net benefactor of copyright (foreign copyrighted materials did not receive, even formally let alone in reality, protection in US until 1891) (Alford, 1995; Chang, 2001a and 2001b). At the same time, however, the US was strongly driving for stronger international patent rights (Chang, 2001b). Many Western countries either did not have effective IPR laws during large parts of the years of their industrialisation (e.g., Netherlands and Switzerland, which for a long period had no patent laws at all) or did not respect at least foreign IPRs (for a more detailed description see Chang 2001a). Japan after the Second World War did not enforce strong IPRs until its own rate of IPR creation rose to a level similar to that in other industrialised nations, turning it into a net benefactor in granting IPRs (See e.g. Pirages, 1996 or Chang, 2001a).

In these examples of Western countries and their attitudes to IPRs throughout history, IPRs were not granted to foreigners or even to nationals of the countries themselves or were considerably shorter and more narrow (see, e.g., Spinello, 1995 or Lessig, 2001) in the field they protected, for the specific reason that this benefited the society at that time. Such examples show that the moral (and economic) grounds for IPRs can and do change over time. In US, the original term of copyright was 14 years, renewable once for another 14 years. This was changed in 1831 to 28 years, once renewable for another 14 years and so forth until in the

Bono Copyright Extension Act it was lengthened to the lifetime of the creator plus 70 years (for a more detailed description, see Henderson, 2003).

It would be absurd to claim that, were Japan, Taiwan or South Korea still Third or Second world countries, this would be better even for the West, let alone the people living there. One of the reasons this is not so the case, is that, well before the aggressive bilateral negotiations started in the early 80s, these countries were able to use the intellectual capital created in the more-industrialised countries (Granstrand, 1999; Chang, 2001a). They were able to establish their own production of cars, electronics, clothing etc. by performing what could be called industrial espionage in Western factories and searching through filed patents in patent offices. Building their own factories producing similar products and then excelling in many of the fields to get on par with and then past the American or European producers.

Today, IPRs cannot be copied similarly due to us being in a post-industrial rather than industrial era, and most of the actual useful material is not in the form of factories or machines anymore. Now it is in the form of immaterial creations; software, inventions, and chips which cannot be copied just by looking at them, as well as digitally distributable material. It is especially difficult to copy the way software works since only the object code is released in commercial creations. We are already seeing problems with countries such as China which are trying to reach the industrial state of Western countries—with factory conditions reminding us of the industrialisation of UK - industrialisation causing both local and global pollution, with much of the benefits flowing to Western capital owners instead of benefiting the local economy etc. It might be possible to bypass some of that industrialisation in at least the Third World countries (if not in China or India anymore). This would consume fewer natural resources, since it would lead straight into the post-industrial situation where intellectual capital could be more valuable to all societies combined and use less resources needed industrial production like oil through enhanced products and at least partly by pass industrialisation. This would also benefit the Western world in polluting less, creating less global warming and other non-beneficial effects in the world and yet rise the living standard of people living in these particular countries. It would create a situation of raw-material production (which already exists in developing countries) combined with post-industrial and some industrial production.

4. Other solutions to the immaterial

Until recently countries such as Brazil (see e.g. Stallman, 2004 on how Brazil still seeks measures for curing the digital divide through using F/OSS and how the US voted against including such solutions in the World Summit on the Information Society (WSIS)), China and other Second World countries have tried to oppose foreign IPRs. This was partly a result of their own national histories in regard to IPRs and of course because they consider acknowledging foreign IPRs as being

detrimental to their own development. This holds even more true for Third World countries, which have virtually no IPRs of their own, yet are expected to follow international treaties supporting the existing IPRs of industrialised and post-industrial countries.

Many societies, especially in the developing countries, see the need to spread new innovations in the society as being more important than granting IPRs (Steidlmeier, 1993; Spinello, 1995). Malaysia, for example still sees the good of the society important enough to override IPR holders' rights to software in some situations. For educational use in schools or for encouraging computer use in general, they have as recently as 2002 considered letting pirated software to be used in schools and social organisations. (Weckert and Al-Saggaf, 2003) As Weckert and Al-Saggaf put it: "This suggests a quite different view of the importance of intellectual property." Intellectual property is not considered as valuable as other goals in society. The learning to use and create immaterial is considered, at least in these cases a higher value.

A recent example of non-Western countries wishing not to have the international Western type IPRs applied universally and questioning the idea of strong IPRs resulting to strong development can be found in the motion left to WIPO by Argentina, Bolivia, Brazil, Cuba, Dominican Republic, Ecuador, Egypt, Iran, Kenya, Peru, Sierra Leone, South Africa, Tanzania and Venezuela (WIPO, 2005). In the motion, the "Group of Friends of Development" is calling for "promoting development and access to knowledge for all" exactly in the form of lesser and more localised IPR laws.

F/OSS groups have chosen to license their immaterial creations under various licenses (for the actual licenses, see Free Software Foundation, 2001) which enable anyone to use both the source and object code and documentation for the software once it is released. There is a large group of software creators who see this as the correct way of treating immaterial creations. The same is made possible for other forms of immaterial creations by the Creative Commons (www.creativecommons.org) licenses.

Contemporary examples would include plant patents for which the knowledge is often considered socially owned intellectual capital of a tribe. After being introduced in pharmaceutical form, even the tribe's members, who often are at best paid baubles for the information, must pay to use it even though they were the original inventors of the information (On 'biopiratism', see e.g., George, 2003 or Shiva, 2003). The current international IPR treaties which the countries in which this happens have been forced to accept do not take into account communal ownership of knowledge. Nor could it be taken into account in a fair way due to the imbalance of the negotiation situation even if the communal patent or communal copyright were introduced. The situation is in a way very similar and yet the opposite of the former introducing of an invention. It is similar in the sense that it

allows the one who introduces the invention to use it (and even excludes the original inventors). It is the opposite in the sense that it now applies also to the country from which the knowledge was gathered. Now that the exploiter is a beneficiary also in the country which is being robbed of their intellectual capital, the introducer can gain even wider access to IPRs which even now should belong to others.

An analogy with the HIV/AIDS cures in South Africa illustrates the situation. Western societies have ensured (to varying, but mainly functional, degrees) that their citizens have access to HIV/AIDS cures, but intellectual property rights have (in part) seen to it that nations with lesser capabilities to purchase IPR protected medicines have few alternatives. Counter to treaties in IPRs (TRIPS, George, 2003) signed by the South African government, South Africa none the less decided not to pay licensing fees to Western pharmacy companies if they didn't lower the prices of the medicines to a more acceptable level, which they then did. Drug production in various other countries such as India or Brazil also breaks these IPR treaties. Many of the drugs used in South Africa are imported from these countries. Even though some of the medicines produced in these countries end up in the markets of industrialised countries, the amount is negligible compared to the potential rises of up to 99% in the prices of the medicines (see e.g. IPS, 2004).

The same is apparent in access to information. Those with fewer resources have less access to information but are expected to follow the rules of the haves. This results in a situation where the advances gained by the haves do not benefit the have-nots even in the long run as is claimed by those subscribing to the 'trickle down theory' of the benefits eventually reaching the poor as well (see Kimppa, 2004a for a more thorough handling of the issue).

The percentages of so-called software piracy (another very loaded word) in countries which have or have had lesser or no IPRs in place and among population groups such as students (notably having less income than many other groups of the society) promotes the thought that maybe there is something wrong with our IPRs rather than with the people they drive to use 'pirated' software. A more moderate approach in IPRs might well propel the economies of developing countries to rise.

5. International treaties

To the best of their ability, organisations such as WTO (through TRIPS), international monetary fund (IMF) and WIPO have tried to fight for the privileges of the IPR holders. WTO and IMF for example are strongly promoting the neo-liberal thinking which has as one of its main component strong IPR legislation as global solution to the problems of the third world (Chossudovsky, 2001, for the problems of justifying IPRs based on the liberal tradition, see Kimppa, 2004b, 2005a and 2005b). It does not seem that these organisations are be interested in the rights of the creator of the immaterial, nor of the user of immaterial, but rather in

the interests of the organizations which hold and distribute the immaterial and the interests of the countries which create most of the immaterial at the moment (against those who do not have IPRs). The strengthening, lengthening and enlarging of the area of protection of IPRs benefits the industry, but does not enlarge the distribution of the products. It protects the IPR owners' rights instead of the IPR creators' rights. For the creators, the wider distribution which shorter IPRs would enable, could in many cases be of more benefit than the longer protection. The software business in any case hardly ever grants any rights to the creator of the immaterial but rather they are transferred directly to the employer. This leads to a one-sided view, which hardly can be called socially responsible in the global scale. The rights of the people of the countries which do not hold immaterial creations and rights in large amounts are not taken into account. The rights of these people to do with as they please with their material based on that immaterial is strictly limited due to them not being able to use the immaterial to improve their situation. In a Lockean liberal sense, this would seem wrong (Kimppa, 2005a). Also, the consequences of this kind of politics seems to strengthen the current divide in the prosperity that would be available (Kimppa, 2004a and Kimppa, 2005b). Finally, the ethical aspect of relying on laws and regulations in a situation which would rather call for ethical behaviour in the part of the potential users and respecting their rights seems to be forgotten (Kimppa, 2005b).

Whatever is said about the 'democracy' of WTO where, it is claimed, all the countries are in similar situation when each has a vote, the numbers of lobbyists from the industrialised countries seems to be equal or even exceeding the amount of country representatives, while 40 countries either do not even have one regular representative or share a representative with another country (George, 2003). If the negotiation situation would be more equal, we might be able to find a globally acceptable solution to IPRs, although, owing to different values in different societies, even that is doubtful.

The situation is similar within WIPO. Lessig (2001) provides us with an example on how the lobbying in these organisations works:

“It is an iron law of modern democracy [which WIPO and WTO theoretically are!] that when you create a regulator, you create a target for influence, and when you create a target for influence, those in the best position to influence will train their efforts upon that target.” “Thus, commercial broadcasters—NBC and CBS in particular—were effective in getting the government to allocate spectrum according to their view of how spectrum should be used. (This was helped *by the broadcasters' practice of offering free airtime to members of Congress.*)” (Lessig, 2001.)

It seems, thus, that expecting the current second and third world countries to respect the IPRs of the industrialised and post-industrial nations is only a way to keep the status quo by limiting the possibilities of these countries to climb to an

equal level in the world. This might—in the short run—be beneficial to certain groups in the Western world. But even for the Western world it is clearly not beneficial in the long run. For who would seriously think anyone better off if, for example, Japan, Taiwan or South Korea had been held back from using the Western IPRs during their (re)industrialisation after the second world war? This does not even begin to consider all the negative aspects this kind of development holds for the currently industrialising or third world countries.

6. Alternative ways

To a large degree, the Eastern and other Second World IPR creators in the software business now sell their creativity to IPR holders in Western societies. Through this practice they are not helping their own societies nearly as much as they could, were the creations and their profits staying in their own societies. The situation is similar to that of tourism bringing all the materials and even workers to a holiday resort from abroad and also taking all the profits back abroad. The local economy hardly sees a difference except in its resources being exploited. There is a similar trend with the creation of software and other digitally distributable material (DDM) as well. In the F/OSS movement the situation would be different. If local programmers create software—and luckily they do—for F/OSS instead of for the proprietary software companies, even local software can be used anywhere. Any local software can be modified to benefit any society or social group, whether the software is made in India or in Finland. This is clearly not true for the proprietary software in the same amounts as it is true for F/OSS.

If all software would function as F/OSS we would not have this problem, for all software—or other DDM for the matter—could be used to benefit the local needs and wants instead of the large corporations and their shareholders it is benefiting now. Unfortunately for this kind of creativity, the various forms of digital millennium copyright act (DMCA, 1998; European copyright directive of 2001, 2001) and software patents are trying to stifle this as are the lengthening and strengthening of IPRs in other ways.

This is also why the ideological basis behind F/OSS and especially FSS (Free Source Software) is more important than it first appears. This is why we should try to encourage ideological thinking about software creation and DDM creation instead of just plain practical thinking. If we are not ideological we do not care about the good of the people but only about what happens to be good for us right now, and this can hardly be considered as being much more ethical than the thinking of proprietary companies in which the only aim is to increase the shareholder value. This kind of behaviour cannot in good conscience be considered socially responsible.

Just releasing constraints on IPRs will of course not bring about the change for better. Other measures, including some which are actually being taken at the

moment (such as forgiving the debts of at least the poorest Third World countries) must be done. Unfortunately that does not help the Second World countries, nor does it help countries to bypass the industrialisation stage. Other measures must be taken as well if we want to improve the situation in the long run – one of which would be to release all restrictions on using IPRs by the poorest countries.

Even though the no-IPR policy might produce the best results, whatever method is chosen by the countries should be respected. This is true, whether the chosen way is to adopt an IPR policy similar to the current Western one, or rather one that resembles the way countries that are currently post-industrial treated other countries' IPRs during their industrialisation, or the no-IPR policy suggested here.

7. Conclusion

Most countries did not either have strong internal IPRs nor exhibit much respect for international IPRs during their industrialisation. The European countries and US were in the first wave of this practice. The second wave included the East Asian 'new tigers', such as Japan, South Korea, Taiwan and Singapore, refining the practices the previous industrialising countries used. (Chang, 2001a) The current situation differs from both of these. Copying production methods and processes has become ever harder in general, due to their complexity and, in software in particular, due to the object code being released but the source code being held as a trade secret. Fortunately, the use of digitally distributable material (DDM), be it software or anything else, is easy. If treaties such as TRIPS were not forced on Third World countries, this could be used to the advantage of developing countries in many ways. Some of these, like the IPR policy adopted in Iran, would closely follow the practice in previous times of granting internal IPRs but not enforcing external ones. Others would surely adapt ways closer to the ideas in practice in countries like Malaysia, where the social good is considered more important, and thus the usage of IPR protected material at least in selected parts of the society could be free.

Why would software and DDM specifically be of benefit to the development of immaterial creations in Second and Third World countries? The copying of such materials is the easiest form of copying—any DDM can be copied and recopied if it is not specifically obstructed by digital rights management software. On top of this, we have a thriving F/OSS culture which is already doing things similar to what is suggested in this paper. The F/OSS movement could offer some ways to handle IPRs in these new situations. The concept of being paid for work done, instead of being granted rights to the intellectual material could be taken up. This would produce local jobs enhancing and implementing software and creating other digitally distributable material. The way to support this kind of action should be through proving that it would work rather than forcing the developing societies to accept any particular way of using and creating their own immaterial creations. A moratorium on the enforcement of the IPRs of the industrialised countries would be

one of the necessary steps for the Third World to be able to catch up with the industrialised countries while by-passing some of the problems inherent in industrialisation. During the moratorium, an analytical discussion should be conducted to determine which would be the best way for the developing country to move towards IPRs, whether it would be the current one-for-all system proposed through the WTO, or whether it would be something different depending on the needs of the given society. Honouring the IPR systems others choose to implement would be ethical, tolerant and socially responsible in helping the developing countries create their own immaterial creations.

References

Alford, William P. (1995). *To steal a book is an elegant offence: Intellectual property law in Chinese civilization*. Stanford, California: Stanford university press.

Chang, Ha-Joon (2001a). Intellectual Property Rights and Economic Development: historical lessons and emerging issues, *Journal of Human Development*, Vol. 2, No. 2, 2001, pp. 287—309.

Chang, Ha-Joon (2001b). A background paper prepared for World Industrial Development Report of the UNIDO.
<https://www.unido.org/userfiles/hartmany/IDR-chang-draftpaper2.pdf>
accessed 11.4.2005.

Chossudovsky, Michel (2001). *Köyhyyden globalisointi: Maailmanpankin ja IMF:n uudistusten vaikutuksia* (originally printed in 1999, *Globalisation of Poverty*), Otavan Kirjapaino Oy, Keuruu.

DMCA (1998). *The Digital Millennium Copyright Act*.
<http://www.gseis.ucla.edu/iclp/dmca1.htm> accessed 15.02.2004.

Drahos, Peter (1996). *A Philosophy of Intellectual Property*. Dartmouth Publishing.

European copyright directive of 2001 (2001).
<http://europa.eu.int/cgi-bin/eur-lex/udl.pl?REQUEST=Seek-Deliver&COLLECTION=oj&SERVICE=all&LANGUAGE=en&DOCID=20011167p0010> accessed 15.02.2004.

Feldman, Fred (1978). *Introductory Ethics*, Prentice-Hall Inc. New Jersey.

Free Software Foundation (2001). *Categories of Free and Non-Free Software*,
<http://www.gnu.org/philosophy/categories.html> accessed 15.4.2005.

George, Susan (2003). Maailmankauppajärjestö kuriin (originally printed in 2001, Remettre l'OMC à sa place), Gummerus Kirjapaino Oy, Jyväskylä, Finland.

Granstrand, O (1999). Corporate Management of Intellectual Property in Japan, *International Journal of Technology Management*, Special Issue on Patents, edited by Edwin Mansfield.

Henderson, K. A. (2003). J.Lo and the Intellectual Commons: An exposition on copyright expansion in the digital age, Proceedings for CEPE 2003 and Sixth Annual Ethics and Technology Conferences, Boston College, June 25-28, 2003 pp. 120—127 of Sixth Annual Ethics and Technology Conference proceedings.

IPS (2004) Health: Global Poor to Suffer If Denied Indian Generic Drugs – Experts <http://www.ipsnews.net/interna.asp?idnews=27563> accessed 27.02.2005.

Kimppa, Kai K. (2004a). Consequentialist Considerations of Intellectual Property Rights in Software and other Digitally Distributable Media. Proceedings of the Seventh International Conference, Ethicomp 2004, Challenges for the Citizen of the Information Society, University of the Aegean, Syros, Greece, 14 to 16 April 2004.

Kimppa, Kai K. (2004b) Redistribution of Power from Government to Intellectual Property Rights Owners and Organizations Looking After Their Interests: Justifiable from a Liberalist Position? – The Free Software Foundations Position Compared to John Locke's Concept of Distributable Rights. Second Summer School by IFIP WG 9.2, 9.6/11.7, 9.8, Risks and Challenges of the Network Society. 4-8 August 2003, Karlstad University, Sweden. Preceedings available at: <http://www.cs.kau.se/IFIP-summarschool/preceedings/Kimppa.pdf> In Penny Duquenoey, Simone Fishcer-Hübner, Jan Holvast & Albin Zuccato (eds.) Risks and Challenges of the Network Society. Karlstad University Press, Karlstad, Sweden.

Kimppa, Kai K. (2005a). Intellectual Property Rights in Software—Justifiable from a Liberalist Position? Free Software Foundation's Position in Comparison to John Locke's Concept of Property. In Richard A. Spinello and Herman T. Tavani, (eds.) Intellectual Property Rights in a Networked World. Information Science Publishing (an imprint of Idea Group Inc.), Hershey, PA, USA.

Kimppa, Kai K. (2005b) (in print). Intellectual Property Rights – or Rights to the Immaterial – in Digitally Distributable Media Gone All Wrong? Lee A. Freeman and Graham Peace (eds.) Information Ethics: Privacy and Intellectual Property. Information Science Publishing (an imprint of Idea Group Inc.), Hershey, PA, USA.

Lessig, Lawrence (2001). The Future of Ideas: The Fate of the Commons in a Connected World, Vintage Books, New York.

Pietarinen Juhani and Poutanen, Seppo (1997). *Etiikan teorioita* (Theories of ethics, not translated), Turun yliopiston offsetpaino, Turku.

Pirages, Dennis (1996). Intellectual Property in a Post Industrial World, *Science Communication*, Vol. 17, No. 3, March 1996, pp. 267—273.

Shiva, Vandana (2003). Voiko tietoa omistaa? Patentit kehitysmaiden uhkana (originally printed 2001, Protect or Plunder? Understanding Intellectual Property Rights), Dark Oy, Vantaa.

Spinello, Richard A. (1995). *Ethical Aspects of Information Technology*, Prentice-Hall, Inc. New Jersey, USA.

Stallman, Richard (2004). World Summit on the Information Society, Originally published on Newsforge, available at <http://www.gnu.org/philosophy/wsis.html> accessed 27.02.2005.

Steidlmeier, P. (1993). The Moral Legitimacy of Intellectual Property Claims: American Business and Developing Country Perspectives, *Journal of Business Ethics*, February: 157—164.

Weckert, John and Yeslam Al-Saggaf (2003). Online Cultural Imperialism: Is it an Ethical Issue? *Information, Communication & Ethics in Society*, Vol 1, Issue 1, 21—29, Jan 2003.

WIPO (2005). Proposal to establish a development agenda for WIPO: an elaboration of issues raised in document WO/GA/31/11, Inter-sessional intergovernmental meeting on a development agenda for WIPO, First Session, Geneva, April 11 to 13, 2005, available at http://www.wipo.int/edocs/mdocs/mdocs/en/iim_1/iim_1_4.pdf accessed 4.5.2005.

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ISBN 978-952-12-1843-9

ISSN 1239-1883