

4 Re-shaping creativity: Proposals for classification of works and flexible opt-in mechanisms

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4.1 Abstract

An unprecedented number of works circulate on the Internet. Users not only share this “artistic and scientific pandemonium” but also play a key-role in present-day participatory procedures of culture production. Some authors call it “bastard” culture, while others speak of an “amateur” culture capable of wakening users from their sleep of ages. User-generated content has become the driving force of the internet informational revolution, which brings back to the discussion table some good-old-fashioned academic opinions related to non-economic incentives for creation and a “direct and immediate causal link” between the unimpeded use of works and the promotion of arts and science. Given that competent cultural bodies aim at promoting education, the former could look out of the window and undertake initiatives so as to innovatively classify works and activate flexible mechanisms, so that users would be enabled to take maximum advantage of present-day possibilities of accessing culture and science. This would allow people to experiment on previous artistic and scientific knowledge and would, thus, guarantee the prerequisite for the rise of new intellectual movements. Each user might, then, have the capacity to submit her unique proposals and ideas, not only to support informational revolution but, to declare informational democratization as well.

4.2 Introduction

An ever-increasing number of young artists “upload” astonishing works, which users share without any costs¹. More and more scientists publish their articles free of charge in several digital academic repositories². Countless platforms encourage this “artistic and scientific pandemonium”, while users play a key-role in the participatory³ process of cultural production⁴. Some scholars speak of a new “bastard”⁵ culture, where multiple participants and practices blend together. Others welcome new genres of works that users create (“amateur culture”)⁶ as the (latter’s) first breath after their deep “consumerist coma”⁷ and argue that user-generated content has become the driving force of the internet informational revolution⁸.

¹ Sharing is a fundamental activity among digital natives. Winston Jin Song Teo & Chei Sian Lee, *Sharing Brings Happiness? Effects of Sharing in Social Media Among Adult Users*, in A. Morishima et al. (eds), *Digital Libraries: Knowledge, Information, and Data in an Open Access Society*, 18th International Conference on Asia-Pacific Digital Libraries, ICADL 2016, Springer, pp. 351-365.

² See e.g. <http://www.oapen.org/home>.

³ The term “participatory culture” was introduced by Henry Jenkins (Henry Jenkins, “Textual Poachers. Television fans and participatory culture”, London, New York, 1991).

⁴ See e.g. <http://blog.europeana.eu/2017/10/playing-with-colours-make-your-first-gif-it-up-entry/>.

⁵ Mirko Tobias Schäfer, *Bastard Culture! How user participation transforms cultural production*, 2011, Amsterdam University Press, pp. 1-256, at p. 11.

⁶ Lawrence Lessig, *Code, Version 2.0*, 2006, Basic Books (New York), pp. 192-196.

⁷ J.D. Lasica, *Darknet: Hollywood’s War Against the Digital Generation*, 2005, Wiley & Sons, pp. 1-320, at p. 78

⁸ Giancarlo Frosio, *Communia and the European Public Domain Project: A Politics of the Public Domain*, in Melanie Dulong de Rosnay & Juan Carlos De Martin (eds), *The Digital Public Domain: Foundations for an Open Culture*, Open Book Publishers, 2012, p. 31.

How does the law treat such pandemonium? Under the European Intellectual Property (IP) regime, almost everything appears to be protected. Software, computer programs, pharmaceutical products⁹, plant varieties¹⁰ or even “animals”¹¹ are capable of being the subject-matter of IP rights. One could argue that only a human falls outside this protection zone, albeit, only with regard to her “physical substance and natural status”, given that items of our “digital personality”¹² could perhaps be considered as parts of a database protected by a sui generis IP right¹³.

Given the contradictions between current norms and laws, this article investigates several factors which encourage creativity and explores the various incentives of creators. Moreover, it argues that each work’s purpose and nature are different and, thus, law should not treat all products of human mind in the same way. Furthermore, it suggests that temporary rights of authors over their intangible works should not be treated as rights to physical property. Finally, given the uniqueness and dissimilar economic function of each kind of works, it examines whether flexible solutions could be implemented, so as to achieve the right balance between conflicting interests.

4.3 Debating on creativity and incentives (and experimenting on databases)

Birds did sing before the “invention” of Intellectual Property rights. Indeed, creativity is a phenomenon much broader than that of commercial transactions. Given that it appeared earlier than commerce¹⁴, its study demands the understanding both of the creative procedure

⁹ See ECLI:EU:C:2013:520, Judgment of the Court of Justice (Grand Chamber), 18 July 2013, (Common commercial policy | Article 207 TFEU | Commercial aspects of intellectual property | Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) | Article 27 | Patentable subject-matter | Article 70 | Protection of existing subject-matter), in Case C-414/11, Daiichi Sankyo Co. Ltd and Sanofi-Aventis Deutschland GmbH v DEMO Anonimos Viomikhaniki kai Emporiki Etairia Farmakon, (“[...] the Court (Grand Chamber) hereby rules: [...] 2. Article 27 of the Agreement on Trade-Related Aspects of Intellectual Property Rights must be interpreted as meaning that the invention of a pharmaceutical product such as the active chemical compound of a medicinal product is, in the absence of a derogation in accordance with Article 27(2) or (3), capable of being the subject-matter of a patent, under the conditions set out in Article 27(1) [...]”
<http://curia.europa.eu/juris/document/document.jsf?text=&docid=139744&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=79630>.

¹⁰ See Council Regulation (EC) No 2100/94 of 27 July 1994 on Community plant variety rights.

¹¹ See Kevles Daniel, A history of patenting life in the US with comparative attention to Europe and Canada, European Group on Ethics in Science and new technologies in the European Commission, 2002. Available at <https://scholarworks.iupui.edu/bitstream/handle/1805/757/Patenting%20Life%20-%20Comparative%20Study%20US%2c%20CN%2c%20EU%202002.pdf?sequence=1&isAllowed=y>. See also: European Patent Office, Press Release 3/92, European Patent for Harvard’s Transgenic Mouse.

¹² A “digital personality” refers to an online personal electronic identity. It describes one’s self as others see her, when they find personal digital information left behind. See Adam Blackie, *Your Digital Personality*, 2011, LuLu.com, p. 3.

¹³ See the Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases. Sui generis rights over contents of databases, such as data and facts that are in the public domain, are an old but still interesting subject of legal discussion. See Maria Bottis, *The Law of Information*, 2004, Nomiki Bibliothiki, p. 69 (In Greek); James Boyle, Foreword: The Opposite of Property?, 66 *Law and Contemporary Problems*, pp. 1-32 (Winter 2003), p. 25; Giancarlo Frosio, *Communia and the European Public Domain Project*, id, p. 25; Mark Davison, *Database Protection: The Commodification of Information*, in L. Guibault and P.B. Hugenholtz (eds), *The Future of the Public Domain, Identifying the Commons in Information Law*, 2006 Kluwer Law International, pp. 167–189.

¹⁴ See Julie E. Cohen, *Copyright, Commodification, and Culture: Locating the Public Domain*, in L. Guibault and P.B. Hugenholtz (eds), *The Future of the Public Domain*, id, p. 137.

and the development of an artistic and scientific culture¹⁵. The latter, as some commentators put it, is different from several “economic models’ culture”¹⁶ and is, thus, treated as a network of sources and activities, where multiple persons participate¹⁷.

Magnificent works have been created due to an opportunity of unimpeded use of and experimentation on previous works¹⁸. For instance, in the field of arts, great musical movements, such as Jazz, Blues or Folk, were born thanks to the opportunity for authors to freely use previous works¹⁹. Moreover, free use of works constituted the foundation for audiovisual arts²⁰. Such practices of “borrowing without license” were treated as a “cultural dialogue”, rather than having been condemned as “illegal deeds”²¹. Examples of creating important works due to free-use and without-license-experiments are numerous²² and, as such, one could mention present-day works (e.g. movie “Kill Bill”²³) or older ones (e.g. William Shakespeare’s²⁴).

Setting aside the fields of arts, unimpeded access to existing works and their use without license used to be and are still fundamental for the progress of science²⁵. This is something that many scientists have claimed. Namely, in 1675 Isaac Newton famously wrote to Robert Hooke “if I have seen further [than others] it is by standing upon the shoulders of giants”²⁶. Furthermore, an open access environment with regard to academic works is strongly supported by old²⁷ and present-day authors. More precisely, some demand “open access to knowledge”, where “knowledge” stands for any document, data, image, multimedia et cetera, and “open” means this kind of access that allows anyone to freely (re)use and (re)distribute

¹⁵ See Pamela Samuelson, Mapping the Digital Public Domain: Threats and Opportunities, 66 Law & Contemp. Probs (Winter/Spring 2003), pp. 170-171.

¹⁶ See E. A. Salitskaya, The Development of the Institution of Copyright in European Countries, Herald of the Russian Academy of Sciences, Pleiades Publishing, Ltd., 2015; Julian Rodriguez Pardo, Copyright and Multimedia, 2003, Kluwer Law International.

¹⁷ See Julie E. Cohen, Copyright, Commodification, and Culture, id, pp. 137-138, 141.

¹⁸ As some scholars argue, unimpeded use and circulation of information is an important input to culture, science and democratic discourse. Thus, intellectual property should serve information rather than be its master. Pamela Samuelson, Mapping the Digital Public Domain, id.

¹⁹ Keith Aoki, James Boyle, Jennifer Jenkins, Tales from the public domain, Theft! A history of music, 2017; Bound by Law, 2006, Duke Centre for the Study of The Public Domain.

²⁰ O.B. Arewa, From J.C. Bach to Hip Hop: Musical Borrowing, Copyright and Cultural Context, 84 N.C.L. Rev. 547-645, J.P. Burkholder, A. Giger & D.C. Birchler, eds, Musical Borrowing: An Annotated Bibliography, Negativland, Two Relations to a Cultural Public Domain, 66 L. & Contemp. Probs. 239-262 (2003).

²¹ C.J. Homburg, The Copy Turns Original, Amsterdam, Benjamins, 1996.

²² James Boyle Foreword: The Opposite of Property?, id, p. 17.

²³ Kill Bill DVD (Volume 1) contains a short documentary, where Quentin Tarantino discusses to what extent his movie was influenced by many previous works (such as Japanese anime and spaghetti westerns).

²⁴ Shakespeare “borrowed” multiple preexisting works. See Julie E. Cohen, Copyright, Commodification, and Culture, id, pp. 144, 145.

²⁵ See Lawrence Lessig, Copyright And Science: A plea for skeptics, Tokyo University, October 5, 2009, where Lessig argues that copyright for scientific works makes no sense and that distribution model for such works must be based on sharing. Lessig finds it unthinkable that any protection model applied to commercialized goods should apply to science.

²⁶ The Columbia World of Quotations No. 41418 (1996) – Quoting Isaac Newton’s Feb. 5, 1675 Letter to Robert Hooke. See also Graeme B. Dinwoodie, Rochelle Cooper Dreyfuss, Patenting Science: Protecting the Domain of Accessible Knowledge, in L. Guibault and P.B. Hugenholtz (eds), The Future of the Public Domain, id, p. 195.

²⁷ See for instance R.K. Merton, The Normative Structure of Science, in The Sociology of Science, Theoretical and Empirical Investigations, Chicago, University of Chicago Press, 1973, pp. 267, 273.

works²⁸. Some academics argue that copyright for academic works is unreasonable, given that scientists aim at reputation rather than royalties and, thus, money²⁹.

Given the above opinions, one could argue that unimpeded use of works promotes creativity and, thus, arts and science. However, Intellectual Property theories generally recognize that works shall be protected so as to offer authors financial incentives to create. This is absolutely reasonable, given that no one could ask, for instance, a songwriter to publish her song free of charge. These generally accepted theories are strongly supported by private enterprises, which tend to put pressure on the legislator to secure their economic interests³⁰. The firms claim that it is rigorous protection of works that offers the financial incentives to creators to produce more works of better quality.

Nevertheless, some academics argue that private enterprises hold such opinions in order to promote their own economic interests rather than the authors'. Furthermore, commentators note that creators' incentives have always been intrinsic. As some scholars put it, it is the very knowledge and communication between scientists or artists that motivates them to produce their works³¹. Besides, as humans, all authors have the need to create³². Moreover, some believe that the unique incentive is "love" for science³³ or art³⁴, while others claim that people create because they are inspired or because they have an idea or a concern³⁵ and not for

²⁸ Rufus Pollock & Jo Walsh, Open Knowledge Foundation Open Knowledge: Promises and Challenges, in Melanie Dulong de Rosnay and Juan Carlos De Martin (eds), *The Digital Public Domain*, id, p. 125.

²⁹ Marc Scheufen, Copyright Versus Open Access, *On the organization and International Political Economy of Access to Scientific Knowledge*, Springer International Publishing Switzerland, 2015, pp. 47-51

³⁰ Many scholars comment that private enterprises play a leading role during the law-making process. For instance, several academics argue that Disney put pressure on Congress to pass the Sonny Bono Copyright Term Extension Act. See Marc Scheufen, Copyright Versus Open Access, id, p. 20, Leveque F. & Meniere Y., *The economics of patents and copyright*, 2004, p. 68, Corigan R. & Rogers M., *The economics of copyright*, World Economics, 2005, p. 164. Moreover, the Act mentioned above was renamed by academics "Mickey Mouse Copyright Extension Act". See Richard Stallman, *Free software Free society, Selected Essays of Richard M. Stallman*, (ed. Joshua Gay), Free Software Foundation Inc., 2002, p. 141. In other cases, some mention that law was treated as a kind of contract between firms and note that industries were literally asked to draft the rules by which "they would live", James Boyle, *The Public Domain, Enclosing the Commons of the Mind*, 2008, Yale University Press, p. 56. See also Jessica Litman, *Digital Copyright* (Amherst: Prometheus, 2001), pp. 22-69, Neil W. Netanel, "Why Has Copyright Expanded? Analysis and Critique", in *New Directions in Copyright Law*, vol. 6, ed. by Fiona Macmillan (Cheltenham: Edward Elgar, 2008), pp. 3-34.

³¹ D. J. Finch, Accessibility, sustainability, excellence: how to expand access to research publications, *Report of the Working Group on Expanding Access to Published Research Findings*, 2012, p. 14

³² Yochai Benkler, *From Anarchist Software to P2P Culture - Conference on the Public Domain*, 2001, Duke University School of Law.

³³ With regard to software production, scholars note that the main incentive is programmers' need and wish to produce rather than financial benefits derived from exploitation. See E. Moglen, *Anarchist Triumphant: Free Software and the Death of Copyright*, in Elkin Koren & N. Weinstock Netanel (eds), *The Commodification of Information*, The Hague, Kluwer Law International 2002, pp. 107-131. See also Maurice Schellekens, *Free and Open Source Software: An Answer to Commodification?*, in L. Guibault and P.B. Hugenholtz (eds), *The Future of the Public Domain*, id, p. 309.

³⁴ James Boyle Foreword: *The Opposite of Property?*, id, p. 17.

³⁵ For instance see Julie E. Cohen, *Creativity and Culture in Copyright Theory*, 40 U.C. Davis L. Rev., p. 1151 (2007); Jeanne C. Fromer, *A Psychology of Intellectual Property*, 104 Nw. U. L. Rev., p. 1441, pp. 1443-44 (2010); Eric E. Johnson, *Intellectual Property and the Incentive Fallacy*, 39 Fla. St. U. L. Rev. p. 623, p. 627 (2012); Gregory N. Mandel, *Left-Brain Versus Right-Brain: Competing Conceptions of Creativity in Intellectual Property Law*, 44 U.C. Davis L. Rev., p. 283, pp. 285-286 (2010); Jessica Sibley, *Harvesting Intellectual Property: Inspired Beginnings and "Work-Makes-Work": Two Stages in the Creative Process of Artists and Innovators*, 86 Notre Dame L. Rev., p. 2091 (2011); Diane Leenheer Zimmerman, *Copyright as Incentives: Did We Just Imagine That?*, 12 Theoretical Inquiries in Law (12.1), 2011, p. 29.

money³⁶. As some observe, works created “under (firms’) orders” are “less original” or -to some- not creative at all³⁷. Thus, in this context, it is companies³⁸ rather than authors the ones interested in financial benefits derived from the exploitation of works³⁹.

All the opinions mentioned above are just trying to (theoretically) approach artists’ and scientists’ “mental world”. One must accept that creation is indeed a personal matter and, hence, each author creates her works for different reasons and due to her own motives. Thus, incentives may be either intrinsic or financial.

So how could one conclude whether it is rigorous protection of works or their unimpeded use that encourages creativity and promotes arts and science? An experiment could be a scientific way to examine this. In two different countries, two dissimilar systems could be applied; one of strict protection of works and another of no protection. After many years, one could study the results and examine in which country more works of better quality would have been produced.

However, this experiment has already been conducted. Under Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, European unoriginal databases were protected. On the other hand, the US legislator did not grant such *sui generis* rights, while the Supreme Court was clear; unoriginal collections of facts shall not be protected⁴⁰.

Studying the results of the US-EU “experiment”, we see that the European databases’ production increased for a short (one-year) period, after which it returned to its previous level. On the other hand, the American databases’ production showed a steady increasing trend⁴¹.

Furthermore, the European overprotection led to production of “bad-quality” databases, such as assortment of advertisement or collections of hyper-links to parenting resources. Thus, some authors questioned whether these collections were the ones, the stronger protection of which the European legislator had wished to encourage⁴².

Moreover, the introduction of *sui generis* rights brought new management and transaction costs, given that database owners and users had to incorporate these new rights into their agreements⁴³. Such costs were absent in the US.

Sui generis rights led to commercialization of information and severely damaged the public domain⁴⁴.

To sum up, European *sui generis* protection did not increase database production, led to protection of unworthy collections, introduced new costs and commercialized parts of the public domain⁴⁵.

³⁶ Mihaly Csikszentmihalyi, *Creativity, Flow and the Psychology of Discovery and Invention*, New York, Harper Collins, 1996. See also Jessica Silbey, *The Eureka Myth: Creators, Innovators, and Everyday Intellectual Property*. Lessig distinguishes between “professionals” and “creators”, where the former create works for economic purposes, while the latter are motivated by love for their works. See Lawrence Lessig, *Copyright And Science: A plea for skeptics*, id.

³⁷ Teresa M. Amabile, *Creativity in Context*, Boulder, Westview Press, 1996.

³⁸ Richard Stallman, *Free Software Free Society*, id, p. 87.

³⁹ See Michael W. Carroll, *Whose Music Is It Anyway? How We Came to View Musical Expression as a Form of Property*, *University of Cincinnati Law Review*, Vol. 72, 2004, pp. 1405-1496.

⁴⁰ *Feist v. Rural Telephone Service*, 499 U.S. 340 (1991).

⁴¹ James Boyle & Jennifer Jenkins, *Intellectual Property: Law & The Information Society*, Cases and Materials, 3rd Edition, 2016, pp. 316-319. See also S. Maurer, *Across Two Worlds: Database Protection in the US and Europe*, *Industry Canada’s Conference on Intellectual Property and Innovation in the Knowledge-Based Economy*, Ottawa, 23-24 May 2001; M. Davison, *The Legal Protection of Databases*, Cambridge University Press, 2003, pp. 259-263.

⁴² James Boyle & Jennifer Jenkins, *Intellectual Property*, id, p. 319.

⁴³ Mark Davison, *Database Protection*, id, p. 179.

⁴⁴ Mark Davison, *Database Protection*, *ibid*.

⁴⁵ As some authors have aptly put it, for the first time in intellectual property history rights were established on ideas and facts, such as our names or our streets’ names. See Maria Bottis, *The Law of Information*, id, 2004, p. 69 (in Greek).

Setting aside experiments and regardless of opinions on creativity and incentives, it is worth examining several protection rules and scenarios, so as to highlight the need for classification of works.

4.4 What if each work was treated as such?

Under the European copyright regime, all products of human mind are treated in the same way⁴⁶. But is there anything really in common between a recipe, an academic essay and a song?

A recipe aims at creating a decent meal. Is it reasonable to forbid modification or use of such work (without the chef's license) for "author's" life plus a 70-year period after chef's death? Perhaps people should have the right to modify a simple recipe. The exchange of recipes is an old practice, which has been and is still encouraged in families or students in general. This free-use concept could "apply" to works that aim at just inspiring people to only create something decent. This category could include encyclopedias or even software⁴⁷. In fact, free software could be used in schools and universities, as it would enable students to create new software by "experimenting" on such works and by proposing their innovative ideas in a fast-moving world⁴⁸. Norms on the distribution of free software would very likely enable students to adopt some very important ideas, such as that of sharing of scientific thoughts for the benefit of technological development.

An academic essay, on the other hand, is something different. It aims at expressing ideas, opinions or knowledge. The modification of this work might distort author's thoughts and beliefs. Thus, works of this kind could be freely used, either verbatim or in a wording that would truly express author's opinions. An obligation to quote the initial author could be included, given that this is the practice that today's (and old) academics follow when publishing their essays, in which they mention and credit the author to whom their references are related.

Finally, a song's purpose is to entertain people or -sometimes- to provide an opportunity to think in depth. It has an aesthetic value and, hence, could be sorted into a group, to which a painting or a novel could be added. These works are truly sensitive as that they illustrate author's personality and constitute her expression. In this case, works could be further sorted into sub-groups and, hence, be protected with regard to their "commercial life". For instance, books, which readers usually are interested to buy for short periods of time that -to some- do not exceed five years following publication⁴⁹, could be protected for such limited times⁵⁰.

⁴⁶ See article 2(1) of Berne Convention for the Protection of Literary and Artistic Works ("[...] The expression "literary and artistic works" shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramaticomusical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science [...]").

⁴⁷ Stallman argues that users of free software shall be free to execute the program for any purpose, study its modus operandi and adapt it to their needs, redistribute copies of such software in order to "help their neighbor", improve the program, and distribute new improved software for the benefit of users' community. Richard Stallman, Free Software Free Society, id, pp. 43, 165.

⁴⁸ As some authors put it, teaching non-free and proprietary software equals to teaching dependence and addiction, Richard Stallman, For a free digital society, University of Bern, 2016.

⁴⁹ As some commentators argue, commercial life of certain books or songs or movies does not exceed a one-year-period. Lawrence Lessig, Free Culture, How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity, The Penguin Press, 2004, p. 225.

⁵⁰ Other authors allege that in case of books a ten-year-period protection could be granted (starting from publication). Not because commercial life is that long, but due to "safety reasons". Richard Stallman, Free Software Free Society, id, p. 87.

Thereafter, each sub-group's commercial life could be measured and an author's right could be granted, so that the creator would be enabled to protect her work for truly limited times. The kinds of works are countless. However, they could be classified on the basis of their nature and purpose⁵¹ to guarantee a specific protection for limited times⁵² that would not exceed a "some-years-period". After the expiry of that period, any work, whatever its purpose would be, shall enter the public domain and enable people to freely use it⁵³ and, hence, promote arts and science.

4.5 What if Intellectual Property was not treated as (physical) property?

In many cases, term "theft" is used to express copyright infringement. However, temporary rights of authors to protect their intangible works are not the same as unlimited individual rights (in rem) that deal with property⁵⁴. Such equal treatment of different rights is misleading, given that the economic function (and nature) of goods is totally different. Moreover, it is dangerous, as the equal treatment may lead decision-makers to wrong decisions.

Rules that govern property are based on a physical reality, in which a landlord, for instance, must be protected against potential deprivation by the state, or possible infringement by individuals. Namely, the very tangible form and "physical substance/status" of property, which is subject to the rules of nature, constitutes the object of protection. The risk that has to be avoided relates to potential damages to the object (e.g. breaking down a wall) or (to) possible deprivation, such as violation of possessory rights or forced expropriation in favor of the state. Furthermore, if one person owns a tangible good, e.g. a pencil, she will be the one and only person able to use it. All others will be excluded from using or "consuming" this pencil. Besides, production and reproduction of tangible goods cost and, thus, it is reasonable to speak of theft. Rules that govern tangible goods should not apply on certain kinds of intangible information⁵⁵, given present-day cheap or inexpensive creation and reproduction techniques, which have radically changed art and science industry⁵⁶. Objects, as intangible information, are non-rivalrous and non-excludable⁵⁷. Their consumption by one person does not lessen another person's use of the good and does not exclude others from accessing the same information.

⁵¹ See also Tassos Sakellariopoulos, Researchers and "Closed" Archives: Restrictions and Fluency in Access, Workshop on Archives and Copyright (Proceedings 15.05.2013), p. 28. In Greek. Available: https://www.eae.org.gr/images/ekdoseis_eae/pneumatika.pdf.

⁵² James Boyle, referring to Sonny Bono Copyright Term Extension Act, speaks of Congress's most stupid policy choice. See James Boyle, *The Crime of the (20th) Century, How we threw away our cultural heritage for no good reason (and whether Google Books will bring it back)*, Duke University School of Law, 2009.

⁵³ See also Lawrence Lessig, *Google books search settlement – Static goods, Dynamic bads*, 2009, Berkman Klein Center for Internet and Society.

⁵⁴ See also Prodromos Tsiavos, *Technological and Legal Aspects of Copyright Protection of Audiovisual Archives: Beyond Copyright Law, (Re)appearance of user-author*, Workshop on Archives and Copyright, Proceedings 15.05.2013, id, p. 53. In Greek.

⁵⁵ See Rebecca MacKinnon & James Boyle, *Consent of the Networked: A Conversation about Internet Freedom*, Human Rights Law Society, Duke Law University, 5.04.2012, where Boyle argues that property rules make no sense at all.

⁵⁶ Mark A. Lemley, *IP in a world without scarcity*, *New York University Law Review* [Vol. 90:460], 2015, pp. 460-515.

⁵⁷ See Lawrence Lessig, *Code, Version 2.0*, id, pp. 180-185; Lawrence Summers & J. Bradford DeLong, *The 'New Economy': Background, Historical Perspective, Questions and Speculations, Economic Policy for the Information Economy*, 2001. As Thomas Jefferson put it, "[...] He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me [...]" Thomas Jefferson, letter to Isaac Mcpherson, August 13, 1813, *Writings of Thomas Jefferson, 1790-1826*, vol. 6, edited by H.A. Washington, 1854, pp. 180-81

For instance, when one copies an mp3 file, everyone else may as well copy this same file, which may be simultaneously used by a global audience⁵⁸.

Moreover, some works' economic value depends on use. Namely, the more the uses of a software, the greater the value it is worth. Thus, rules that restrict accessing such works contrast with their economic function, while it is extremely doubtful whether such rules are capable of motivating authors to produce e.g. more software.

For reasons mentioned above, some authors suggest that such "internet works" could be governed by laws, to which public goods are subject⁵⁹.

4.6 Proposals for flexible solutions

Classifying works and treating intangible information as such by amending current laws that govern Intellectual Property would take a long time. Potential radical legislative amendments might be in contrast not only with international *acquis*, but also with existing laws that effectively apply to traditional works.

However, one could, logically, not deny the different nature and dissimilar economic function of each kind of works. Hence, flexible solutions could be implemented to achieve the right balance between conflicting authors' and users' interests. Opt-in mechanisms could be activated to enable authors to express their wish by a clear "affirmative action" with regard to the specific rights, which they would wish to enjoy, and the sorts of uses, which they would wish to allow. In such case, there could be different kinds of protection standards depending on the author's wishes, which would, at some point, ensure full and unimpeded access, while leaving the "door open" to those who would "applaud" strict protection of their works and perhaps commodification of their ideas.

To better understand the need for flexible mechanisms and classification of works, let us mention an example emerged from a Greek reality. Suppose that ten students need to study for university exams. The test will cover a number of subjects included in a book freely available at the university library. However, there may be only one copy of the book in the library. Hence, it would not be a good idea for these ten students to study at the library by simultaneously reading this very same copy of the book. As is often the case in Greece, students would very likely borrow the book, visit a copy-shop and make copies of the book. Then all ten students would study at their homes. Under Greek Law, the penalty for the copy-shop business owner, if she would have copied the book just once, is heavier⁶⁰ than the penalty provided for unintentional killing⁶¹. Moreover, the penalty for this business owner, if she would have copied the book multiple times and, thus, have engaged commercially in copying and committed a felony⁶², is as heavy as the penalty for the mother who intentionally killed her baby during childbirth⁶³.

Some would condemn the example mentioned above. It is true that copying books without the author's license, even for educational purposes, is illegal. However, it should be noted that above penalties could as well apply to minors, who download music and videos from the web on a daily basis, or to our children that run software without license. We do not propose legitimizing piracy, but we suggest that our children should not be treated as dangerous criminals.

Some might argue that the potential adoption of such opt-in mechanisms would be in stark contrast with authors' rights, for the protection of which intellectual property law fights. It could

⁵⁸ Dematerialization technologies have radically changed economics and industries. For revolutionary changes and coming information economics in cases of 3D printing, robotics, synthetic biology and bioprinting see Mark A. Lemley, *IP in a world without scarcity*, id, pp. 471-481.

⁵⁹ James Boyle, *Science 2.0: What if the Web really worked for Science?* Open Minds, Science Gallery, Dublin, 2011.

⁶⁰ See Article 66(1) of Greek Law 2121/1993.

⁶¹ See Article 302 of Greek Criminal Code.

⁶² See Article 66(3) of Greek Law 2121/1993.

⁶³ See Article 303 of Greek Criminal Code.

be argued that these mechanisms would introduce new risks; if creators were obliged to express their wish by a clear affirmative action, some might not wish to publish their works under such conditions and, hence, works would end up in author's drawer. Moreover, in case of no "clear affirmative expression", works might be freely used by global audiences. In the first case, as some might put it, we would face an unprecedented lack of publications, while the second scenario as some might claim would automatically turn authors into "servants of the public good". But we do not propose legislative amendments and, thus, copyright laws would normally apply in cases of no "clear-expression". Besides, an author could, in any case, opt-in and express her wish for strict protection.

Moreover, some could argue that opt-in mechanisms would violate intellectual property law, since the latter may confer rights on authors for the benefit of arts and science, albeit "first of all" grants rights to creators. Under the Universal Declaration of Human Rights, the right to participate in the cultural life is established⁶⁴ and authors' rights are mentioned as second⁶⁵.

Regardless of sequence in which Universal Declaration's provisions appear, the value of works and authors' rights are, indeed, very important. This is the exact reason why it would be preferable to classify works and, thus, highlight their value and to manage creations through flexible mechanisms and, hence, respect authors' true wishes. Although intellectual property rights might be one of legislator's greatest challenges, given that it is intellect that distinguishes between humans and other species, as some authors argue, the amendment of the law is not the only way in which problems may be solved, while, as commentators have aptly put it, the more laws we have, the greater the injustice⁶⁶.

4.7 Conclusion

Legal scholarship aims, among others, to submit opinions and proposals in order to study rules that should or could govern any decision-making process. Although such proposals could be understood as prescriptions addressed to the legislative or judicial bodies⁶⁷, the latter -as some authors argue- are not always listening to academic advice that "they are not prepared to believe"⁶⁸. Hence, many academics in the field of copyright law address their opinions, not so much to relevant decision-makers but, to the public. The latter may then hold the relevant authority accountable for making or applying undesirable, or as some have put it "bad"⁶⁹ laws. If some flexible solutions proposed above were desirable, they could constitute a prescription for the management of works addressed not to decision-makers but to the public or even better to the competent bodies active in the field of culture. Such bodies, being responsible for "providing services" with the overriding objective of people's education, could look out of the window⁷⁰ and undertake such initiatives so as to classify works and activate opt-in mechanisms. This would enable users' unimpeded access to knowledge, which should be

⁶⁴ See Article 27(1) of Universal Declaration of Human Rights ("[...] Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits [...]").

⁶⁵ See Article 27(2) of Universal Declaration of Human Rights ("[...] Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author [...]").

⁶⁶ Dionisia Kallinikou, Archives, Libraries and Intellectual Property, Proceedings – Conference on "Archives, Libraries and Law in Information Society", National Library of Greece, 2008, p. 79. In Greek.

⁶⁷ Edward Rubin, On Beyond Truth: A Theory for Evaluating Legal Scholarship, 1982, 80 Cal L Rev, 889-963, pp. 903-904, with further references

⁶⁸ Pierre Schlag, Pre-figuration and Evaluation, 1992, 80 Cal L Rev, 965-977, p. 972.

⁶⁹ Patrick R. Goold, The Evolution of Normative Legal Scholarship: The Case of Copyright Discourse, European Journal of Legal Studies, Vol. 4, No. 2, p. 22.

⁷⁰ For the need for cultural bodies to take into account users' needs while designing digital libraries, see P. Ngimwa, A. Adams, J. Underwood, Collaborative Ownership in Cross-Cultural Educational Digital Library Design, in M. Agosti et al. (eds), Research and Advanced Technology for Digital Libraries, 13th European Conference, ECDL 2009, Corfu, Greece, Springer, pp. 239-249.

promoted by new technologies so as to guarantee users' active participation in and, thus, awareness of decision-making process⁷¹.

Besides, experience and knowledge, when shared, constitute foundations upon which democracy⁷² can be built⁷³. The latter can be understood as a "negotiation process", in which all interested parties actively participate in order to make final decisions dependent on public's wish⁷⁴. Thus, implementation of flexible solutions that would guarantee unimpeded access to and experiments in knowledge would enable each user not only to contribute in her own unique way to creating new intellectual movements but also to submit her own special proposals and ideas, as the initiator of information revolution and democratization.

Would it be that unreasonable to distinguish between books and computer programs, or between songs and academic scholarship? Why should users be restricted and not be able to use recipes or software for a seventy-year-period after the chef's or the programmer's death? If it is true that multiple art movements, such as Jazz or Drama⁷⁵, or important scientific works, like GNU, were created due to unimpeded access to previous works, then we have already been denied "many jazz movements". And if some are not interested in "a-new-Jazz", then it should be noted that information, upon which one has to stand so as to create this "new-Jazz", is imprisoned in same place, where items of information, which could be used for the creation of a drug that would treat cancer or even aging⁷⁶, are enclosed.

⁷¹ Iordanis Kavathatzopoulos, Information technology, democratic societies and competitive markets, in Maria Bottis, *An Information Law for the 21st Century* (Third International Seminar on Information Law 2010), Ionian University, Corfu, Greece, Nomiki Bibliothiki, 2011, p. 114.

⁷² Democracy is a political system made by citizens and for citizens themselves. See Ioannis Mpoitsis & Nikos Koutsoupas, *Freedom of Information: An interdependent relationship and the role that Internet can play*, in Bottis Maria – Alexandropoulou Eugenia – Ioannis Iglezakis (eds), 6th International Conference on Information Law and Ethics, *Lifting the Barriers to Empower the Future of Information Law and Ethics*, University of Macedonia, 2014, p. 26.

⁷³ Eli Pariser, *The Filter Bubble, How the New Personalized Web Is Changing What We Read and How We Think*, Penguin Group, 2011, p. 50.

⁷⁴ Iordanis Kavathatzopoulos, id, pp. 109-110.

⁷⁵ See Richard Stallman, *Free Software Free Society*, id, p. 83.

⁷⁶ Aubrey de Grey studies techniques for "treating aging". See for instance: <http://www.sens.org/search/node/aubrey>.