PLEASE IDENTIFY YOURSELF:

Name: David Hansen, Kathryn Hashimoto, Gwen Hinze, Pamela Samuelson, Jason Schultz, and Jennifer Urban – researchers with the UC Berkeley Digital Library Copyright Project.[1]

TYPE OF RESPONDENT (Please underline the appropriate):

- ☐ **End user/consumer** (e.g. internet user, reader, subscriber to music or audiovisual service, researcher, student**) OR Representative of end users/consumers**

  → for the purposes of this questionnaire normally referred to in questions as **"end users/consumers"**

- ☐ **Institutional user** (e.g. school, university, research centre, library, archive) **OR Representative of institutional users**

  → for the purposes of this questionnaire normally referred to in questions as **"institutional users"**

- ☐ **Author/Performer OR Representative of authors/performers**

- ☐ **Publisher/Producer/Broadcaster OR Representative of publishers/producers/broadcasters**

  → the two above categories are, for the purposes of this questionnaire, normally referred to in questions as **"right holders"**

- ☐ **Intermediary/Distributor/Other service provider** (e.g. online music or audiovisual service, games platform, social media, search engine, ICT industry) **OR Representative of intermediaries/distributors/other service providers**

  → for the purposes of this questionnaire normally referred to in questions as **"service providers"**

- ☐ **Collective Management Organisation**

- ☐ **Public authority**

- ☐ **Member State**

- ☐ **Other** (Please explain):

Rather than writing as researchers who are end-users of materials, we are responding as researchers who are studying the copyright system itself.

We are researchers with the University of California Berkeley Digital Library Copyright Project, a grant-funded initiative that aims to investigate copyright obstacles faced by libraries and other like-minded organizations in their efforts to realize the full potential of present and future digital library initiatives. Our efforts are concentrated on both the obstacles themselves and the range of possible legal, technological, social, and market-based solutions to overcome them. Among other

[1] For more information about this project, please see http://www.law.berkeley.edu/librarycopyright.htm.

issues, we are specifically examining challenges with respect to orphan works, library privileges, digital lending, metadata ownership, and copyright formalities. Our work has primarily focused on approaches for the United States, but because of the international nature of these challenges, our research has also carefully considered the legal situation in the EU and in various Member States.

Our responses below are limited to those issues on which we have conducted significant research over the course of this project. We are aware of the differences in the copyright legal doctrines and statutory regimes in the U.S. and the EU, which are also amply documented in the Study on the Application of Directive 2001/29/EC on Copyright and Related Rights in the Information Society prepared for the Commission.[2] We recognize that we live in a globally networked information society and that information and digital copyrighted works are now accessed across national borders every day. We also recognize that sound policy development requires considering the strengths and weaknesses of the full range of potential policy solutions. In light of this, and to facilitate the Commission's understanding of how key consultation issues are being addressed in the U.S., we have focused on providing information about how the policy debate within the U.S. has treated these matters.

Our main contribution to this consultation is the set of research papers cited in our answers (and attached to this document). We hope the Commission will consider our research as the Commission develops a balanced response that takes into account the important needs of libraries, archives, and other memory institutions both within the EU and internationally.

13. *[In particular if you are an end user/consumer:]* ***Have you faced restrictions when trying to resell digital files that you have purchased (e.g. mp3 file, e-book)?***

☐ **YES** – Please explain by giving examples

Our research has shown that end users and institutional users such as libraries and archives face significant challenges when trying to resell, transfer, or lend digital files of copyrighted works. In many circumstances, users are uncertain about whether principles of exhaustion—or other general principles of copyright law—even apply to their resale or transfer of their digital copy. End user license agreements (EULAs) often include contract terms that conflict with default copyright principles such as exhaustion, causing uncertainty as to which rules apply. The Commission should rectify this situation by making clear that contract terms cannot override copyright limitations and exceptions. Among many others, Professor Ian Hargreaves has, in his independent review of UK intellectual property law, argued for this type of change for reasons similar to those discussed above.[3]

In addition to uncertainty with respect to resale of works covered by EULAs, we have also found that users confront restrictions when the distribution of digital works is accompanied by the exercise of other rights such as reproduction. While exhaustion clearly covers distribution, users

[2] Jean-Paul Triaille, Severine Dusollier, Sari Depreeuw, Jean-Benoit Hubin, Francois Coppens and Amelie de Francquen, De Wolf & Partners, STUDY ON APPLICATION OF DIRECTIVE 2001/29/EC ON COPYRIGHT AND RELATED RIGHTS IN THE INFORMATION SOCIETY, (DEC. 2013), at http://ec.europa.eu/internal_market/copyright/docs/studies/131216_study_en.pdf

[3] IAN HARGREAVES, DIGITAL OPPORTUNITY: A REVIEW OF INTELLECTUAL PROPERTY AND GROWTH 51 (2011), HTTP://WWW.IPO.GOV.UK/IPREVIEW-FINALREPORT.PDF.

are uncertain about whether the principle of exhaustion covers the incidental reproductions that occur when moving digital objects from one device to another. *Oracle v. UsedSoft* develops a broader conception of the exhaustion right that allows for some digital transfers, but the exhaustion right as applied in that case was emphasized to be *lex specialis*. With that limitation in mind, we understand that at least one court has concluded that the same rule should not apply to e-books, and that that case is currently on appeal.[4] The Commission should clarify the law in this area to make clear that the *UsedSoft* principle of exhaustion should apply more broadly to other types of copyrighted works, including e-books.

Jason Schultz and Aaron Perzanowski, in their article *Digital Exhaustion*, 58 UCLA L. Rev. 889 (2011) (attached as an Appendix), have addressed in great detail the policy and legal rationale under U.S. law for why a broad conception of the exhaustion right should be applied to digital transfers. We urge the Commission to review that article, and in particular, Part I which highlights the documented benefits of exhaustion and how those benefits apply in the digital environment.

☐ NO

☐ NO OPINION

14. *[In particular if you are a right holder or a service provider:]* ***What would be the consequences of providing a legal framework enabling the resale of previously purchased digital content? Please specify per market (type of content) concerned.***

Our research indicates that providing a legal framework for resale of digital content would, in practical terms, also require understanding and supporting the specialized technology that would be needed to support those markets. While other models exist, we encourage the Commission to investigate the digital resale system developed by ReDigi, LLC, an American firm that runs an online market place for the resale of used mp3s, and that is in the process of developing an online marketplace for the sale of used software, ebooks, and audiobooks. The ReDigi system addresses the "forward and delete" question through software that participating sellers must install to ensure no copy of the work remains on the seller's device after a sale. See https://www.redigi.com/site/. Although we believe the ReDigi system has merit, other models could also accomplish this goal. Further, please note that the ReDigi system specifically is currently being tested in court in Capitol Records v. Redigi, Case No. 12-0095 (S.D.N.Y. 2012).

15. Would the creation of a registration system at EU level help in the identification and licensing of works and other subject matter?

☐ **YES**

☐ NO

☐ NO OPINION

[4] *See* LG Bielefeld, Decision of March 5, 2013, docket no.4 O 191/11, http://www.boersenverein.de/sixcms/media.php/976/LG_Bielefeld_vom_05.03.13_Klage_Verbraucherzentralen.pdf

16. What would be the possible advantages of such a system?

Copyright formalities, and registration in particular, is an issue that we have researched extensively. Based on both our own work and that of many others, we believe that the implementation of copyright formalities, including registration, may be one of the most important strategies for reconciling copyright law and the challenges of the digital age. Never before have creative works been made available to the public on such a large scale. This has presented new challenges for copyright law and a need to create more legal certainty regarding claims of copyright, to facilitate rights clearances and to enhance the free flow of information. Registration can help meet these challenges. A properly formulated registry could provide legal certainty about ownership, which is especially important with works whose rights are divided and owned by many third parties. A registration system that sufficiently tracks ownership could also facilitate rights clearance by giving potential users a clear and trusted source to consult in locating owners.

The functions and benefits of registration and other copyright formalities have been well documented. Stef van Gompel, researcher with the Universiteit von Amsterdam Instituut voor Informatierecht (IViR), has produced an in-depth review of the history and possible future of copyright formalities: FORMALITIES IN COPYRIGHT LAW: AN ANALYSIS OF THEIR HISTORY, RATIONALES AND POSSIBLE FUTURE (KLUWER LAW INTERNATIONAL 2011).

While registration has many benefits, the design and implementation of such a system deserves further study. In April 2013 we, through the UC Berkeley Center for Law and Technology, sponsored a major academic symposium—with several speakers from the EU, US, and elsewhere—titled "Reform(aliz)ing Copyright for the Internet Age" Conference speakers addressed, among other things, the economic impacts of formalities regimes, their implementation under the Berne Convention, and the various models for implementing for such a system. We encourage the Commission to draw upon this research as it studies what a registration system might look like in the EU.

The conference materials are available online here: http://www.law.berkeley.edu/formalities.htm, and related research articles will be published in Spring 2014 by the Berkeley Technology Law Journal, available here: http://btlj.org/.

17. What would be the possible disadvantages of such a system?

In the past registration and other copyright formalities have been criticised as a "trap for the unwary", leading creators to lose or substantially impair their enjoyment of rights because the creator failed to comply with a technicality. Registration has also, at times, been considered onerous and costly. While no registration system will ever be entirely costless, our study of the issue has brought to light several technological solutions, such as integrated metadata, electronic registration—a simple web form, for example, and more flexible rules about how to effectively register a work, that can help overcome these disadvantages. In short, it is possible to get many of the benefits that formalities promise for a more efficient and focused copyright law, without the problems that led us to do away with them in the first place. Several of the presenters at the UC Berkeley Conference on formalities discussed examples of new technology that makes registration more effective and efficient. Those presentations are available at http://www.law.berkeley.edu/formalities.htm.

18. What incentives for registration by rightholders could be envisaged?

Through our work in the study of copyright formalities we have identified several promising ways to incentivize registration. Incentives for registration could, for example, include enhanced procedural benefits for holders. These might include simplified court procedures or presumptions of proof concerning ownership.

In addition, registration incentives could be combined with other reforms, such as a shortening of copyright terms for all works except for those works that are registered. Maria Pallante, U.S. Register of Copyrights, has entertained just such an approach, suggesting that terms longer than the Berne minimum 50 years could be conditioned on registration.[5] Tying registration to the relief available to a plaintiff in the event of a dispute—for example, making monetary damages only available for registered works—may also be a viable option. These and other possibilities, as well as their feasibility under Berne, were discussed in detail at the UC Berkeley copyright formalities conference mentioned above.

19. What should be the role of the EU in promoting the adoption of identifiers in the content sector, and in promoting the development and interoperability of rights ownership and permissions databases?

With respect to the situation in the United States, we have suggested that the U.S. Copyright Office take a leading role in encouraging the development of technological tools and registries that would facilitate better access to copyright-relevant information. In particular, our study of the issue has led us to recommend that the U.S. Copyright Office take a leading role in ensuring the accuracy and trustworthiness of private registries while also ensuring that those registries do not become subject to exclusive private commercial exploitation. One way to achieve these ends is for the Copyright Office to certify registries that comply with best practices, using its position to help convene roundtable meetings with stakeholders to help facilitate the development of those standards and best practices. While recognizing the different legal and regulatory framework, the EU should consider designating some official body to take on a similar role.

In whatever way the EU decides to promote the development of these important tools, it should take care that it only encourages high-quality private databases and registries that adhere to certain overarching principles. These include:

-Content: Registries should include information about the copyright status and current licensing arrangements that cover their works.

-Searchable: Registries should be fully searchable, including by metadata describing the creator and subjects of photographs and visual art works.

-Publicly accessible: Registries should be publicly accessible and searchable by all for low or no cost.

[5] Maria A. Pallante, *The Curious Case of Copyright Formalities*, 28 BERKELEY TECH. L.J. (forthcoming 2014), http://www.law.berkeley.edu/files/Pallante-BerkeleyKeynote.pdf.

-Linked: Registries should be federated with other rights management databases and metadata sources, with the goal of creating a single search interface for searching, along the lines of the UK Copyright Hub.

-Extensible and Interoperable: Registries should be extensible and interoperable, permitting rightsholders and users to provide updated information subject to an appropriate verification process, and enabling other entities to build new database interfaces and search applications that interoperate freely with the data in the registries.

-Comprehensively sourced: federated system of registries should provide access to data held by both public entities and by private sector parties.

For a more complete explanation of these principles and how they fit into the overall copyright scheme, please see David Hansen, Kathryn Hashimoto, Gwen Hinze, Pamela Samuelson, and Jennifer Urban, *Solving the Orphan Works Problem for the United States*, 34 Columbia J. L. & Arts (2013), http://ssrn.com/abstract=2323945 (attached in the Appendix).

20. Are the current terms of copyright protection still appropriate in the digital environment?

□ YES – Please explain

…….

…….

□ NO – Please explain if they should be longer or shorter

The range of issues that we have studied—from orphan works and mass digitization to copyright formalities to exhaustion—has clearly illustrated the problems of long copyright terms. This is especially true for those issues that affect libraries, archives, and other memory institutions. The orphan works problem, for example, is exacerbated by long copyright terms because the authors of copyrighted works are more difficult to find as time passes. Mass digitization is hampered because many of the collections that are candidates for digitization—for example, those from the early- and mid-twentieth century—are still protected by copyright. The Berne minimum term exceeds, in most cases, the term of realistic economic viability for many copyrighted works. This means that the public is deprived of meaningful access to important cultural works that are no longer being exploited by their owners. Furthermore, the effect of long copyright terms is amplified in the digital environment because copyright status is so frequently implicated by modern uses. In the past a reader could take a book off the library shelf, regardless of copyright status, and read it with almost no legal implications. Now that users expect digital access, borrowing an e-book from an online library raises a whole host of issues, making copyright status paramount.

For a more complete account of how term extension harms libraries, archives, and the public who use those institutions, please see Sections I and II of David Hansen, Kathryn Hashimoto, Gwen Hinze, Pamela Samuelson, Jennifer Urban, *Solving the Orphan Works Problem for the United States*, 34 Columbia J. L. & Arts (2013), http://ssrn.com/abstract=2323945 (attached in the Appendix).

□ NO OPINION

21. Should any new limitations and exceptions be added to or removed from the existing catalogue? Please explain by referring to specific cases.

Fair use is one of the most important and frequently relied upon exceptions in U.S. copyright law. In our own research we have seen that content creators, users, and intermediaries such as libraries and archives all rely heavily on this flexible doctrine to bring new creative works and services to the public. We strongly encourage the Commission to consider the addition of a fair-use like exception to the current list.

Unlike specific limitations and exceptions that provide bright-line rules about a narrow set of uses, fair use is a judicially-developed doctrine that looks to several factors to balance the needs of content owners and users in the context of a given use. Traditionally, U.S. courts examine four fair use factors:

1) the purposes and character of the proposed use

2) the nature of the work used,

3) the amount and substantially of the use,

4) the effect of the proposed use on the market for the original.

The doctrine is codified in the U.S. Copyright Act, which gives several examples of non-infringing fair uses for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research.

Because the fair use factors can be applied regardless of the specific technology, it gives a degree of adaptability that is not possible with specific limitations or exceptions. It also allows the law to foster innovation without needing to anticipate it. This flexibility has been important for the development of significant new technology services in the United States. For over a decade major technology firms such as Google and Microsoft have relied on fair use to make temporary index copies of webpages, which are needed to operate their search engines. Google Image Search, Turnitin.com's plagiarism-detection software, and the HathiTrust digital library's text- and data-mining systems used by social scientists are just some recent examples of new technologies that would be difficult to anticipate with a specific limitation or exception but which are thought to be covered by fair use.

Given this flexibility, fair use is sometimes criticized as leading to inconsistent results. Recent efforts to understand the doctrine through comprehensive review of its application in the courts has challenged this assertion. For example, in *Unbundling Fair Uses*, 77 Fordham L. Rev. 2537 (2009) (attached in the Appendix), Pamela Samuelson surveyed the landscape of U.S. fair use case law. Grouping the decisions into "policy-relevant clusters," she concluded that "once one recognizes that fair use cases tend to fall into common patterns," the "fair use law is both more coherent and more predictable than many commentators have perceived." A number of other studies have come to similar conclusions.[6] Furthermore, recognizing that users have an incentive to develop even more predictability, entire user communities have come together to develop best

[6] *See* Barton Beebe, *An Empirical Study of United States Copyright Fair Use Opinions*, 1978- 2005, 156 U. Pa. L. Rev. 549 (2008); Michael J. Madison, *A Pattern-Oriented Approach to Fair Use*, 45 Wm. & Mary L. Rev. 1525 (2004); Matthew Sag, *Predicting Fair Use*, 73 Ohio St. L.J. 47 (2012).

practice guidelines that make the application of fair use even more consistent. *See* http://www.cmsimpact.org/fair-use/best-practices

While helpful in a wide variety of applications, fair use has played an especially important role in improving access to non-profit library and archive materials and in enabling educational uses of copyrighted works. Major U.S. research libraries have relied on fair use to support mass digitization for purposes of digital preservation and for providing access to the blind and print-disabled. The Library of Congress has relied on fair use as a partial solution to enabling access to orphan works in its collection.

While Google Books and the HathiTrust digital library, both of which are currently defending lawsuits, have made bold and controversial uses of copyright works in reliance on the fair use doctrine, many U.S. libraries large and small rely on the doctrine almost daily to provide routine service and to experiment with providing new services. The vast majority of these uses—from creating personal copies of works for library patrons, to small-scale digitization projects of unique archival collections—are uncontroversial and generate no negative response from rightsholders.

For a more complete account of how fair use serves the missions of libraries and archives, we encourage the Commission to review the document attached in the Appendix to this response, titled *How Flexibility Supports to Goals of Copyright Law: Fair Use and the U.S. Library Experience, prepared for the Library Copyright Alliance* (2013), http://infojustice.org/wp-content/uploads/2013/04/Hadzima-and-Wood-How-Flexibility-Supports-the-Goals-of-Copyright-Law.pdf.

Also attached in the Appendix is Jennifer Urban, *How Fair Use Can Help Solve the Orphan Works Problem*, 27 Berkeley Tech. L.J. 1380 (2012), which highlights one way that fair use can be used to help libraries and archives address the difficult orphan works problem without resorting to a complex regulatory scheme.

22. ***(a)*** *[In particular if you are an institutional user:]* ***Have you experienced specific problems when trying to use an exception to preserve and archive specific works or other subject matter in your collection?***

(b) *[In particular if you are a right holder:]* ***Have you experienced problems with the use by libraries, educational establishments, museum or archives of the preservation exception?***

☐ **YES** – Please explain, by Member State, sector, and the type of use in question.

Based on our experience and research with organizations both in the United States and in the EU, libraries, archives and other memory institutions cannot effectively fund, create, and provide meaningful offsite access to digitally preserved materials under current library and archive exceptions. Digital preservation and access for both published and unpublished works is one of the most significant problem areas for libraries, archives, and other memory organizations.

For a review of just some of the problems libraries and archives face when undertaking digital preservation and access projects, especially in the context of collections that likely contain orphan works, please see Jennifer Urban, David Hansen, Patricia Aufderheide, Peter Jaszi, and Meredith Jacob, REPORT ON ORPHAN WORKS CHALLENGES FOR LIBRARIES, ARCHIVES, AND OTHER MEMORY INSTITUTIONS (2013)

http://www.cmsimpact.org/sites/default/files/documents/report_on_orphan_works_challenges.pdf (also attached in the Appendix).

☐ NO OPINION

23. If there are problems, how would they best be solved?

From our research we have concluded that one of the most promising strategies for addressing digital preservation—and a whole host of other library issues—is to use a combination of specific exceptions that give libraries certainty about many of the most common uses, along with a flexible fair use exception that allows libraries and archives to offer new services. In *Solving the Orphan Works Problem for the United States*, 34 Columbia J. L. & Arts (2013), http://ssrn.com/abstract=2323945 (attached in the Appendix), we explain how fair use and specific limitations and exceptions can work together.

In addition, the Commission should also be aware that the U.S. Register of Copyrights has recently indicated a willingness to study updates to U.S. library and archive exceptions. As the DeWolf & Partners Study notes, a 2008 report, "The Section 108 Study Group Report" concluded that the current U.S. copyright law's library and archive exceptions are outdated. That study group report made a first attempt at drafting proposed revisions that would better facilitate digital preservation and other new activities such as web archiving. Within the next year we expect a new proposal from the Copyright Office that suggests similar changes.

24. (a)** [In particular if you are a library:] **Have you experienced specific problems when trying to negotiate agreements to enable the electronic lending (e-lending), including across borders, of books or other materials held in your collection?

(b)** [In particular if you are an end user/consumer:] **Have you experienced specific problems when trying to borrow books or other materials electronically (e-lending), including across borders, from institutions such as public libraries?

(c)** [In particular if you are a right holder:] **Have you negotiated agreements with libraries to enable them to lend books or other materials electronically, including across borders?

☐ **YES – Please explain with specific examples**

As we explain in response to Question 13 on exhaustion and digital resale, our research has shown that libraries and their U.S. users face problems with respect to e-book lending for two primary reasons: 1) lack of clarity and understanding about how license agreements and principles of exhaustion interact, and 2) lack of clarity about how principles of exhaustion apply to the creation of reproductions that are made incidental to the distribution of the work. On both points, we refer the Commission to Jason Schultz and Aaron Perzanowski, *Digital Exhaustion*, 58 UCLA L. Rev. 889 (2011).

25. *[In particular if you are an institutional user, engaging or wanting to engage in mass digitisation projects, a right holder, a collective management organisation:]* ***Would it be necessary in your country to enact legislation to ensure that the results of the 2011 MoU (i.e. the agreements concluded between libraries and collecting societies) have a cross-border effect so that out of commerce works can be accessed across the EU?***

☐ YES – Please explain why and how it could best be achieved

It is our understanding that most EU nations would need to enact legislation to make the 2011 MoU fully effective in their jurisdictions. This is primarily due to a need to authorize collective rights organizations to have extended authority to license on behalf of non-members. While the MoU has admirable goals, the reliance on extended collective licensing makes its application concerning, especially for making available works that are potentially orphaned. If the Commission recommends that member nations enact legislation that enables extended collective licensing, we encourage the Commission to continue to think carefully about how to help Member States to regulate those collective organizations to avoid conflicts of interest and to ensure efficient distribution of funds in accordance with the CMO Directive, as recently adopted by Parliament.[7]

We explain these concerns in more detail in David Hansen, Gwen Hinze and Jennifer Urban, What Constitutes a Diligent Search Under Present and Proposed Orphan Work Regimes? (Berkeley Digital Library Copyright Project, White Paper No. 5, 2013), http://ssrn.com/abstract=2229021 (attached in the Appendix).

26. ***(a)*** *[In particular if you are an end user/consumer or an institutional user:]* ***Have you experienced obstacles, linked to copyright, when trying to use text or data mining methods, including across borders?***

(b) *[In particular if you are a service provider:]* ***Have you experienced obstacles, linked to copyright, when providing services based on text or data mining methods, including across borders?***

(c) *[In particular if you are a right holder:]* ***Have you experienced specific problems resulting from the use of text and data mining in relation to copyright protected content, including across borders?***

☐ **YES – Please explain**

Our research has shown that the primary obstacle is the creation of databases to support text and data mining. Text and data mining are most effective when researchers are able to mine collections that are comprehensive for their field. To create such large, comprehensive collections, users must be able to engage in mass digitization of print collections and mass reproduction for existing digital objects.

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[7] *See* http://www.europarl.europa.eu/news/en/news-room/content/20140203IPR34615/html/Copyright-cross-border-licences-for-online-music-services; http://consilium.eu.int/homepage/highlights/council-adopts-directive-on-copyright-and-access-to-online-music?lang=it

For print materials, copyright poses a challenge because the owners of copies of those materials are hesitant to make digital reproductions, even when that copying is only incidental to a use that does not implicate copyright, as with many text and data mining uses. In the EU there is no existing exception that would permit such incidental copying. In the United States, members of our team have argued, on behalf of digital humanities scholars in the Google Books and HathiTrust cases, that digitization for purposes of text mining is a fair use. The briefs in both cases have been persuasive. Attached in the Appendix is the brief we submitted in the HathiTrust Case, Authors Guild, Inc. v. HathiTrust, Case No. 12-4547-cv, Brief of Digital Humanities and Law Scholars as Amici Curiae (June 4, 2013). For a more thorough explanation of the rationale for why fair use covers copying for the purpose of text and data mining, see Matthew Sag, *Orphan Works as Grist for the Data Mill*, 27 Berkeley Tech. L.J. 1503 (2013).

For existing digital objects, database creators are frustrated in their efforts by restrictive license terms. This problem is especially acute for those who seek to create digital collections of scientific and other scholarly articles that are available online only under restrictive license terms. Those articles—especially the newest, most recent research, much of which is supported by public funding—contain in them facts and ideas that directly contribute to advances in science, medicine, and other areas of research. For more about why access to scientific literature for subsequent analysis is such a problem, see Jerome H. Reichman and Ruth L. Okediji, *When Copyright Law and Science Collide: Empowering Digitally Integrated Research Methods on a Global Scale*, 96 Minn. L. Rev. 1362 (2012), http://www.minnesotalawreview.org/wp-content/uploads/2012/08/ReichmanOkediji_MLR1362.pdf.

☐ NO – Please explain

☐ NO OPINION

27. If there are problems, how would they best be solved?

To facilitate digitization for text and data mining, a specific copyright limitation that authorized copying incidental to the creation of databases for text and data mining may be desirable. A fair use provision, as discussed above, could supplement a text and data mining limitation to cover use cases not yet known.

For mining of existing digital objects, restrictive license terms and paywall access stand out as some of the most significant barriers to text and data mining. Reichman and Okediji, cited in response to Question 26, discuss this issue in detail. As mentioned above, the Commission should study whether exceptions and limitations should take precedence over contrary license terms to facilitate activities like text and data mining. In addition, because so many scientific research articles are publicly funded, the Commission should ensure that resulting published research is made available on a truly open access basis, including not only the right to read the work but to reuse and manipulate it in text and data mining systems.