

# THE PRODUCTION, USE, AND DISSEMINATION OF KNOWLEDGE AND INFORMATION IN THE GLOBAL COMMUNICATIONS NETWORK

by

LÁSZLÓ FEKETE\*

*It goes without saying that knowledge and information are the most valuable commodities in the new economy. Though knowledge and information as private goods could provide great business opportunities for rights holders in the global communications network, they exhibit the distinctive characteristics of public goods. Therefore, the commodification of knowledge and information requires a strict proprietary regime which restrains free access to them and enforces effective legal protection over their production, use, and dissemination. If the accessing and using rights of the individual users were free and unlimited the legal entitlements of rights holders would be worthless. Besides this common belief, many legal scholars, philosophers, scientists, and social scientists also emphasize that knowledge and information are social and cultural products made, shared, settled, and revised in democratic discourses, open scientific debates, and the pragmatic self-understanding of society. Therefore, the basic notions of mainstream economic paradigm about scarcity, exhaustibility, rivalry, and excludability, which are the distinctive characteristics of tangible goods, can be hardly applicable to the production, use, and distribution of knowledge and information. In some respects, knowledge and information are not fit into the framework of neoclassical economics.*

## KEYWORDS

*Intellectual property, public domain, knowledge and information, tangible and intangible goods, knowledge spillovers, public goods, private goods, regulatory giving, private ordering, distributive justice, holdup problem, endowment effect, externality problem, natural rights theory, utilitarianism*

---

\* Email: [lfekete@ella.hu](mailto:lfekete@ella.hu)

„The ideas which come to your mind in reading my book are protected by copyrights. To think over them is prohibited without the prior permission of the author.“  
Viktor Pelevin, *Generation 'P'* (1999)

## **1. PUBLIC VERSUS PRIVATE KNOWLEDGE**

It goes without saying that knowledge and information are the most valuable commodities in the new economy. Though knowledge and information as private goods could provide great business opportunities for rights holders in the global communications network, they exhibit the distinctive characteristics of public goods (Samuelson 1954, 387-389; Stiglitz 1999, 308-325). Therefore, the commodification of knowledge and information requires a strict proprietary regime which restrains free access to them and enforces effective legal protection over their production, use, and dissemination. If the accessing and using rights of the individual users were free and unlimited the legal entitlements of rights holders would be worthless.

The pervasiveness of the new information and communications technologies as powerful learning and knowledge sharing systems and the digitalization of knowledge and information goods facilitate their production, use, and dissemination, and at the same time make difficult and expensive to enforce effective proprietary regulation and control over them. In addition to the difficulty and the high transaction costs of the legal enforcement of proprietary rights, the social climate does not seem to be particularly supportive to the propertization of knowledge and information in the global communications network. In spite of the current trends of restrictive legislation and jurisdiction as well as of expansive and unprecedented private legislation of the rights holders, society persistently tends to believe that knowledge and information mainly belong to public goods and resists accepting their growing private appropriation and effective proprietary control over their production, use, and dissemination. Briefly, knowledge and information are usually conceived as a common pool of symbolic resources for the cultural reproduction of society. So, people are not willing to pay for knowledge and information goods to regain what they believe to be rightfully entitled to know, use, and contribute to. Without the empowerment of the possession and exercise of these basic individual rights and freedoms, people merely are kept aloof from becoming active, informed, and engaged citizens of political-cultural community.

The rights holders also endeavor to control the flows of all forms of computer-mediated contents by means of the private ordering of accessing and using rights of users in combination with copy-protection technologies, di-

gital rights management systems, platform dependent applications, micro-payment system, zoning, and so forth (Benkler 2006, 397-459). They go well beyond the initial rights and legal entitlements originally assigned to them by the law and habitually infringe the basic constitutional rights and autonomy of the users, like freedom of expression, the right to privacy, and the right to fair trial by taking advantage of the opportunity of forum shopping via private contracts (Balkin 2004, 19-22; Boyle 2000, 345-350; Guibault et al. 2007, 156-157; Netanel 2000, 1879-1886; Walker 2003, 24pp). These private encroachments on the users' individual rights and liberties further incite discontent and resistance. It is not surprising that hackers, cyber-punks, outlaws, and code breakers are usually regarded as public heroes and heroines in urban folklore who fight the enclosure of the public domain and the infringement of constitutional rights and liberties of the users. They are rarely stigmatized as villains therein.

## **2. THE TRAGEDY OF THE COMMONS OR THE ANTICOMMONS?**

Besides this common belief, many legal scholars, philosophers, scientists, and social scientists also emphasize that knowledge and information are social and cultural products made, shared, settled, and revised in democratic discourses, open scientific debates, and the pragmatic self-understanding of society. Therefore, the basic notions of mainstream economic paradigm about scarcity, exhaustibility, rivalry, and excludability, which are the distinctive characteristics of tangible goods, can be hardly applicable to the production, use, and distribution of knowledge and information (Kaul et al. 1999, 3-17). In some respects, knowledge and information are not fit into the framework of neoclassical economics. Each individual can maximize the use of knowledge and information goods without exhausting the original resources, passing an excessive cost burden onto others, leaving anybody worse off than before, or excluding anybody from parallel exploitation and enjoyment. The overexploitation of knowledge and information does not bring about economic shortage and social threat; meanwhile, their underexploitation could lead to economic backwardness and social degradation (Vanneste et al. 2004, 13-14). An open-access regime does not have inevitably harmful effect on social welfare, artistic, cultural, and scientific advancements as some law and economics scholars endeavor to argue against the public domain referring to Demsetz's theory on the impact of negative externalities in the development of property right system and Hardin's popular metaphor about the tragedy of the commons (Demsetz 1967, 347-359; Epstein 1989, 1488-1489; Hardin 1968, 1243-1248; Landes and Posner 2003,

471, 487-488). As a consequence of positive externalities and network effects, knowledge and information will never be exhausted under an open-access regime. In lack of rivalry, an open-access regime does not cause congestion or overcrowding in the use of knowledge and information, either. The opposite is the case: hedonistic and flamboyant behaviors in the consumption of knowledge and information goods are quite desirable. Therefore, converting Adam Smith's frequently quoted proposition, every prodigal man appears to be a public benefactor, and every frugal a public enemy in the production, use, and dissemination of knowledge and information goods (Smith 1776, Book II, Ch III.). Under an open-access regime, knowledge and information will be continuously proliferated. Meanwhile, under a proprietary regime, the strict private control of the production, use, and dissemination of knowledge and the flows of information can cause scarcity, underprovision, inefficient resource allocation, endowment effect, holdup problems as well as deadweight social losses and cultural entropy (Heald 2007, 35-41; Gordon 1992, 153-163, 177-180; Netanel 1996, 306-336; Posner 1992, 277-278; Schultz 2002).

According to the mainstream economic paradigm, non-rivalry and non-excludability of knowledge and information goods are especially serious impediments which could frustrate the rights holders to recover production costs and to earn return on investments even if demands are sufficient and society attributes high cultural and economic values to innovative knowledge and novel information goods. For the reason that each additional user can consume knowledge and information goods, whether it is on-line newspaper article, scientific paper, directory, symphony, or software once they have been produced, at zero almost marginal costs, the market itself is not a proper organization to set price above them. Knowledge and information as public, non-rival, and non-exhaustible goods are truly idiosyncratic to the established system of the market economy and the basic tenets of neoclassical economics. Therefore, knowledge and information as proprietary goods entirely rely on the existence of intellectual property laws and the effective legal enforcement of rights holders' proprietary claims. Indeed, the law itself transforms knowledge and information into commodities. By marking out the boundary corners of knowledge and information goods in the elusive fields of culture and staking out the legitimate claims of rights holders in terms of the strength, scope, and duration of protection, governance, excludability, and exclusivity, the law makes knowledge and information scarce, rival, exhaustible, and excludable economic resources in order to recover the production and development costs and to ensure the

economic gains and further commercial opportunities of private beneficiaries. The imposition of legal, judicial, and technological constraints on the production, use, and dissemination of knowledge and information goods serves the aims of the refutation of the basic feature of culture, science, and communication as a collaborative enterprise and the reinforcement of the well-established division between producers and consumers (Barthes 1974, 4-5). If the law provides individuals and business entities with proprietary rights and legal entitlements over the production, use, and dissemination of knowledge and information goods, non-owners' rights and freedoms will be inevitably circumscribed.

The rise of the global communications network as a new public forum for collaborative enterprises, creative endeavors, and information exchange is juxtaposed with the private appropriation of knowledge and information goods from the outset. The enormous success of the global communications network demonstrates that it can very efficiently fulfill the functions of production, use, and dissemination of knowledge and information. Since the global communications network has become a cornucopia of knowledge and information in the last fifteen years, it proves that the digital amplification and global accessibility of the public domain materials do not fade the entrepreneurial spirit of innovation away. The operation of the whole network has been based on end-to-end principle, open standards and protocols from the outset. The exponential increase of cultural and technological innovation renders the well-established economic argument inapplicable, that is to say, exclusive proprietary rights over knowledge and information goods are necessary to create suitable incentives for owners to produce them and efficiently exploit their inherent economic values. Economic and traffic data do not support the fear of underproduction of knowledge and information goods owing to the liberal or relaxed intellectual property regime as the advocates of strict and extended regime complain. And what is more, its smooth and evolving operation is also feasible from the economic point of view. The dynamic development and the economic success of the global communications network confirm that the benefits of rights holders exceed the costs of their investments at comfortable profit margin. However, it still needs to be proven that the expanding proprietization of knowledge and information goods – ranging from gene sequences and mathematical theorems to scientific data collections, software algorithms, cartoon figures and so on – and the complete internalization of the economic benefits of their inventions and uses will enhance social welfare in general; their private appropriation and the creation and enlargement of exclusionary an-

ticommons will further stimulate the amplification of their production, use, and dissemination (Balkin 2004, 26-31; O'Rourke 2000, 1178-79).

### **3. PUBLIC GOODS, PRIVATE GOODS, AND REGULATORY GIVINGS**

Paradoxically, the more our written, visual, and acoustic culture becomes a collaborative venture in the global communications network, the more efforts for withering away the public domain and fencing in knowledge and information goods are made. The attempts of turning knowledge and information into proprietary goods have been revealed in the profound changes of intellectual property regime in the last quarter of the twentieth century. The old intellectual property regime was intended to strike the fair balance between the economic interests of the authors and the benefits of society. The early framers laid down in the British Statute of Anne (1710) and the Constitution of the United States (1788) that the primary aim of the copyright law was „the encouragement of learning” or „to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries”. Especially, the latter document emphasized the primacy of social interests over authors’ economic rights. The Berne and the Paris Copyright Conventions (1910, 1971) and the formerly enacted intellectual property laws had been gradually detached from these original intentions. Although they ceremonially recited the advancement of science, culture, learning, or the importance of public benefits in their preambles, they focused for the most part on the economic interests of rights holders. However, these copyright provisions in regard to the limited strength, scope, and duration of protection, governance, and exclusivity were fairly generous with non-owners and future authors as compared with the current trends of legislation. The fair use doctrine, for instance, served the very purpose of intellectual property laws, namely, the encouragement of public engagement in cultural reproduction, learning, and creative works. In general, the provisions of intellectual property laws still reflected some concern of distributive justice among past, present, and subsequent generations of authors and of society.

Since the mid-1990’s, the consecutive amendments enacted by the World Trade Organization, the World Intellectual Property Organization, and different national legislatures have significantly extended the strength, scope, and duration of protection, governance, excludability and exclusivity and introduced more and more trade-centered and industry-specific – sometimes ephemeral and bizarre – provisions into intellectual property laws, which mandate the use of certain technologies and devices, inhibit, or en-

tirely prohibit others. Today, three basic documents – the WTO Agreement on Trade-Related Intellectual Property Rights (1994), the WIPO Copyright Treaties (1996), and the Digital Millennium Copyright Act of the United States (2000) – establish the legal framework of intellectual property laws for national lawmaking processes worldwide. In the European Union, the the European Copyright Directive on Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society has become the part of the *acquis communautaire* since 2001. By the mid-2006, all member states of the European Union have implemented the Directive into national law. Though, a few of them – like Denmark, Belgium, Portugal, and Hungary – a bit alleviate some controversial provisions on fair use or technological protection measures in national law. In any case, the European Copyright Directive on Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society also follows the current trends of intellectual property rights legislation, to wit, intellectual property is mainly considered as trade-related matter for legislature, jurisdiction, and enforcement and framed this statutory law in terms of economic law (Guibault et al. 2007, 1-16, 169).

The new provisions of these international treaties and laws strive for setting the course of future technological development as well as for determining the human use of knowledge and information goods in the global communications network biased in favor of the commercial interests of the present corporate rights holders. Contrary to the vindication of the early framers for striking a fair balance between the rights of authors and the interests of society, the persistent control of access to knowledge and information goods in the global communications network is the main focus of the prevailing intellectual property laws, today. International bodies and national legislatures are much more concerned with the effects of demand diversion and rent dissipation of corporate rights holders that may result from the global use of the new information and communications technologies and the progressive migration of knowledge and information to free zones of digital environment than the overall social and economic consequences of economic rent-seeking, endowment effect, holdup problems, and deadweight social losses for global welfare.

The recent framers affirm the proprietary claim of rights holders who simply regard the spread of knowledge and the free flow information in the global communications network as knowledge spillovers or negative externalities which impose economic losses on them. They identify the intrinsically cumulative nature of research, innovation, information, and know-

ledge production with the problems of knowledge spillovers or negative externalities which cause imperfect market allocation of resources and send false signals for the investors. If the protection of intellectual property rights is liberal and if the market for knowledge and information goods operates imperfectly, knowledge spillovers generate economic values for third parties the deficient operation of these legal and economic institutions prevents rights holders to capture the full economic benefits of their rights and legal entitlements. In this way, spillovers can be defined as the gap between private and social returns on knowledge, information, and innovations (Frischmann and Lemley 2007, 262). By enacting the new intellectual property regime, the legislators intend to eliminate or at least to narrow this gap. For the legislators, exclusive property right arrangements, effective technological protection measures, and public legal enforcement appear to be appropriate legal institutions and technical means to confer hitherto uncompensated positive externalities on rights holders.

Nevertheless, knowledge, information, and innovations generate quite sizeable knowledge spillovers for third parties which Harold Demsetz and other property right theorists consider as the unrealized assets of rights holders. It follows from this view that the just rewards of rights holders should be very close or probably equal to social values of knowledge and information goods. Many economists estimate that the private rate of return on innovations is not higher than 25%, meanwhile society at large internalizes about half of their total benefits. Moreover, rights holders have to share the economic benefits of the new innovations with competitors who can cheaply introduce their imitations and substitutes into the market without bearing the high costs of research and development. As Kenneth Arrow pointed out, the more important the innovations are, the wider the gap between social and private rates of return becomes (Arrow 1962, 622; Benkler 1999b, 435-440). In this context, the basic questions to be addressed are whether the above-mentioned distribution of private and social returns should be regarded as a suboptimal economic outcome of a liberal intellectual property regime, and whether a strict proprietary regime which enables rights holders to internalize total economic benefits is desirable and feasible from social and economic points of view. The legislature's answer to these questions is affirmative. On the one hand, ownership rights over intangible and tangible goods merits the same level of protection, especially, the right to exclude should be equally applied to intangible and tangible properties in order to prevent the unjust enrichment of non-owners. On the other, as law and economics scholars frequently emphasize, the exclusion of third



parties from capitalizing upon the spillovers of the uses and reuses of knowledge and information goods at behest of rights holders sets the imperfect market allocation of knowledge and information goods right, and generates additional incentives to invest in the production of more creative goods. The notion of additional incentives for developing new ideas, what the framers of the new intellectual property regime and property theorists put forward, does not provide a sound economic argumentation for the introduction of a strict intellectual property regime. A strict intellectual property regime may promote the full economic exploitation of the creative works of the recent rights holders. But if the right holders exercise strict control over accessing to and using knowledge and information goods it undermines the conditions for the creative activity of future creators.

The size of the gap between private and social returns on knowledge and information depends on the distinctive features and importance of knowledge and information goods rather than on the strictness of intellectual property regime and the effective enforcement of proprietary rights. Knowledge spillovers are mostly the results of positive network externalities, creative, improved, recombinative, and innovative uses and reuses of knowledge and information goods. To be sure, these could occasionally impose losses on rights holders, especially, if the new ideas render the old ones obsolete. But the overall outcome of a liberal intellectual property regime is social welfare enhancing. Legislative intervention in the reallocation of the positive externalities of the uses and reuses of knowledge and information goods on behalf of rights holders can not be justified on social welfare consideration.

Social welfare and constitutional considerations – like freedom of speech and distributive justice – necessitate limited proprietary rights and broad fair use rights. However, in the context of mainstream economic paradigm, the fair use provisions of the former intellectual property regime are explained as the unintended outcomes of market failures, namely, the high transaction costs of protection, administration, enforcement, and bargaining over the terms and conditions of use prevent rights holders to internalize the full economic benefits of their rights and legal entitlements. Therefore, legislatures significantly circumscribed the breadth and scope of fair use provisions for sharing, recording, displaying, and storing digital contents in the whole corpus of the prevailing intellectual property laws and grant comprehensive control and authority over all manifestations of possible uses and reuses of knowledge and information goods to private and corporate rights holders (Benkler 1999a, 26-30; Birnhack 2006, 505-517; Bradford 2005, 7-15; Nimmer 2000, 673-674; Nunzinato 2002, 64-77).

The provisions of intellectual property laws in force and the new private ordering schemes throw off the well-established balance between the economic interests of rights holders and the benefits of society. These provisions not only discourage conversations among recent creators but also discount the future benefits of subsequent generations' and push higher costs onto them. As a result of the enlargement of the strength, scope, and duration of proprietary rights over knowledge and information, the recent generation of rights holders leaves on and transmits to the public domain less than that passed on to them. The exclusive and almost persistent ownership rights of the present right holders impose significant limitations on present and future creators who will be impeded to build freely upon their predecessors' and contemporaries' ideas and progresses, and to incorporate some elements into their own works. As a result of abandoning the principle of intergenerational justice among past, present, and subsequent generations of creators, the prevailing intellectual property laws convert their traditional cultural bonds of building upon each other's advancement into licensor-licensee relationship. The innovations and creative expressions of subsequent creators will be stifled if they can not afford to pay for transformative, critical, derivative, improved, parodistic, or recombinative uses of some ideas and information conveyed by pre-existing works (Carroll 2006, 875-878; Nunzinato 2002, 84-85; Oddi 2002, 59-64; Rawls 1971, 288-293). Since transformative, critical, derivative, improved, or parodistic works frequently suppress demands for the original ones, the reallocations of legal entitlements will be presumably obstructed if the economic interests of rights holders and future creators or their other motives are in conflict with each other.

Since the law itself turns knowledge and information goods into commodities, it is difficult to employ precise utility calculus or price mechanism to measure whether the new and extended proprietary rights, their public legal enforcement and private ordering schemes can efficiently optimize their production, use, and dissemination in the global communications network; or to put it in other words, whether these public and private institutional arrangements are the most advantageous to enhancing social welfare of present and subsequent generations. The advocates of the prevailing intellectual property regime usually refer to Demsetz' theory of the origin and efficiency of private property rights which is thought to buttress their strong arguments for the propertization of knowledge and information goods and the redefinition of property rights in digital environment (Bell and Parchomovsky 2005, 548, 560; Epstein 2006, 9-11; Frischmann 2006, 12-14; Levmore 2003, 192-94). Briefly, the argument is as follows: technological

innovations make the bundle of previously determined property rights over knowledge and information goods incomplete because the new information and communications technologies provide new opportunities to create further economic benefits for non-owners without reaping the fair rewards of rights holders' investments. Externality problems and the allocative inefficiency of the market coordination apparently bring about the redefinition of the incomplete bundle of property rights, if the benefits of new property regime outweigh the costs of control, administration, and enforcement. In this view, the increase of the economic values of knowledge and information goods is corollary to the incessant process of privatization, the redefinition of existing property rights, and the private appropriation of their economic values in order to improve the allocative efficiency and smooth operation of the market. They simply leave out of consideration that the bundle of property rights over knowledge and information goods is always and inevitably incomplete because we do not possess perfect knowledge to predict and delineate all of their economic benefits, future uses and reuses in advance. In case of knowledge and information goods, incompleteness should be rather considered as the consequence of dynamic and generative progress in the production, use, and dissemination of knowledge and information than of the imperfectly defined bundle of property rights. Besides its harmful effect, the permanent rearrangement of the bundle of property rights does not offer any constructive market solution to maximize private returns because the restrictive legal control over the dynamic and generative characteristic of knowledge and information production which restrains the possibilities of knowledge spillovers lessens their overall economic values. So, the use of knowledge and information goods always produces economic values for third parties which come from their non-rival and non-excludable features as well as the positive feedback of the growth of knowledge in society. Briefly, the spread of knowledge and the free flow of information in society are not uncompensated takings. Therefore, it is neither efficient nor constitutional if the law forces all recent and future beneficiaries into customer or licensee position in order to avoid externality problems. In spite of the profound differences of ownership between physical and symbolic assets, Demsetz became convinced after a slight hesitation in his influential essay that his land ownership paradigm is applicable to intellectual property rights system, too. He claims without further arguments that there are similar externality problems in the use of land and ideas. If externality problems emerge from the use of knowledge and information goods, the redefinition of property rights is necessary to restore the allocative efficiency of the mar-

ket coordination. So, a well-defined proprietary rights automatically lead to the most efficient use of new ideas if the benefits derivable from these private symbolic assets will be concentrated on their creators (Demsetz 1967, 359). Following the line of Demsetzian analysis, the progressive privatization of knowledge and information goods and the parallel decrease of the public domain can be expected in order to maintain the efficient allocation of the market if the benefits of private rights holders' appropriation outweigh the costs of the control, administration, and enforcement of their legal entitlements.

As this misleading analogy between physical and symbolic assets illustrates, the new intellectual property regime is in lack of solid theoretical foundation. The laws justify the new provisions on the basis of natural rights theory (Lockean labor-desert concept) and of utilitarian theory, respectively. Nevertheless, these two rival philosophical theories have different and sometimes conflicting priorities. Rights-based approach does not allow any concession about the original rights and entitlements of rights holders on behalf of efficiency advantages while utilitarian approach does not rule out the possibility that the effort of welfare maximization may result in the denial of some rights and legal entitlements of rights holders. Giving priority to social benefits over the inherent rights of authors, the first intellectual property laws followed utilitarian approach. The prevailing intellectual property regime habitually claims the priority of the inherent rights and legal entitlements of rights holders over social welfare and leaves little room for other considerations as if it were the most beneficial arrangement for rights holders as well as society at large. In spite of the unique characteristics of the production, use, and dissemination of knowledge and information as they are explained above, the laws take the original rights and legal entitlements over them for granted. Although, the justifications of the inherent rights and initial entitlements over great many public domain materials – for instance, gene sequences, software algorithm, data collections, news, press coverages, plain facts, words and expressions, obvious business methods, concepts, abstract ideas, and color schemes – to exclude others are vigorously disputed from legal, moral, and economic points of view (Levmore 2003, 193-94; Merges 1999, 581-588; Reichman and Uhler 2003, 319-322). On account of the economic benefits of exclusive rights and the absence of the legal protection of public interests, the fraudulent assertions of ownership notices to the public domain materials became widespread practice in the global communications network (Aufderheide and Jaszi 2004, 9-10; Mazonne 2006, 1038-1047).

Whenever legislature assigns new property rights and valuable legal entitlements it also has to mimic the market, because the justification of the current rearrangement of property rights is based not only on natural rights theory but on presumed market failures. Though, knowledge and information goods do not behave like typical market goods in economic transactions. As a consequence of the redefinition of the bundle of intellectual property rights, knowledge and information goods as commodities rather resemble regulatory givings or government subsidies than real market goods: legislature provides exclusive and almost persistent ownership rights for individuals and corporate rights holders over them, sets the extended strength, scope, and duration of their proprietary rights and legal entitlements, and regulates their production, use, and dissemination endorsed with technological measures and detailed statutory provisions (Bell 2003, 229; Dibadj 2003, 1045-50; Liu 2004, 87-166). Instead of price mechanism of competitive market or free bargaining over preferred terms and prices towards the equilibrium position of parties, prices and terms of use of knowledge and information goods are to a large extent determined by the original assignments of property rights and legal entitlements as well as monopoly power of rights holders. The rights holders' monopoly position encourages rent-seeking behavior, creates market externalities, leads to endowment effect – namely, in property rights bargaining the owners value their legal entitlements higher and demand more money to exchange than they would be willing to pay for acquiring them –, and imposes significant social costs on society. The advocates of market solution have to puzzle out the following contradiction: meanwhile a simple market transaction may not efficiently allocate knowledge and information goods without the effective legal enforcement of rights holders' proprietary claims, a strict and comprehensive intellectual property regime does not efficiently fulfill the purpose of maximizing their social values and creates disutilities.

The current changes in intellectual property regime result in losses of non-owners which they are usually averse to bear. Broad and widespread infringement of proprietary rights and legal entitlements is a case in point. From economic point of view, the infringements of owners' rights reduce the social costs of a strict intellectual property regime caused by exclusion, rent-seeking, fragmentation, endowment effect, and deadweight social losses, and to certain extent neutralize some of these detrimental effects on non-owners and society at large. These are almost unavoidable consequences of the current intellectual property regime because the rights holders' monopoly position and the enforcement of their legal claims pre-

vent market mechanism or property rights bargaining to correct the inefficient allocations of property rights in digital environment. So, it is hard to prove that the incessant extension of legal entitlements and monopoly power of rights holders over determining prices and terms of use of knowledge and information goods in economic transaction maximize their social values and enhance social welfare. Contrary to Demsetz' insights into the efficiency of private ownership over the public domain, if the sheer economic benefits derivable from knowledge and information goods are concentrated on rights holders, it results their less efficient uses and diminishes their social values. In case of ideas, a lenient intellectual property regime is likely to produce more utility for all parties and to create more welfare; meanwhile a strict intellectual property regime leaves everyone worse off. Thus, economic theories over private property, efficiency, and incentives seem to offer a less feasible explanation of the motivation of recent trends in intellectual property legislation than public choice theory.

#### **4. PRIVATE ORDERING**

The prevailing intellectual property laws, international treaties and agreements are captured by the vested interest of corporate rights holders in implementing strict and comprehensive proprietary rights over knowledge and information goods (Benkler 1999b, 400-408; Birnhack 2006, 516-517; Braithwaite and Drahos 2002; Elkin-Koren 2005; Frischmann 2006; Sell 2003). Nonetheless, corporate rights holders seldom stay within the bonds of the intellectual property laws and regularly use mass market licenses and standard form contracts in order to contract around the provisions which they assume to be suboptimal for maximizing their own economic benefits. For the reason that most provisions of the prevailing intellectual property laws are default rules, rights holders are free to override them. At the same time, the compulsory and binding provisions of contract arrangements, licenses, and digital rights management about the terms and conditions of use of knowledge and information goods are beyond the scope of the current intellectual property regime. The intellectual property laws do not provide legal protection and legal remedies for non-owners against unfair, non-negotiated, unreasonable, abusive, and forced contract terms which are contrary to the requirement of good faith, or any kind of copyright misuse of rights holders like false claims, intrusive content controls, the extension of monopoly position beyond the scope of the law, the private derogation of the public policy intentions of legislature expressed in the law, the different sorts of „paracopyrights“, and so forth. Therefore, corporate rights holders are able to minimize the possibility of state and judicial interference in the

management of their own proprietary rights and to make more efficient and unilateral allocation decisions on their behalf. In doing so, they usually prohibit otherwise legitimate fair uses of copyrighted materials in contracts. In addition, they supersede the nuanced rules of the current intellectual property laws and further expand their exclusive rights over knowledge and information goods – especially, plain facts, data collections, public domain materials, words and expressions, mathematical formulae, compilations, color schemes, symbols, customer’s personal data, obvious business methods, concepts, and so forth – to which they are initially not entitled by the law (Moffat 2007, 11-20; Radin 2004, 1-15; Lessig 2004). This trend somehow confirms Demsetz’s prediction, namely, as the economic values of knowledge and information goods grow so further attempts on their private appropriation can be anticipated. The redefinition of property rights by the law and private ordering will inevitably occur if the benefits of new and enlarged property rights outweigh the costs of control, administration, and enforcement of legal and contractual obligations of non-owners.

The proliferation of private ordering by means of mass market licenses and standard form contracts brings about the preemption of the provisions of the prevailing intellectual property laws. The European legislators explicitly intended to promote contractual arrangements about the use of copyrighted materials in the Directive on Copyright in the Information Society in the hope of encouraging the rights holders to grant fair, personalized, and competitive contract terms to their contracting parties (Guibault et al. 2007, 136-138, 153). The prevalence of private contractual arrangements in the global communications network would be welcome if it were relied upon the voluntary, rational, deliberate, and informed consent of parties. As it is frequently emphasized, fair contract provides the most efficient welfare-enhancing institution for coordinating the transfer and exchange of property rights and legal entitlements among the members of society. Alas, the great majority of contracts completed in the online world does not depend upon *aggregatio mentium* or *consensus ad idem*, namely, the meeting of the minds of the parties. Terms and conditions of use of or access to knowledge and information goods, which were negotiated, drafted, and agreed upon mutual consent of parties, can be barely found in contractual arrangements. Standard form contracts, mass market license terms and conditions are deliberately drafted on a take-it or leave-it basis. The main purpose of private ordering is to eliminate or impede the choice of non-owners in the global communications network.

Though, this general business practice is not devoid of paradox: private ordering regime offers an appealing perspective to wither away fair uses and the public domain in order to maximize the economic benefits of corporate rights holders as well as to preempt the biased and restrictive provisions of the recent intellectual property laws by means of providing free – or at least less constrained – access to knowledge and information goods. Private ordering gives corporate rights holders further opportunities to create their own private legislation and to impose less favorable or even unfair and unreasonable terms and conditions on their non-drafting parties. At the same time, it could also fulfill the principle of distributive justice and equity among present and subsequent generations of creators and users as it is the case of many innovative initiatives like Free Software Foundation and other projects of open source movement, Creative Commons, Open-CourseWare, iCommons, Science Commons, Patent Commons, Magnatune, and so forth. These ventures represent alternative business models for the creation and distribution of knowledge and information goods, although none of them contests the very foundation of the proprietary claims of private rights holders over them, namely, all chunks and quanta of knowledge and information which may have actual or potential economic significance can be lawfully appropriated and privatized. Nevertheless, they accommodate to the current trends of propertization of knowledge and information with some altruism.

Whether private ordering regime serves the private interests of corporate rights holders or the public benefits solely depends on the benevolence of rights holders. Their feeble inclination towards fair share principle is manifested in the fact that the great majority of rights holders prefers to enlarge their proprietary rights over the public domain materials and to create their own rights against the world rather than to offer fair and reasonable terms and conditions of the use of what they are entitled to own in order to „promote the progress of sciences and useful arts“. In effect, private ordering could facilitate the spread of knowledge and the free flow of information, but typically takes the form of private legislation, which narrows the possibilities of non-contracting parties, as well. In this way, the matter of ownership becomes the key issue for virtually all kind of computer-mediated interactions to which exclusive rights are attached by the law or private legislation in the digital world. Therefore, private ordering could at most be a compassionate endeavor for protecting and enlarging the public domain but far from an effective panacea against the harmful economic, social, and



cultural consequences of the prevailing intellectual property laws and private legislation.

Regarding the production, use, and dissemination of knowledge and information as essentially collaborative enterprise, it is quite reserved proposal to appeal to rights holders for a gesture of goodwill, virtue, and decency without scrutinizing the legitimacy, social fairness, and economic efficiency of the current intellectual property regime over knowledge and information goods as defined by the law. Well-defined and exclusive property rights are indispensable for promoting the allocative efficiency of the market in the world where economic resources are scarce, exhaustible, rival, and excludable. Though, the deference to this well-established paradigm about the primacy of private goods over public goods is neither self-evident nor particularly productive in case of knowledge and information to which these economic phenomena can be hardly applied.

## REFERENCES

- [1] Arrow, Kenneth J. 1962. „Economic welfare and the allocation of resources for invention,” In. *The Rate and Direction of Inventive Activity: Economic and Social Factors*. Princeton, NJ: Princeton University Press, National Bureau Economic Research, 609-626.
- [2] Aufderheide, Patricia and Peter Jaszi, 2004. *Untold Stories: Creative Consequences of the Rights Clearance Culture for Documentary Filmmakers*. Washington DC, American University.
- [3] Balkin, Jack M. 2004. „Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society,” *New York University Law Review*, 79, Vol. 1. 1-55.
- [4] Barthes, Roland 1974. *S/Z*. New York, Hill and Wang.
- [5] Bell, Abraham and Gideon Parchomovsky 2005. „A Theory of Property,” *Cornell Law Review*, Vol. 90. Nr. 3. 531-615.
- [6] Bell, Tom W. 2003. „Author’s Welfare: Copyright as a Statutory Mechanism for Redistributing Rights,” *Brooklyn Law Review*, Vol. 69. 229-272.
- [7] Benkler, Yochai 1999a. *Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information*. New York University School of Law, Public Law and Legal Theory Working Paper Series, WP 10.
- [8] Benkler, Yochai 1999b. „Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain,” *New York University Law Review*, Vol. 74. 354-446.
- [9] Benkler, Yochai 2006. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven and London, Yale University Press.
- [10] Birnhack, Michael D. 2006. „Global Copyright, Local Speech,” *Cardozo Arts & Entertainment*, Vol. 24. 491-547.
- [11] Boyle, James 2000. „The First Amendment and Cyberspace: The Clinton Years,” *Law & Contemporary Problems*, 63 Winter/Spring, 337-351.
- [12] Bradford, Laura R. 2005. *Parody and Perception: Using Cognitive Research to Expand Fair Use in Copyright*. New York University, Law and Economics Research Paper Series, Working Paper No. 05-09
- [13] Braithwaite, John and Peter Drahos 2002. *Information Feudalism: Who Owns the Knowledge Economy?* London, Earthscan.
- [14] Carroll, Michael W. 2006. „One For All: The Problem of Uniformity Cost in Intellectual Property Law,” *American University Law Review*, Vol. 55. 845-900.
- [15] Demsetz, Harold 1967. „Towards a Theory of Property Rights,” *The American Economic Review*, Vol. 57, 2, May, 347-359.
- [16] Dibadj, Reza 2003. „Regulatory Givings and the Anticommons,” *Ohio State Law Journal*, Vol. 64, No 4, 1041-1124.
- [17] Elkin-Koren, Niva 2005. „What Contracts Cannot Do: The Limits of Private Ordering in Facilitating a Creative Commons,” *Fordham Law Review*, Vol. 74. No. 2. 375-422.
- [18] Epstein, Richard 1989. „Justice across the Generations,” *Texas Law Review*, 67, 1465-1483.

- [19] Epstein, Richard 2006. *The Structural Unity of Real and Intellectual Property. Progress on Point: Periodic Commentaries on the Policy Debate*, Release 13.
- [20] Frischmann, Brett M. 2006. „Evaluating the Demsetzian Trend in Copyright Law,” *American Law & Economics Association Annual Meetings*, Paper, 17, 1-31.
- [21] Frischmann, Brett M. and Mark A. Lemley 2007. „Spillovers,” *Columbia Law Review*, Vol. 107. 257-302.
- [22] Gordon, Wendy J. 1992. „On Owning Information: Intellectual Property and the Restitutionary Impulse,” *Virginia Law Review*, 78, 149-281.
- [23] Guibault, Lucie M.C.R. et. al. 2007. *Study on the Implementation and Effect in Member States’ Laws Of Directive 2001/29/EC*. Amsterdam, Institute for Information Law,
- [24] University of Amsterdam.
- [25] Hardin, Garrett (1968) „The Tragedy of the Commons,” *Science*, Vol. 162. 13 December. 1243-1248.
- [26] Heald, Paul J. 2007. *Property Rights and the Efficient Exploitation of Copyrighted Works: An Empirical Analysis of Public Domain and Copyrighted Fiction Best Sellers*. University of Georgia, School of Law Research Paper Series, No. 07-003.
- [27] Kaul, Inge, Isabelle Grunberg and Marc A. Stern 1999. „Defining Global Public Goods,” In. Kaul, Inge, Isabelle Grunberg, and Marc A. Stern, (eds.) *Global Public Goods: International Cooperation in the 21st Century*, Oxford University Press Oxford, 3-17.
- [28] Landes, William M. and Richards A. Posner 2003. „Indefinitely Renewable Copyright,” *University of Chicago Law Review*, 70, 471-488.
- [29] Lessig, Lawrence 2004. *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York, The Penguin Press.
- [30] Levmore, Saul 2003. „Property’s Uneasy Path and Expanding Future,” *University of Chicago Law Review*, Vol. 70. Winter, 81-195.
- [31] Liu, Joseph P. 2004. „Regulatory Copyright,” *North Carolina Law Review*, Vol. 83, No. 1. 87-166.
- [32] Mazzone, Jason 2006. „Copyfraud,” *New York University Law Review*, Vol. 81. 1026-1100.
- [33] Merges, Robert P. 1999. „As Many As Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform,” *Berkeley Technology Law Journal*, Vol 14. 577-615.
- [34] Moffat, Viva R. 2007. *Rethinking Contractual Restrictions on Fair Use: Preemption and the Structure of Copyright Policymaking*. University of Denver Sturm College of Law, Legal Research Paper Series, Working Paper No. 07-21
- [35] Netanel, Neil Weinstock 1996. „Copyright and a Democratic Civil Society,” *The Yale Law Journal*, 106, 283-387.
- [36] Netanel, Neil Weinstock 2000. „Market Hierarchy and Copyright in Our System of Free Expression,” *Vanderbilt Law Review*, 53, Nov. 1879-1932.
- [37] Nimmer, David 2003. „‘Fairest of them All’ and Other Fairy Tales of Fair Use,” *Law & Contemporary Problems*, 63 Winter/Spring, 263-287.
- [38] Nunziato, Dawn C. 2002. „Intergenerational Justice Between Authors in the Digital Age,” *Journal of Intellectual Property Law*, Vol. 9, No. 2. 219-290.
- [39] O’Rourke, Maureen A. 2000. „Toward a Doctrine of Fair Use in Patent Law,” *Columbia Law Review*, Vol. 100, No. 5. 1177-1250.

- [40] Oddi, A. Samuel (2002) „The Tragicomedy of the Public Domain in Intellectual Property Law,” *Hastings Communications and Entertainment Law Journal*, Fall, 1-64.
- [41] Posner, Richard A. 1992. *Economic Analysis of Law*, Boston-Toronto-London, Little, Brown, and Company.
- [42] Radin, Margaret Jane (2004) „Regime Change in Intellectual Property: Superseding the Law of the State with the ‘Law’ of the Firm,” *University of Ottawa Law and Technology Journal*, Vol. 1, Issue 1-2. 173-188.
- [43] Rawls, John (1971) *A Theory of Justice*. Harvard University Press, Cambridge.
- [44] Reichman, J. H. and Paul F. Uhler (2003) „A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment,” *Law and Contemporary Problems*, Vol. 66. 315-462.
- [45] Samuelson, Paul A. 1954. „The Pure Theory of Public Expenditure,” *Review of Economics and Statics*, 36. Nov. 387-389.
- [46] Schultz, Jason (2002) The Myth of the 1976 Copyright “Chaos” Theory, <http://www.lessig.org/blog/archives/jasonfinal.pdf> last visited on 16 May 2007
- [47] Sell, Susan (2003) *Private Power, Public Law: The Globalization of Intellectual Property Rights*, Cambridge, Cambridge University Press.
- [48] Stiglitz, Joseph E. (1999) „Knowledge as a Global Public Good,” In. Kaul, Inge, Isabelle Grunberg, and Marc A. Stern, (eds.) *Global Public Goods: International Cooperation in the 21st Century*, Oxford University Press Oxford, 308-325.
- [49] Vanneste, S., A. Van Hiel, F. Parisi, and B. Depoorter 2004. *From ‘tragedy’ to ‘disaster’: Welfare effects of commons and anticommons*. George Mason University, School of Law Law and Economics Working Paper Series, 04-23
- [50] Walker, John 2003. „The Digital Imprimatur: How Big Brother and Big Media Can Put the Internet Genie Back in the Bottle,” *Knowledge, Technology, & Policy*, Vol. 16, No. 3, 24-77.