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# Open Access Publishing in the European Union: The Example of Scientific Works

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## **Abstract**

Access to information resources and publicly-funded research outcomes have been considered in Europe during the last decade.<sup>1</sup> Open access practice became part of the European institutions' agenda since 2006 within the final report of the European Research Advisory Board.<sup>2</sup> The Lisbon Treaty (2007) explicitly confirmed the European Union's commitment to free circulation of scientific knowledge (Article

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<sup>1</sup> Nikos Koutras, 'Proceedings of the 4th International Conference of Information Law and Ethics (ICIL)' in *Institutional Open Access Repositories in College Education: A Proposal for Their Role in Open Educational Resources in Greece* (Nomiki Bibliothiki, 2011) e-book; Nikos Koutras, 'Institutional Repositories of Open Access: A Paradigm of Innovation and Changing in Educational Politics' (2013) 106 *Procedia - Social and Behavioral Sciences* 1499 ('Institutional Repositories of Open Access'); Monica Marra, 'The Recent Italian Regulations about the Open-Access Availability of Publicly-Funded Research Publications, and the Documentation Landscape in Astrophysics' <<http://arxiv.org/abs/1407.6296>>; Lucie Guibault and Thomas Margoni, 'Legal Aspects of Open Access to Publicly Funded Research' in *Enquiries into Intellectual Property's Economic Impact* (OECD Publishing, 2015) 373; David Coldewey, 'EU Mandates Open Access for All Publicly Funded Research by 2020' <<https://techcrunch.com/2016/05/27/eu-mandates-open-access-for-all-publicly-funded-research-by-2020/>>.

<sup>2</sup> European Research Advisory Board, *Scientific Publication: Policy on Open Access* (No Final Report, 2006) 14.

179 TFEU) and the dissemination of research results (Article 183 TFEU). In this regard, the Horizon 2020 program illustrates the importance of open access policy towards further dissemination of scientific information. The European Commission also introduced in July 2012 a scientific information package to empower the advantages of public investments in research (European Recommendation 2012/ 417/ EU) which has been recently revisited (May 2018). This paper argues that open access practice has a potential to enhance copyright governance and related policies. The first part of the paper is aimed at a thorough conceptualization of open access practice. The second part discusses the emergence of open access at International and European level and responses from institutions, respectively. The third part argues about the lack of open access implementation in Europe with some examples from Member States. The paper concludes with recommendations as to how integration of open access in the European copyright law policy contributes to furthering access opportunities to scientific works.

**Keywords:** open access, copyright, policies, governance

## **Introduction**

Copyright law is aimed at stimulating creativity and innovation by providing authors exclusive rights (i.e. economic and moral rights) to their original expression.<sup>3</sup> Typically, scientists often transfer (all or some of) their economic rights to the publishers of scientific journals.<sup>4</sup> However, copyright law should also balance the interests of those who create content and own those exclusive rights with the public

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<sup>3</sup> Isabella Alexander, *Copyright Law and the Public Interest in the Nineteenth Century* (Bloomsbury Publishing, 2010); Benedict Atkinson, *Copyright Law: Volume III: Copyright in the 21st Century* (Routledge, 2017) ('*Copyright Law*').

<sup>4</sup> Giuliana Battisti et al, 'Open Innovation in Services: Knowledge Sources, Intellectual Property Rights and Internationalization' (2015) 24(3) *Economics of Innovation and New Technology* 223 ('Open Innovation in Services').

interest in having the widest possible access to that content.<sup>5</sup> In theory, open access could support copyright law in achieving these objectives by facilitating access to scientific knowledge ultimately promoting progress in science. Nonetheless, that requires that the copyright law framework takes due account of open access obligations .<sup>6</sup>

## 1. **Open access milestones: a conceptual approach**

The first initiative related to open access took place in Budapest 2002 with the Budapest Open Access Initiative (BOAI) statement. Its origins stem from the Open Society Institute<sup>7</sup> which invited a group of people representing several institutions, working in this area to a discussion initiated on December 2001. In my point of view, informal actors<sup>8</sup> of governance (e.g. institutions and universities) involvement in this initiative show the importance of informal perspective towards formal governance. Thus, the participation from institutions and universities indicate they can have a word concerning information sharing and exchange. Hence, associated governance should be constructed based on ‘directions’ and discussion from informal governance

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<sup>5</sup> Lionel Bently and Brad Sherman, *Intellectual Property Law* (Oxford University Press, 2014).

<sup>6</sup> Guibault and Margoni (n 1).

<sup>7</sup> The Open Society Institute is part of the foundation network founded by philanthropist George Soros and it is committed to provide assistance and financial support to achieve this goal. Its intention is to use its resources and influence to extend and support institutional self-archiving, to launch new open-access journals, and to help an open-access journal system become economically self-sustaining. See also Diane Stone, ‘Private Philanthropy or Policy Transfer? The Transnational Norms of the Open Society Institute’ (2010) 38(2) *Policy & Politics* 269 (‘Private Philanthropy or Policy Transfer?’).

<sup>8</sup> These institutions are Open Society Institute, Electronic Society for Social Scientists, Scholarly Publishing and Academic Resources Coalition (SPARC), Next Page Foundation and Public Library of Science (PLOS) participated in this initiative and show such importance.

actors, in the examined case. In accordance with the BOAI statement, issued on 14 February 2002, two strategies form the governance framework to achieve open access as follows: a) either with self-archiving (i.e. green open access) or b) with publishing in journals where authors cover associated expenses (i.e. gold open access through article processing charges).

According to this statement, open access means that there is free access online to literature that scholars give to the world without expectation of payment. In other words, free availability of such literature on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only impediment on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.<sup>9</sup> The past decade has attested contemporary developments of technology and rapid growth of research capacity in producing large-scale biological information, both of which were associated with instant growth of biomedical literature.<sup>10</sup> As a result, concerns regarding spreading and access opportunities to biomedical research outcomes emerged from relevant research discipline and more

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<sup>9</sup> 'Budapest Open Access Initiative (2002)' (2012) 3(2) *JLIS.it*

<<http://search.proquest.com.simsrad.net.ocs.mq.edu.au/docview/1270759591/abstract/B3755CA54FCA463APQ/1>>.

<sup>10</sup> Zhiyong Lu, 'PubMed and beyond: A Survey of Web Tools for Searching Biomedical Literature' (2011) 2011 *Database*

<<https://academic.oup.com/database/article/doi/10.1093/database/baq036/460587/PubMed-and-beyond-a-survey-of-web-tools-for>> ('PubMed and Beyond').

than a year later than the previous initiative, June 2003, another one emerged on associated institutions' behalf as support for open access in a meeting on publishing via open access in the USA. Thus, the biomedical research community stimulated such discussion as it was concerned about ways to move on broadening access opportunities to scientific biomedical findings.

Indeed, the BOAI statement, spurred discussion about open access and more institutions got involved in the new initiative<sup>11</sup> and concluded to the renowned Bethesda Statement on Open Access Publishing (BSOAP). At the headquarters of the Howard Hughes Medical Institute in Chevy Chase, Maryland, a document released to stimulate discussion within the biomedical research community on how to proceed, as rapidly as possible, to the widely-held goal of providing open access to the primary scientific literature. Therefore, the BSOAP initiative shows that biomedical research community was also concerned about how to broaden access opportunities to scientific information. Thus, it helps me argue that additional participation in support of open access can be significant for the good governance of OARs regimes as consideration about further access to scientific information is also directed to the biomedical discipline. Therefore, it determines a more comprehensive approach for the green open access governance towards share of scientific information. The overarching goal of the BSOAP statement was to agree on crucial steps that relevant parties can promote the rapid and efficient transition to the business model offered

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<sup>11</sup> The Howard Hughes Medical Institute, Health Equity Division of the Rockefeller Foundation, European Molecular Biology Organization, Lawrence Berkeley National Lab of the University of California Berkeley, New England Biolabs, McKusick-Nathans Institute of Genetic Medicine at John Hopkins University, Stanford University, Berkman Centre for Internet & Society of Harvard University, the American Society for Cell Biology, Claude Moore Health Sciences Library of the University of Virginia and University of Montreal.

from open access for publishing. The BSOAP determines another significant moment for open access. Its rationale builds upon the BOAI and enriches the definition of open access.

BSOAP is worthy to be examined as its structure is two-folded and states that:

a) The author(s) and copyright holder(s) grant(s) to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship, as well as the right to make small numbers of printed copies for their personal use, and b) A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in a suitable standard electronic format is deposited immediately upon initial publication in at least one online repository that is supported by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving.<sup>12</sup>

Few months after the BSOAP initiative, October 2003, another one worthy to be considered stems from a meeting organized in Berlin. The Max Planck Society and the European Cultural Heritage Online project co-organized a meeting and brought together international experts with the aim of producing a new web-based research environment using the open access as a tool for having scientific knowledge and cultural heritage accessible worldwide. Consequently, leading international research, scientific, and cultural institutions issued and signed the Berlin Declaration on Open

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<sup>12</sup> 'Bethesda Statement on Open Access Publishing (2003)' (2012) 3(2) *JLIS.it*

<<http://search.proquest.com.simsrad.net.ocs.mq.edu.au/docview/1270759587/abstract/7234237835F04102PQ/1>>.

Access to Knowledge (BDOAK) in the Sciences and Humanities, a document that outlines concrete steps to promote the Internet as a medium for disseminating global knowledge.

Similarly, with the BSOAP statement the BDOAK builds upon the BOAI, which calls for the results of research produced by authors without expectation of payment to be made widely available on the Internet, and to carry permissions necessary for users to use and re-use results in a way that accelerates the pace of scholarship and research. It should be noticed that BDOAK statement has been signed by nearly 300 research institutions, libraries, archives, museums, funding agencies, and governments from around the world. The geographic and disciplinary diversity of the support for the Berlin Declaration is illustrated by the signatories, which range from the leaders of the Max Plank Society to the Chinese Academy of Sciences, to Academia Europaea. Most recently, both Harvard University and the International Federation of Library Associations added their names to the roster of signatories.<sup>13</sup> In such a context, an increasingly important question is whether the present IP governance framework, most relevantly comprising of copyright laws, is adequate to deal with issues arising out of open access.<sup>14</sup> It is also argued that today's socio-technological environment provokes a potential reshape of copyright law policy key areas.<sup>15</sup> Given this fact the paper is going to focus on the present European copyright framework, associated regulations and directives.

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<sup>13</sup> 'Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities' (2012) 3(2)

*JLIS.it, Italian Journal of Library and Information Science.*

<sup>14</sup> John C Newman and Robin Feldman, 'Copyright and Open Access at the Bedside' (2011) 365(26) *New England Journal of Medicine* 2447.

<sup>15</sup> Rebecca Giblin and Kimberlee Weatherall, *What If We Could Reimagine Copyright?* (ANU Press, 2017) <<https://press.anu.edu.au/publications/what-if-we-could-reimagine-copyright>>.



From my point of view public policy objectives can establish good governance to enhance the balance between copyright proprietors' and end-users' interests. The green open access which determines an open access mechanism, can establish a fair manner to disseminate information to public interest. All in all, this research paper argues that there potential to improve present copyright laws through integration of open access to relevant policy. Integration here does not necessarily mean change of copyright standards. The section below enlightens the background of discussion regarding the emergence of open access phenomenon through the lens of governance.

## **2. The emergence of open access from a governance perspective**

### ***2.1 Background of copyright protection on international level: fundamentals***

Scientific works such as articles, research papers and research projects, conference papers, and research reports are copyright protected.<sup>16</sup> It should be also considered the fact that copyright protects the original expression of ideas, and not ideas themselves.<sup>17</sup> As a result all these types of scientific work should to be expressed in some original form.<sup>18</sup> This basic principle is implicitly enshrined in the

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<sup>16</sup> Tatiana-Eleni Synodinou, 'The Portability of Copyright-Protected Works in the EU' in Tatiana-Eleni Synodinou et al (eds), *EU Internet Law: Regulation and Enforcement* (Springer International Publishing, 2017) 217 <[https://doi.org/10.1007/978-3-319-64955-9\\_10](https://doi.org/10.1007/978-3-319-64955-9_10)>; Matthias Leistner and Axel Metzger, 'The EU Copyright Package: A Way Out of the Dilemma in Two Stages' (2017) 48(4) *IIC - International Review of Intellectual Property and Competition Law* 381 ('The EU Copyright Package').

<sup>17</sup> Stephen Fishman, *The Copyright Handbook: What Every Writer Needs to Know* (Nolo, 2017) ('*The Copyright Handbook*'); Simon Stokes, *Digital Copyright: Law and Practice* (Bloomsbury Publishing, 2019) ('*Digital Copyright*').

<sup>18</sup> Thomas Margoni, 'The Harmonisation of EU Copyright Law: The Originality Standard' in Mark Perry (ed), *Global Governance of Intellectual Property in the 21st Century: Reflecting Policy Through Change* (Springer International Publishing, 2016) 85 <[https://doi.org/10.1007/978-3-319-31177-7\\_6](https://doi.org/10.1007/978-3-319-31177-7_6)>

international accord in the copyright field, the Berne Convention of 1886 which states that:

“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 dramatico-musical 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.” (Berne Convention, Article 2).

From international perspective, the World Intellectual Property Organization is considered as the first international organization that contributed in a more explicit manner to enhance intellectual property protection. With a more distinct statement [i.e. Art. 2 of the WIPO Copyright Treaty (WCT) of 1996, as well as in the Art. 9(2) of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of 1994] it is respectively established the fact that:

“Copyright protection [shall] extend[s] to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such”.<sup>19</sup>

In accordance with this copyright law principle, does not suffice for an idea to be

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(‘The Harmonisation of EU Copyright Law’); Irini A Stamatoudi, ‘Originality under EU Copyright Law’ [2017] *Research Handbook on Copyright Law*

<<https://www.elgaronline.com/view/edcoll/9781785361425/9781785361425.00008.xml>>.

<sup>19</sup> Ben Willis, ‘The Arguments For and Against the TRIPS Agreement’, *E-International Relations* (2013) <<http://www.e-ir.info/2013/12/23/the-arguments-for-and-against-the-trips-agreement/>>.

properly ‘shaped’ by a scientist’s mind. Yet, an idea should be expressed in a form that can be perceived by others, another principle which is also known as the idea-expression dichotomy.<sup>20</sup>

The discussion about copyrights and related protection regime established on international level is quite broad and traditionally encompasses a bundle rights such as e.g. the right of reproduction of the work, the right of distribution of the work and of copies thereof, the right of communication of the work to the public including by public performance, the right of rental, and the right of translation, adaptation, arrangement and alteration of the work.<sup>21</sup> At this point, The right of reproduction is considered as one of the most important copyrights that gives proprietors the right to reproduce the work in any form or manner.<sup>22</sup> The right of reproduction covers verbatim copies of a protected work as well as partial or complete reproductions of the work in other formats.<sup>23</sup> Should we place that differently, methods of reproduction

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<sup>20</sup> TG Agitha, ‘Idea-Expression Dichotomy and Originality Requirements for Copyright Protection: An Analysis of the Jurisprudential Underpinnings of the Judicial Pronouncements in India’ in Manoj Kumar Sinha and Vandana Mahalwar (eds), *Copyright Law in the Digital World: Challenges and Opportunities* (Springer, 2017) 1 <[https://doi.org/10.1007/978-981-10-3984-3\\_1](https://doi.org/10.1007/978-981-10-3984-3_1)> (‘Idea-Expression Dichotomy and Originality Requirements for Copyright Protection’).

<sup>21</sup> Sara Bannerman, *International Copyright and Access to Knowledge* (Cambridge University Press, 2016); Paul Edward Geller, *International Copyright: The Introduction*, vol 1 (Social Science Research Network, 1st ed, 2018) <<https://papers.ssrn.com/abstract=3508132>> (‘*International Copyright*’).

<sup>22</sup> Jessica Silbey, ‘Justifying Copyright in the Age of Digital Reproduction: The Case of Photographers The Discursive Turn in Copyright’ (2018) 9(2) *UC Irvine Law Review* 405 (‘Justifying Copyright in the Age of Digital Reproduction’).

<sup>23</sup> Julia Cage, Nicolas Herve and Marie-Luce Viaud, *The Production of Information in an Online World: Is Copy Right?* (SSRN Scholarly Paper No ID 2672050, Social Science Research Network, 4 April 2019) <<https://papers.ssrn.com/abstract=2672050>> (‘*The Production of Information in an Online*

such as a design, an engraved plate, lithography, procedures of printing and photocopying, typewriting, and various other procedures known or yet to be discovered are acts covered by the right of reproduction.<sup>24</sup> The scope to which these acts also include specific forms of adaptation is not clearly stated and both the Berne Convention and national implementations protect adaptations either independently or as part of the reproduction right.<sup>25</sup> What is lacking of reference in the Berne convention is related with the right to distribute copies.<sup>26</sup>

In 1996, the WCT covered the gap by establishing that:

“authors of literary and artistic works shall enjoy the exclusive right of authorising the making available to the public of the original and copies of their works through sale or other transfer of ownership” (WCT, Art 6).

Accordingly, WCT signatories that did not already provide a right to disseminate protected works have implemented this provision.

Previous discussion sets up the background as regards copyright protection and its fundamentals established through significant international conventions. Those conventions reflect that copyright protection is of paramount importance and should

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*World*’).

<sup>24</sup> Luzhou Li, ‘6 Bidding on the Rights to Stream: The Industry, Copyright, and New Cultural Flows’ in *Zoning China: Online Video, Popular Culture, and the State* (MITP, 2019) 139

<<http://ieeexplore.ieee.org/document/8925387>> (‘6 Bidding on the Rights to Stream’).

<sup>25</sup> Shlomit Yanisky-Ravid, ‘The Hidden Though Flourishing Justification of Intellectual Property Laws: Distributive Justice, National versus International Approaches’ (2017) 21(1) *Lewis & Clark Law Review* 1 (‘The Hidden Though Flourishing Justification of Intellectual Property Laws’).

<sup>26</sup> Heather Berry, ‘Managing Valuable Knowledge in Weak IP Protection Countries’ (2017) 48(7) *Journal of International Business Studies* 787; Constantin Vică and Emanuel-Mihail Socaciu, ‘Mind the Gap! How the Digital Turn Upsets Intellectual Property’ (2019) 25(1) *Science and Engineering Ethics* 247.

be part of national governments' agenda. But still concerns about the importance of these agreements arise. What the institutions' perspective in that respect? What is their role? How this can be reflected? At this point, the discussion should enlighten institutional aspects towards further access to information sources through open access repositories.

### *2.1.1 The Confederation of Open Access Repositories*

The Confederation of Open Access Repositories (COAR) establishes an international association with more than 100 members that represent a plethora of opinions from libraries, universities, research institutions, government funders and others.<sup>27</sup> In fact, the COAR brings together the repository community and major repository nodes to build capacity, align policies and practices, and act as a global actor regarding self-archiving practices and green open access.

A vital priority regarding COAR is to align repository nodes towards a seamless united repository network so as to demonstrate that repositories provide a desirable and viable solution to distribute information sources.<sup>28</sup>

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<sup>27</sup> Tránsito Ferreras-Fernández, Francisco J García-Peñalvo and José A Merlo-Vega, 'Open Access Repositories as Channel of Publication Scientific Grey Literature' in *Proceedings of the 3rd International Conference on Technological Ecosystems for Enhancing Multiculturality* (Association for Computing Machinery, 2015) 419 <<https://doi.org/10.1145/2808580.2808643>>; Bijan Roy, Subal Biswas and Parthasarathi Mukhopadhyay, 'Towards Open Access Self Archiving Policies: A Case Study of COAR' (2018) 28(1) *LIBER Quarterly* 1 ('Towards Open Access Self Archiving Policies').

<sup>28</sup> Eloy Rodrigues and Kathleen Shearer, 'Next Generation Repositories: Behaviours and Technical Recommendations of the COAR Next Generation Repositories Working Group' [2017] *Copyright, Fair Use, Scholarly Communication, etc.* <<https://digitalcommons.unl.edu/scholcom/64>> ('Next Generation Repositories'); Nikos Koutras, *Building Equitable Access to Knowledge Through Open Access Repositories* (Information Science Reference, 2019).

On 20 May 2015, the COAR released a statement which 1600 individuals and organizations from 52 countries signed and criticizes Elsevier's introduced (30 April 2015) policy that prevents sharing and open access to information.<sup>29</sup> What is more, the statement proposes Elsevier to re-examine its publishing policy which forces an embargo period for up to 48 months.<sup>30</sup>

Another interesting act made by COAR that should be examined is the joint statement with UNESCO regarding open access practice published on 9 May 2016. The statement focuses on policy makers and highlights the need for further implementation of open access.<sup>31</sup> Additionally, the statement illustrates advantages that stem from networking between stakeholders which support open access in a more official way. Scholars claim that green open access through self-archiving becomes more widespread thus green open access plays an increasingly crucial role in the ecosystem, acting as the foundation for a distributed, globally networked infrastructure for scholarly communication.<sup>32</sup> Therefore, depositing in open access repositories is gradually gaining ground in international discussion as an efficient instrument of scholarly communication.<sup>33</sup> In turn, such instances indicate that the

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<sup>29</sup> Josh Bolick, 'Exploiting Elsevier's Creative Commons License Requirement to Subvert Embargo' <<https://kuscholarworks.ku.edu/handle/1808/24107>>.

<sup>30</sup> Shaun Khoo and Belinda Lay, 'A Very Long Embargo: Journal Choice Reveals Active Non-Compliance with Funder Open Access Policies by Australian and Canadian Neuroscientists' (2018) 28(1) *LIBER Quarterly* 1 ('A Very Long Embargo').

<sup>31</sup> Eloy Rodrigues, 'Towards a Global Network of Open Access' (2015) 1 *Science* 1.

<sup>32</sup> Valerie McCutcheon, William Nixon and Pablo De Castro, *Repository Profile: University of Glasgow - 'Enlighten' IR & Research System. Other. Confederation of Open Access Repositories* 2014 <<http://eprints.gla.ac.uk/98412/1/98412.pdf>>.

<sup>33</sup> Ferreras-Fernández, García-Peñalvo and Merlo-Vega (n 27); A Abrizah, Noorhidawati A and Kiran

international players can establish efficient networks for transmission and further dissemination of scholarly information.

### 2.1.2 *The Open Access Scholarly Publishers Association*

Although publishing via open access emerged as an additional publishing model which was regarded as experimental, today it is a mainstream approach for disseminating scientific developments or copyrighted works. Groups involved in publishing through open access commenced discussions about the potential of constructing a formal consortium that would support open access practice as an emerging business model for publishing.

The discussion led to initiatives that formed the Open Access Scholarly Publishers Association (OASPA).<sup>34</sup> OASPA is a trade association established in 2008 to represent the interests of open access journals and book publishers worldwide in all scientific, technical and scholarly disciplines. Its central objective is to distribute knowledge by sharing information, setting standards, and aiding, educating and promoting innovation.<sup>35</sup> In addition, OASPA indicates that the scholarly publishing industry is subject to a great shift as of ongoing technological advancements that

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K, 'Global Visibility of Asian Universities' Open Access Institutional Repositories' (2017) 15(3) *Malaysian Journal of Library & Information Science* 53; Koutras, *Building Equitable Access to Knowledge Through Open Access Repositories* (n 28).

<sup>34</sup> John Willinsky, 'Scholarly Associations and the Economic Viability of Open Access Publishing' (2016) 1(1) *Test Journal - JATSParser*

<<https://sandbox.publicknowledgeproject.org/index.php/publicknowledge/article/view/34>>.

<sup>35</sup> Julia Frankland and Margaret A Ray, 'Traditional versus Open Access Scholarly Journal Publishing: An Economic Perspective' [2017] *Journal of Scholarly Publishing*

<<https://www.utpjournals.press/doi/abs/10.3138/jsp.49.1.5>> ('Traditional versus Open Access Scholarly Journal Publishing').

enhance access to copyrighted works.<sup>36</sup> As literature reflects, such technological growth implies a transition of the publishing industry from printed abstracting services to online databases.<sup>37</sup>

## **2.2. European level**

Narrowing discussion to the European context, the InfoSoc Directive expressly prescribes the right of distribution, something that was previously required only for specific subject matter such as computer programs, databases, and some neighbouring rights.<sup>38</sup> Accordingly, distribution of, for example, copies of scientific articles, books, monographs, research surveys, research reports and other sort of research outcomes determines an act that requires proprietor's consent.<sup>39</sup> Yet, a significant limitation to the right of distribution stems from the principle of 'exhaustion' or 'first sale doctrine' in accordance with the resale of tangible copies of works (e.g. books) is allowed without proprietor's consent once the copies have been displayed in market with his consent.<sup>40</sup>

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<sup>36</sup> Irving Louis Horowitz, *Communicating Ideas: The Politics of Scholarly Publishing* (Routledge, 2017) ('*Communicating Ideas*'); Karen Meijer-Kline and John Willinsky, 'Copyright Contradictions in Scholarly Publishing' (2019) 1(1) *KPU Demonstration Journal* <<https://journals.kpu.ca/index.php/demo/article/view/1>>.

<sup>37</sup> Charles Oppenheim, 'Electronic Scholarly Publishing and Open Access' (2008) 34(4) *Journal of Information Science* 577.

<sup>38</sup> Gustavo Ghidini, 'Exclusion and Access in Copyright Law: The Unbalanced Features of the InfoSoc Directive' [2013] *Methods and Perspectives in Intellectual Property* <<https://www.elgaronline.com/view/edcoll/9781782549970/9781782549970.00023.xml>> ('Exclusion and Access in Copyright Law').

<sup>39</sup> Liliana Giusti [UNESP Serra and José Eduardo Santarem [UNESP Segundo, 'The first sale doctrine and the digital books' [2018] *Perspectivas em Ciencia da Informacao* 19.

<sup>40</sup> Katya Fisher, 'Once upon a Time in NFT: Blockchain, Copyright, and the Right of First Sale



In 2012, the European Commission published a communication entitled *Towards better access to scientific information: Boosting the benefits of public investments in research*.<sup>41</sup> In accordance with the examined communication, the Commission notices that considerations on ways to enhance the distribution of scientific research outcomes have focused on access to scientific publications. Yet, it is getting increasingly crucial to improve access to resources of scientific research which form substantial part of the quantitative analysis supporting many scientific publications.<sup>42</sup>

The Commission stresses out that within a more complete and wider access to scientific publications and data, innovation will accelerate, and researchers will collaborate more so that duplication of effort will be avoided. Moreover, open scientific research outcomes will enhance researchers' capacity to build on previous research efforts.<sup>43</sup> It should be also mentioned that the communication marks an official new step towards further open access to publicly funded research outcomes.

Scientific publications do not solely represent the major objective to be accomplished in the context of an open access policy. Research outcomes, upon

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Doctrine 2019 AELJ Spring Symposium: Digital Art & Blockchain' (2019) 37(3) *Cardozo Arts & Entertainment Law Journal* 629 ('Once upon a Time in NFT').

<sup>41</sup> European Commission, 'News Archive - Communication of the European Commission: Towards Better Access to Scientific Information: Boosting the Benefits of Public Investments in Research', *VERA - Forward Visions on the European Research Area* (2012) <<http://eravisions.eu/object/news/15>> ('News Archive - Communication of the European Commission').

<sup>42</sup> Rachel Volentine et al, 'Usability Testing to Improve Research Data Services' [2017] *Qualitative and Quantitative Methods in Libraries* <[https://trace.tennessee.edu/utk\\_dataone/206](https://trace.tennessee.edu/utk_dataone/206)>.

<sup>43</sup> Adnan A Hyder, Abbas Rattani and Bridget Pratt, 'Research Capacity Strengthening in Low- and Middle-Income Countries: Ethical Explorations' (2017) 45(1) *The Journal of Law, Medicine & Ethics* 129 ('Research Capacity Strengthening in Low- and Middle-Income Countries').

which publications are based, should also be made available to the public.<sup>44</sup> To implement this policy, the European Commission set up a pilot initiative on open access to peer reviewed research articles in its Seventh Research Framework Programme (FP7), also known as OpenAIRE project, to ensure that the results of the research it funds are disseminated as widely and effectively as possible to guarantee maximum exploitation and impact in the world of researchers and beyond.<sup>45</sup> OpenAire project pursues three objectives: to build support structures; to establish and operate an electronic infrastructure; and to manipulate research datasets. All of this under open access conditions.<sup>46</sup>

Following on from this, the Commission agreed that open access to scientific publications should be a general principle of the current Horizon 2020 research framework programme.<sup>47</sup> In the model grant agreement for Horizon 2020, the Commission states that, in addition to scientific publications, the beneficiaries must deposit the data and associated metadata that are needed to validate the outcomes presented in scientific publications in a research data repository as soon as possible.

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<sup>44</sup> Phoebe Koundouri et al, *Open Access in Scientific Information: Sustainability Model and Business Plan for the Infrastructure and Organisation of OpenAIRE* (No 2001, Athens University of Economics and Business, February 2020) <<https://ideas.repec.org/p/aue/wpaper/2001.html>> ('*Open Access in Scientific Information*').

<sup>45</sup> L Chan and F Loizides, *Expanding Perspectives on Open Science: Communities, Cultures and Diversity in Concepts and Practices: Proceedings of the 21st International Conference on Electronic Publishing* (IOS Press, 2017) ('*Expanding Perspectives on Open Science*').

<sup>46</sup> Pablo de Castro et al, 'Progress in the Implementation of the OpenAIRE Guidelines for CRIS Managers' (2017) 106 *Procedia Computer Science* 104.

<sup>47</sup> Joy Davidson and Helene Brinken, 'FOSTER Plus Project: Fostering the Practical Implementation of Open Science in Horizon 2020 and Beyond' (2018) <<https://eprints.gla.ac.uk/171423/>> ('FOSTER Plus Project').

The beneficiaries must also take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate the data, free of charge for any user. In all cases, the Commission also encourages authors to retain their copyright and grant adequate licences to publishers.

There is no obligation for Member States to adopt such open access policy fully complied with the rationale of open access as addressed through either OpenAIRE project or Horizon 2020 program. Given this, a mosaic of open access policies across Europe varies from the mandatory ‘Golden Road’ for publications and data established by the Research Councils of the United Kingdom (RCUK), to the ‘Green Road’ for publications and data of the Netherlands, to the ‘Green Road’ for publications in Germany and to other more equivocal policies in a number of Member States (i.e. Belgium, Italy and Spain) which depicts the impact on policy drafting with different objectives aligned.<sup>48</sup> In the recent years, the national research councils of the UK and the Netherlands have issued policy statements according to which research grants will be awarded only provided that the applicants commit to publishing their results, under open access conditions. In this respect, the Library of Katholique University (KU) of Leuven in Belgium, is a front runner regarding open access advocacy through the establishment of the KU Leuven Fund for Fair Open Access provided to its research scholars. Particularly, this funding scheme fosters the production of new and innovative publishing models which are cost-effective and put scholars back in charge of the dissemination of their research outcomes.

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<sup>48</sup> Siobhan Bowman et al, ‘It’s Not Easy Being Green: Supporting Implementation of an Open Access to Publications Policy at University College Cork’ (2017) <<https://cora.ucc.ie/handle/10468/4070>> (‘It’s Not Easy Being Green’).

Previous discussion shows that implementation of open access practice is gradually taking place regarding several Member States' research agendas whereas lack of such implementation exists for other Member States. In other words, implementation of the recommendation varies from one Member State to another and the following section considers such variety and the lack of implementation.

### **3. Lack of operationalization and integration of open access in the European copyright law**

Since the recommendation on open access to scientific research outcomes was published, the crucial threshold of accessibility to fifty percent of papers has been crossed.<sup>49</sup> Yet, this figure is an average and the implementation of the EC recommendation varies from one country to another. Currently, the most important issue is to monitor the different steps of implementation and to examine reasons of such variation.

Recent postdoc fellowships projects conducted in Europe by the author provided further information concerning implementation of open access. Particularly, there are three layers of open access implementation in the European Union: a) no national open access mandate and policy; b) consultation in progress to implement a national policy; and c) coordinated national policy by a recommendation.

#### ***3.1 No national open access mandate and policy***

The Member States that have not yet implemented a national open access policy are Romania, Cyprus, Greece, Estonia, Bulgaria, Malta, Slovakia, Lithuania,

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<sup>49</sup> Lisiane Lomazzi and Ghislaine Chartron, 'The Implementation of the European Commission Recommendation on Open Access to Scientific Information: Comparison of National Policies' (2014) 34(3–4) *Information Services & Use* 233 ('The Implementation of the European Commission Recommendation on Open Access to Scientific Information').

Czech Republic, Luxembourg. Those countries are distinguished by common characteristics that clarify the status quo regarding the lack of national implementation of open access. Firstly, these countries but Estonia, Luxembourg and Czech Republic have as gross domestic product (GDP) less than 1% as percentage of expenditures on research and development while the average low percentage is 1.77% and the higher is 2.06%.<sup>50</sup> Secondly, these countries are below average concerning the number of researchers (3127 researchers per million inhabitants).<sup>51</sup> Finally, these countries but Greece and Czech Republic publish less than 1000 scientific articles per year.<sup>52</sup>

Due to these such stats and records it can be argued that these countries are stakeholders that play limited role in the discussion about open access implementation in Europe. In spite of the later realizable budget savings thanks to open access to scientific publications, those countries cannot afford to set up infrastructures and open access funds.<sup>53</sup> In some cases, the appropriate infrastructure for open access to be

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<sup>50</sup> Rita Freimane and Signe Bāliņa, 'Research and Development Expenditures and Economic Growth in the EU: A Panel Data Analysis' (2016) 29(1) *Economics and Business* 5 ('Research and Development Expenditures and Economic Growth in the EU').

<sup>51</sup> Reinhilde Veugelers and Linda Van Bouwel, 'The Effects of International Mobility on European Researchers: Comparing Intra-EU and U.S. Mobility' (2015) 56(4) *Research in Higher Education* 360 ('The Effects of International Mobility on European Researchers'); Michael Byram, Adelheid Hu and Mizanur Rahman, 'Are Researchers in Europe European Researchers? A Study of Doctoral Researchers at the University of Luxembourg' (2019) 44(3) *Studies in Higher Education* 486 ('Are Researchers in Europe European Researchers?').

<sup>52</sup> Marek Kwiek, 'The Internationalization of Research in Europe: A Quantitative Study of 11 National Systems From a Micro-Level Perspective' (2015) 19(4) *Journal of Studies in International Education* 341 ('The Internationalization of Research in Europe').

<sup>53</sup> Thomas Eger and Marc Scheufen, *The Economics of Open Access: On the Future of Academic*

implemented exists but such willing for implementation encounters researchers' lack of awareness.<sup>54</sup>

### ***3.2. Consultation in progress in order to implement a national policy***

Since 2009, in the Netherlands Dutch Universities Rectors indicated their willing to encourage implementation of open access. The *Vereniging Van Universiteiten (VSNU)*<sup>55</sup> made an agreement with Springer so as articles composed by researchers affiliated with Dutch Universities and published in Springer's journals should be available in open access, subject to author's permission. Another example from the Netherlands is the *Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO)*<sup>56</sup> which leads a policy in favour of open access and notably the

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*Publishing* (Edward Elgar Publishing, 2018) (*'The Economics of Open Access'*).

<sup>54</sup> Mary M Christopher and Karen M Young, 'Awareness of "Predatory" Open-Access Journals among Prospective Veterinary and Medical Authors Attending Scientific Writing Workshops' (2015) 2 *Frontiers in Veterinary Science* <<https://www.frontiersin.org/articles/10.3389/fvets.2015.00022/full>>; Zheng Ye (Lan) Yang and Yu Li, 'University Faculty Awareness and Attitudes towards Open Access Publishing and the Institutional Repository: A Case Study' (2015) 3(1) *Journal of Librarianship and Scholarly Communication* <<http://jls-cpub.org/articles/10.7710/2162-3309.1210>> ('University Faculty Awareness and Attitudes towards Open Access Publishing and the Institutional Repository').

<sup>55</sup> Vereniging Van Universiteiten constitutes the Dutch Association of Universities which is formed by University Rectors. See further De Graaf, Beatrice, Alexander Kan Rinnooy and Henk Molenaar (eds), *The Dutch National Research Agenda in Perspective: A Reflection on Research and Science Policy in Practice* (Amsterdam University Press, 2017) <<https://library.oapen.org/bitstream/id/0ff9e002-ff9b-491a-a90b-0fb8e3c75354/624488.pdf#page=62>>

<sup>56</sup> Nederlandse Organisatie voor Wetenschappelijk Onderzoek constitutes an independent research body which funds research. It is also one of the biggest Dutch funders. See also Janger, Jürgen, Nicole Schmidt and Anna Strauss, *International differences in basic research grant funding – a systematic comparison. Studien zum deutschen Innovationssystem Nr. 9-2019* (Monograph, February 2019)

[https://www.researchgate.net/publication/331438573\\_International\\_differences\\_in\\_basic\\_research\\_gra](https://www.researchgate.net/publication/331438573_International_differences_in_basic_research_gra)

pathway of gold open access with funding schemes attached to its granting programmes. These funding schemes aim to cover article processing fees that should be paid by authors.

### ***3.4 National policy coordinated by a recommendation***

In Belgium, exists a particularly active and innovative open access movement. However, it is not so easy to establish a common and national open access policy due to federalism that characterises the country and complicates the coordination among different layers of governance and competence associated with scientific research funders, publishing stakeholders and linguistic issues. Nevertheless, the two major research funders *Fonds Wetenschappelijk Onderzoek (FWO)* in the Flemish Community and *Fonds de la Recherche Scientifique (FNRS)* in the French Community both have a green open access mandate. Accordingly, affiliated researchers with Flemish and French speaking institutions should deposit their publications in open access databases (i.e. institutional repositories).<sup>57</sup> A first step towards operationalisation of a national open access policy was made via the Brussels Declaration on the 22nd October 2012. At that time, the signatories were the Ministers of Research and Education. (i.e. Paul Magnette for the Walloon Region, Jean-Marc Nollet for the Brussels Region and Ingrid Lieten for the Flemish Region).<sup>58</sup>

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[nt\\_funding - a systematic comparison](#); and

Langfeldt, Liv and Lisa Scordato, *Efficiency and Flexibility in Research Funding. A Comparative Study of Funding Instruments and Review Criteria* (Nordic Institute for Studies in Innovation, Research and Education, 2016) <<https://nifu.brage.unit.no/nifu-xmlui/handle/11250/2394386>>

<sup>57</sup> Birgit Schmidt and Iryna Kuchma, *Implementing Open Access Mandates in Europe: OpenAIRE Study on the Development of Open Access Repository Communities in Europe* (Universitätsverlag Göttingen, 2012) (*Implementing Open Access Mandates in Europe*); de Castro et al (n 46).

<sup>58</sup> Dominique Chalono and Paul Thirion, 'ORBi : An Institutional Repository to Promote Open Access'

The signatories committed themselves to encourage open access to the publicly funded research results by informing the researchers, by recommending them to make their publications available at the latest six months (STM) and twelve months (HHS) after publication, by examining the possibilities for the public funds to pay the open access publication fees, by encouraging the creation and preservation of deposit infrastructures, by thinking about the risks and opportunities of each open access road with the stakeholders. In the French Community, the dialogue between the actors (publishers and universities) of the French has turned into a consultation that could lead to embargo periods from six to twenty-four months and even more for the publication in HSS. In the Flemish Community, the governmental institution named *departement Economie, Wetenschap en Innovatie (EWI)* concentrates on open access since October 2013, one year after the Brussels Declaration, a day of debate among different formal and informal actors in order to consider efficient ways to operationlise open access on Flemish community level. To date, there is no such community policy.

## **Discussion**

There are philosophical as well as practical justifications for which open access should be introduced as the practice to enhance the dissemination of copyrighted works. Based on this logic, it is clear that access to information resource (i.e. scientific research outcomes for the purposes of this paper argument) equips individuals with the power of knowledge. Whereas, another factor to consider in such discussion is that copyright framework should be well aligned to open access so as protection is remains stable.



The concepts of knowledge and power have a long association. Plato argues that human attitude flows from three basic sources: desire, emotion and knowledge.<sup>59</sup> The well-known proverb '*ipsa scientia potestas est*', meaning 'knowledge itself is power', was coined by Sir Francis Bacon.<sup>60</sup> It is also admitted that the concept of knowledge constitutes an important factor that helps people achieve great results.<sup>61</sup> Consequently, the more knowledge a person gains, the more powerful he/she becomes. Kofi Annan similarly argues that knowledge is power, information is liberating, and education is the premise of progress in every society and every family.<sup>62</sup> Therefore, well-educated people can be part of a well-developed society. In this respect, should follow a brief explanation of Foucault's argument about the power of knowledge.

According to Foucault, what constitutes knowledge is itself an aspect of power. That is, the disciplinary conventions play a crucial role in determining what counts as authoritative knowledge. Thus, universities and scholarly journals play an important role in establishing the benchmarks of authoritative knowledge in any discipline. Access to information is a pathway to access to knowledge and green open access is, therefore, an important mechanism of making such access widespread.

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<sup>59</sup> Ian Crombie, *An Examination of Plato's Doctrines Vol 2 (RLE: Plato): Volume 2 Plato on Knowledge and Reality* (Routledge, 2012).

<sup>60</sup> Francis Bacon, *Francis Bacon: The Major Works* (Oxford University Press, 1st edition, 2008); Francis Bacon, *Complete Works of Francis Bacon* (Minerva Classics, 2013).

<sup>61</sup> Jeremy Black, *The Power of Knowledge: How Information and Technology Made the Modern World* (Yale University Press, 2015).

<sup>62</sup> Nelly P Stromquist, *Education in a Globalized World: The Connectivity of Economic Power, Technology, and Knowledge* (Rowman & Littlefield Publishers, 2002).

Secondly, since not all information can be considered reliable, green open access can function as source of reliable information and knowledge.

Foucault further argues that knowledge is a form of power.<sup>63</sup> In particular, he states that '[K]nowledge linked to power, not only assumes the authority of the truth, but has the power to make itself true. All knowledge, once applied in the real world, has effects, and in that sense, at least, becomes true'.<sup>64</sup> More importantly, he emphasises that knowledge is not pre-existing but is a result of discourse. He states that: '[t]here is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time, power relations'.<sup>65</sup>

According to Foucault, the concepts of knowledge and power are inevitably associated. If it were accepted that in contemporary societies knowledge dissemination primarily happens through the digital media, it follows that access to knowledge must be a significant means of accessing and exercising power. Therefore, access to information resources leads to access to knowledge and such access can happen through green open access. Not only do green open access improves the process of knowledge, it also gives individuals the opportunity to exercise such power.

The pragmatic argument for greater access to information and knowledge is related to the difficulties of enforcing copyright protections in the changed

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<sup>63</sup> JE Rowley and Richard J Hartley, *Organizing Knowledge: An Introduction to Managing Access to Information* (Ashgate Publishing, Ltd., 2008).

<sup>64</sup> Hall, Stuart, 'Foucault: Power, Knowledge and Discourse' (2001) 1(72) *Discourse theory and practice: A reader* 81.

<sup>65</sup> Michel Foucault, *Discipline & Punish: The Birth of the Prison* (Vintage Books, 2nd edition, 1995), 27.

circumstance of digital publications. The problems in enforcing conventional conceptions of copyright are threefold. The first issue concerns the ambit of intellectual property law, namely that intellectual property is intangible and what constitutes an infringement of related rights is invariably a matter of interpretation. The second issue concerns managing information resources because of the great speed of information transmission and exchange of copyrighted works in the digital age. The last issue is interrelated with the concept of digital publishing and relevant concerns with copying.

The first issue is that what constitutes copyright itself is difficult to ascertain. The framework of US copyright law is relevant to this issue and helps to illustrate the difficulties in the enforcement of intellectual property rights. Whether any practice infringes the copyright of the creator is always subject to legal interpretation, which can authoritatively come only from the courts. As a result, the complexity of the law and the associated expenses for artists - or creative content creators - concerning the enforcement of the rights that copyright laws grant them operate as real impediments.<sup>66</sup> For example, the official purpose of US copyright law is claimed to be to motivate artistic production and to afford the full ability to copy, reproduce and gain value from creative work for the general public good.<sup>67</sup> However, in effect, it is very difficult for the authors to know whether their rights have been infringed and how to enforce their entitlements under the law. This difficulty is in turn exacerbated by the modern ways to distribute copyrighted works.

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<sup>66</sup> Jane C Ginsburg, 'The U.S. Experience with Mandatory Copyright Formalities: A Love/Hate Relationship' (2009) 33 *Columbia Journal of Law and the Arts* 311.

<sup>67</sup> Jane C Ginsburg, 'The Right to Claim Authorship in U.S. Copyright and Trademarks Law', (2004) 41 *Houston Law Review* 263.

The second issue for discussion is related to the digital ways and speed of distribution of content. Liu argues that copyrighted works are increasingly disseminated in digital form through the internet. Consequently, the copyright owner's right to limit copying is under challenge with the ease of copying made possible by the digital revolution.<sup>68</sup> Nevertheless, Liu goes on to argue that copyright law should acknowledge the unrestricted right to access digital copies in one's possession and a more restricted right to transfer such copies to others. For example, it is hard to determine what makes a great song or great sound. Scholars argue that several record creators and authors believe they are not breaching another's rights if they use a small part of a copyrighted work.<sup>69</sup> Thus, copying practices are not significantly aligned with the copyright regime framework and its provisions, globally. These statements illustrate that the ease of replication does not mean that it is always 'lawful' to disseminate copyrighted works. There are different perspectives regarding how much copying should be permissible. The issue is compounded by the lack of uniform legal regulation across various jurisdictions. Yet, it is increasingly being suggested that copyright laws ought to be relaxed.<sup>70</sup>

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<sup>68</sup> Joseph P Liu, 'Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership' (2000) 42 *William and Mary Law Review* 1245.

<sup>69</sup> Jeffrey R Houle, 'Digital Audio Sampling, Copyright Law and the American Music Industry: Piracy or Just a Bad Rap' (1991) 37 *Loyola Law Review* 879.

<sup>70</sup> Maria A Pallante, 'The Next Great Copyright Act' (2013) 36(3) *Columbia Journal of Law & the Arts* 315; Eleonora Rosati, *Originality in EU Copyright: Full Harmonization through Case Law* (Edward Elgar Publishing, 2013) ('*Originality in EU Copyright*'); Marketa Trimble, 'The Multiplicity of Copyright Laws on the Internet' (2014) 25(2) *Fordham Intellectual Property, Media & Entertainment Law Journal* 339; Joseph P Fishman, 'Creating around Copyright' (2015) 128(5) *Harvard Law Review* 1333.

There is an example from Germany which illustrates obstacles to enforce copyright laws. A study on behalf of the German Federal Association of the Music Producing Industry highlights that the number of illegal music downloads has been increased in 2011 by 35% when compared with 2010.<sup>71</sup> At the same time, a new philosophy regarding the pros and cons of contemporary German copyright laws has arisen, and suggestions have been made that the copyright laws should be relaxed.<sup>72</sup>

A report of the Australian Law Reform Commission (ALRC) regarding recommendations to relax copyright laws demonstrates another example which is relevant here.<sup>73</sup> In this report, the ALRC recommends that Australian copyright laws should be relaxed and modernised to allow more people to use copyright material without acquiring permission from the rights holders. The Commission was asked by the Federal Government to consider whether present copyright exceptions were

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<sup>71</sup> Chenguo Zhang, “‘Sampling’ Is Freedom of Art: The German Federal Constitutional Court Deliberates on the Acceptability of Music Sampling in the ‘Metall Auf Metall’ Case’ (2017) 33(6) *Computer Law & Security Review* 870 (‘‘Sampling’’ Is Freedom of Art’); Bastian Lange and Hans-Joachim Bürkner, ‘Value Creation in Scene-Based Music Production: The Case of Electronic Club Music in Germany’ (2013) 89(2) *Economic Geography* 149 (‘Value Creation in Scene-Based Music Production’); Jan Peter Herbst and Tim Albrecht, ‘The Work Realities of Professional Studio Musicians in the German Popular Music Recording Industry: Careers, Practices and Economic Situations’ (2018) 8(2) *IASPM Journal* 18 (‘The Work Realities of Professional Studio Musicians in the German Popular Music Recording Industry’); Koutras, *Building Equitable Access to Knowledge Through Open Access Repositories* (n 28).

<sup>72</sup> Reto Hilty and Sylvie Nérisson (eds), *Balancing Copyright - A Survey of National Approaches* (Springer, 2012 edition, 2012).

<sup>73</sup> Australian Law Reform Commission, ‘Copyright and the Digital Economy’ (Copyright and the Digital Economy 122, 13 February 2014) 468 <<http://www.alrc.gov.au/publications/copyright-report-122>>

adequate and appropriate in the digital era. The Australian report contains 30 recommendations to relax copyright laws, but it does not recommend allowing piracy of copyrighted material. Another relevant example in this context stems from the Dutch legislature's efforts to relax its copyright laws. Its approach is to provide additional protection for fair use of copyrighted material.<sup>74</sup> Current fair use exceptions in the European Union are strictly defined and not subject to interpretation by the courts (as they are in the US).<sup>75</sup> Hence, the Dutch stance on relaxed copyright protections shows the increasing reticence of individual governments to go along with restrictive copyright legislation like the *Anti-Counterfeiting Trade Agreement* (ACTA) treaty. So far, Germany, Poland, the Czech Republic and Slovakia have stopped their ACTA ratification process. It is expected that the Netherlands will not abide by the European Commission to reach a compromise on the treaty. It seems that the Netherlands will proceed with its own legislation.<sup>76</sup> These examples help me to suggest that if copyright laws' overarching objective is to better serve the public good, they should be as flexible and fluid as possible. A possible option in this regard is that legal regulation of exchange and transfer of digital information should be clearly regulated.

China demonstrates another difficulty in the enforcement of copyright. It is the sheer scale of piracy that characterises the business structure in China. Shujen et al argue that businesses, especially those engaged with manufacturing and information

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<sup>74</sup> Bernt Hugenholtz and Martin Senftleben, 'Fair Use in Europe: In Search of Flexibilities' (2012) <<https://papers.ssrn.com>>.

<sup>75</sup> Dan Burk and Julie Cohen, 'Fair Use Infrastructure for Copyright Management Systems' (2007) <<https://papers.ssrn.com>>.

<sup>76</sup> Robert Chesal, *Loosen Up Copyright Law, Says Dutch Government* (2012) <<https://www.rnw.org>>.

distribution, are sensitive to piracy.<sup>77</sup> The previous business model focused on payments for the use of copyright material via reproduction and distribution is becoming something akin to the Maginot line,<sup>78</sup> which was bypassed by the dawn of the internet. The immediate problem is that the people and organisations that have spent hundreds of years to establish a business model in the industry with the reliance on copyright -that is, copyright pays for the reproduction of its content -now do not have any protection.<sup>79</sup> Copyright laws were initially designed to compensate the creator of content for the time and effort they had spent in developing their ideas and products by giving them protection against unauthorised reproduction of their works. However, with the arrival of digital technology and the internet, it is now relatively easy to reproduce and communicate ideas and content. Consequently, the ways of protecting creative works through copyright laws have become inadequate in the digital age.

The key protection in the current copyright law of China, similar to most other countries, is focused on the right of reproduction and the right of distribution.<sup>80</sup>

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<sup>77</sup> Shujen Wang and Jonathan JH Zhu, 'Mapping Film Piracy in China' (2003) 20(4) *Theory, Culture & Society* 97.

<sup>78</sup> The Maginot Line, named after the French Minister of War, André Maginot, was a line of concrete fortifications, obstacles and weapon installations that France constructed on the French side of its borders with Switzerland, Germany and Luxembourg during the 1930s. See also Judith M Hughes, *To the Maginot Line* (Harvard University Press, 2006).

<sup>79</sup> Leonhard Dobusch and Elke Schübler, 'Copyright Reform and Business Model Innovation: Regulatory Propaganda at German Music Industry Conferences' (2014) 83 *Technological Forecasting and Social Change* 24.

<sup>80</sup> You Younting, 'What Are the Difficulties in the Online Copyright Enforcement in China?'

<<http://www.chinaiplawyer.com>>.

Technology growth makes reproduction simpler, so that anyone could reproduce and distribute what they have on the internet.<sup>81</sup> When almost everyone breaches the current copyright law, the question is whether the law is of any use. Further, serious online copyright infringement in China also puts some large companies like Microsoft into a difficult position.<sup>82</sup> Thatcher argues that although China's growth as a burgeoning market economy is ensconced within a socialist political system, it encounters a dilemma in becoming a fully-fledged actor in the copyright field. During the last decades, China has made important steps regarding the construction of a system to administer and enforce copyright.<sup>83</sup> However, such implementation has left much to be desired and shows to some extent a cultural tolerance for applications opposed to nourishing a wide respect for copyright. Therefore, in contemporary times, the copyright holder may have legal interests, but it is becoming more and more difficult to enforce them.

The digital revolution has made access to scientific research outcomes (and knowledge) very easy, but at the same time the creator of content has some interest in protecting their investment of time and effort through copyright protection. The balancing of these considerations of easy access and need to ensure conditions that encourage creativity requires a response. Therefore, European institutions, formal

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<sup>81</sup> Andrew Leyshon et al, 'On the Reproduction of the Musical Economy after the Internet' (2005) 27(2) *Media, Culture & Society* 177.

<sup>82</sup> Xiaobai Shen, 'A Dilemma for Developing Countries in Intellectual Property Strategy? Lessons from a Case Study of Software Piracy and Microsoft in China' (2005) 32(3) *Science and Public Policy* 187; Mollie E Nolan, 'Search for Original Expression: Fan Fiction and the Fair Use Defense' (2005) 30 *Southern Illinois University Law Journal* 533.

<sup>83</sup> Sanford G Thatcher, 'China's Copyright Dilemma' (2008) 21(4) *Learned Publishing* 278.



and non-formal actors involved in drafting of copyright laws should reconsider the existent business model of open access publishing.

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<sup>2</sup> European Research Advisory Board, *Scientific Publication: Policy on Open Access* (No Final Report, 2006) 14.

<sup>3</sup> Isabella Alexander, *Copyright Law and the Public Interest in the Nineteenth Century* (Bloomsbury Publishing, 2010); Benedict Atkinson, *Copyright Law: Volume III: Copyright in the 21st Century* (Routledge, 2017) ('*Copyright Law*').

<sup>4</sup> Giuliana Battisti et al, 'Open Innovation in Services: Knowledge Sources, Intellectual Property Rights and Internationalization' (2015) 24(3) *Economics of Innovation and New Technology* 223 ('Open Innovation in Services').

<sup>5</sup> Lionel Bently and Brad Sherman, *Intellectual Property Law* (Oxford University Press, 2014).

<sup>6</sup> Guibault and Margoni (n 1).

<sup>7</sup> The Open Society Institute is part of the foundation network founded by philanthropist George Soros and it is committed to provide assistance and financial support to achieve this goal. Its intention is to use its resources and influence to extend and support institutional self-archiving, to launch new open-

access journals, and to help an open-access journal system become economically self-sustaining. See also Diane Stone, 'Private Philanthropy or Policy Transfer? The Transnational Norms of the Open Society Institute' (2010) 38(2) *Policy & Politics* 269 ('Private Philanthropy or Policy Transfer?').

<sup>8</sup> These institutions are Open Society Institute, Electronic Society for Social Scientists, Scholarly Publishing and Academic Resources Coalition (SPARC), Next Page Foundation and Public Library of Science (PLOS) participated in this initiative and show such importance.

<sup>9</sup> 'Budapest Open Access Initiative (2002)' (2012) 3(2) *JLIS.it*

<<http://search.proquest.com.simsrad.net.ocs.mq.edu.au/docview/1270759591/abstract/B3755CA54FC A463APQ/1>>.

<sup>10</sup> Zhiyong Lu, 'PubMed and beyond: A Survey of Web Tools for Searching Biomedical Literature' (2011) 2011 *Database*

<<https://academic.oup.com/database/article/doi/10.1093/database/baq036/460587/PubMed-and-beyond-a-survey-of-web-tools-for>> ('PubMed and Beyond').

<sup>11</sup> The Howard Hughes Medical Institute, Health Equity Division of the Rockefeller Foundation, European Molecular Biology Organization, Lawrence Berkeley National Lab of the University of California Berkeley, New England Biolabs, McKusick-Nathans Institute of Genetic Medicine at John Hopkins University, Stanford University, Berkman Centre for Internet & Society of Harvard University, the American Society for Cell Biology, Claude Moore Health Sciences Library of the University of Virginia and University of Montreal.

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