

## Copyright for Knowledge: Priorities for European Union Copyright reform

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Copyright for Knowledge is a cross-sectoral body which aims to work with government at both a UK and European level to achieve a balanced copyright regime in Europe. For further information please email [copyright4knowledge@ucl.ac.uk](mailto:copyright4knowledge@ucl.ac.uk)

This paper summarises Copyright for Knowledge's main priorities for the proposed reforms to EU copyright law, and illustrates these with evidence and case studies from a range of universities and research organisations (see Annex).

The best research frequently takes place in the context of multi-national research projects.<sup>1</sup> However, the current EU copyright framework presents legal barriers to cross-border collaboration and information sharing for research and cultural purposes. These barriers need to be lowered in order to fully realise the benefits of European knowledge.

As research organisations and funders, and significant creators of intellectual property ourselves, we welcome the European Commission's recent Communication<sup>2</sup> signalling its intent to update EU copyright law, including legislative proposals to support text and data mining. We hope the forthcoming detailed proposals for reform will take account of the points below to ensure Europe's future competitiveness.

### Key points:

#### EU copyright law should be reformed to:

- **Enable text and data mining** via the introduction of an EU-wide copyright exception for all purposes, whether commercial or non-commercial.
- **Support the preservation of works** by libraries and other cultural heritage institutions via a harmonised exception to allow copying of works for this purpose, as part of a preservation network.
- **Support EU-wide 'collective management' solutions** (where organisations act on behalf of content creators to license uses of their works) to facilitate the digitisation and sharing of Europe's cultural and scientific heritage.

#### To achieve these goals, the following reforms are also vital:

- Copyright law must be made more flexible and responsive to technological developments (such as new data analysis tools).
- Copyright exceptions should be applied equally in all Member States and must not be overridden by private contracts.
- Copyright durations must be harmonised across all Member States.

### EU copyright law should be reformed to:

#### 1. Enable text and data mining for commercial and non-commercial purposes via the introduction of an EU-wide copyright exception

Text and data mining (TDM) is a critical tool in modern research that has the potential to improve health and save lives by generating new insights from existing content. It also has the potential to increase the efficiency of research by speeding up the analysis of 'big data'<sup>3</sup>; and accelerating the application of research. The use of TDM techniques to analyse big data is already producing tangible benefits, such as new insights into the development of Alzheimer's disease (see case study 1). However, the wider uptake of TDM is being impeded by a lack of certainty over its legal status.

<sup>1</sup> Collaborative research is associated with higher field weighted citation impact. 47.6% of all UK articles in 2012 resulted from international collaboration. BIS, 'International Comparative Performance of the UK Research Base – 2013'. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf)

<sup>2</sup> [http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc\\_id=12526](http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=12526)

<sup>3</sup> 'Big data' technology and services are expected to grow worldwide at an annual growth rate of 40% – about 7 times that of the ICT market overall. See <http://ec.europa.eu/digital-agenda/en/news/worldwide-big-data-technology-and-services-2012-2015-forecast>.

We welcome the Commission's intention to consider legislative proposals to allow text and data mining, as it is our view that a mandatory Europe-wide copyright exception must be created for TDM. However, we note that the Commission's proposal is currently limited to "public interest research organisations" only. We consider that the exception should apply to all uses – both commercial and non-commercial – where users already have lawful access to the material they are mining. Limiting a TDM exception to non-commercial research risks hindering the commercial application of research findings, and does not reflect the collaborative approach typical of modern research<sup>4</sup>, which is actively promoted by the EU and national governments. Researchers generally cannot know in advance whether a piece of research which utilises data mining will result in conclusions that support a commercially viable product or innovation, and so to make a distinction between commercial and non-commercial research risks inhibiting innovation.

*Case studies 1 and 2 illustrate the benefits of text and data mining: (1) by generating new biological insights into Alzheimer's disease; and (2) by improving the efficiency and cost-effectiveness of research by speeding up the selection of papers for studies that review existing findings.*

## **2. Support the preservation of works by libraries and other cultural heritage institutions via a harmonised exception to allow copying of works for this purpose.**

Libraries and other cultural heritage organisations must be able to preserve materials in order to maintain and expand the EU's cultural heritage. Due to the costs and technological challenges involved in digital preservation, some institutions require national or regional co-operative networks in order to implement effective preservation programmes. Preservation involves copying and transferring from one format to another and many Member States have exceptions for preservation. However, it is currently unclear whether preservation by other institutions within a network is permissible or not under current EU law. We welcome the European Commission's commitment to "provide a clear space for preservation by cultural heritage institutions". However, to support effective EU-wide preservation, copyright law must make it clear that the making and sharing between institutions of copies of a work for preservation purposes does not constitute breach of copyright, by way of a mandatory exception that applies across borders.

## **3. Support EU-wide 'collective management' solutions to facilitate the digitisation and sharing of Europe's cultural and scientific heritage**

Technology allows works that are still in copyright but no longer commercially available ('out of commerce') to be digitised in bulk ('mass digitisation'). This potentially allows online public access to large numbers of works that would otherwise be lost from use. The technical possibilities now need to be matched by better legal mechanisms. We recommend that European copyright reform should support EU-wide 'collective management' solutions (where organisations act on behalf of content creators to license uses of their works, in cases where the numbers of creators involved makes negotiating with individual rights holders impractical) for the digitisation of out of commerce works. This will facilitate the large-scale digitisation of works for activities including research, and make Europe's cultural and scientific heritage more visible to the European citizen. We also believe that solutions for works that have never been made commercially available ('never in commerce') are needed, as collecting societies will not be representative of rightsholders who did not create works for commercial purposes for example, letters, diaries, oral histories, and other ephemera.

We also encourage the Commission to further consider how to address the major issue of 'orphan works' (works for which the copyright holder cannot be found or identified), which currently inhibits the re-use of important cultural material. It is our view that the 2012 Orphan Works Directive has not sufficiently addressed this issue, and that further solutions are needed at EU level.

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<sup>4</sup> In the UK alone, universities' income from collaborative research (which can be commercial or non-commercial) and contract commercial research have both been growing year on year for the last decade to £1.6 billion overall in 2013/14. In the same year, the amount generated by UK universities through knowledge exchange activities was over £3.9 billion (figures from the Higher Education – Business and Community Interaction survey for UK higher education institutions, 2013-14, <http://www.hefce.ac.uk/pubs/year/2015/201513/>).

***To achieve these goals, the following reforms are also vital:***

### **1. Copyright law must be made more flexible and responsive to technological developments**

Cutting-edge research increasingly relies on employing innovative computer technologies. However, the current Information Society Directive is now fifteen years old, and it is highly likely that the pace of technological change will continue faster than the legislative framework can adapt. In its Communication the European Commission makes clear the necessity, where required, to “adapt copyright rules to new technological realities so that the rules continue to meet their objectives.”

One means of achieving this would be the introduction of a general open-ended copyright exception that allows the law to respond quickly to take account of new uses of copyright works resulting from new technological developments (also known as an ‘open norm’). This would be in addition to specific exceptions such as to allow text and data mining (see above). Technology-focused countries like Singapore, Israel, South Korea and Taiwan have already introduced such an open-ended copyright framework.

### **2. Copyright exceptions should be applied equally in all EU Member States and should not be overridden by private contract**

To achieve harmonisation and cross-border accessibility, research, education and library copyright exceptions should be made mandatory, so that they apply equally in all Member States and function across borders. Libraries have supplied private articles, book chapters and other such materials to researchers and universities cross-border for decades, and cross-border collaborative research is now routine – and so copyright law must reflect this.

The current copyright framework also allows exceptions in law for education and research purposes to be made null and void by private contract. Since a large proportion of material bought by libraries is now electronic, it is impractical for libraries to negotiate each and every individual contract to ensure that the terms will not override exceptions that they would want to make use of.

The copyright laws of UK, Ireland, Belgium and Portugal do not allow exceptions to be undermined by private contract, and the same protection must be enshrined in European copyright law.

*‘Case study 3: JISC Collections’ experience of working with UK copyright exceptions’ illustrates how the need to negotiate uses permitted under UK law with other European jurisdictions is creating unnecessary legal and administrative burdens.*

### **3. Copyright durations must be harmonised across all Member States**

In its Communication, the Commission has identified the need for greater harmonisation as a general objective. In particular, the lack of effective harmonisation of the duration of copyright across the EU makes it more difficult to share material, because the complex and varying lengths of copyright terms between Member States makes it difficult to determine whether a particular work is still in copyright, and whether cross-border access is legal or not. This hampers many organisations wishing to offer online services, ranging from Europeana<sup>5</sup> to online historical publishers.

We believe that, as part of the current review of EU copyright law, the European Commission should review terms of copyright with a view to achieving greater harmonisation, and evaluate the impact of long terms of copyright on innovation.

*‘Case study 4: Additional permissions work caused by lack of harmonisation’ demonstrates how variations in copyright terms across the EU present unnecessary barriers to researchers seeking to access and reuse works sourced from different European jurisdictions.*

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<sup>5</sup> [Europeana.eu](http://Europeana.eu) provides online access to millions of books, paintings, films and other resources that have been digitised throughout the EU.

## **Annex: Detailed case studies**

### **Case study 1: Use of text and data mining in the discovery of novel biomarkers for Alzheimer's disease**

A recent paper published in the Journal of Translational Medicine<sup>6</sup> by a Europe-wide research team demonstrated the use of text mining techniques to generate insights that could inform future discoveries and new treatments for Alzheimer's disease. The research group analysed a large body of research data and literature to identify potential new insights in to the biological basis of Alzheimer's disease, and followed this up with further analysis in the laboratory. This process identified 25 candidates for biological 'clues' which were shown to be of clinical interest, and represents an example of the use of data mining and computer analysis to sift 'big data' to identify relevant insights.

This approach is also being used to produce new insights into other disorders, and inform the development of new treatments. However, greater legal certainty is required in cases where the material being mined has been lawfully obtained but is protected by copyright. This will be particularly important for researchers working collaboratively across Europe, including with commercial companies, as will often be the case. A Europe-wide mandatory exception for text and data mining would provide this assurance and enable greater uptake of such approaches. Furthermore, an exception for both commercial and non-commercial purposes would support the employment of text mining by researchers working in or with commercial companies, which will produce the treatments deriving from new discoveries.

### **Case study 2: Use of text and data mining to streamline systematic reviews**

Analyses of research findings through systematic review (studies which examine previously published papers) are considered the 'gold standard' for evidence-based medicine, representing the best of our current knowledge about how effective treatments and interventions really are. However, the manual process for sorting through the research literature and selecting papers for inclusion in such reviews is time-consuming and labour intensive.

For example, the Cochrane Collaboration<sup>7</sup> collects clinical trials and reviews them for possible inclusion in systematic reviews. This process uses criteria which are judged by the data published in the paper, much of which is numeric – such as how many participants took part in the study, and what endpoints or outcomes were reported.

TDM can be used to improve the process of selection for systematic review by significantly lowering the number of papers needing to be read by humans, and identifying sections that require further investigation. This frees up researchers to spend their time on analysis and interpretation of the data and other tasks that require more 'human' skills. This will lead to the best evidence being identified and published sooner, leading to faster development of new treatments and better outcomes for patients.

<sup>6</sup> <http://www.translational-medicine.com/content/10/1/217>

<sup>7</sup> Cochrane is a global independent network of researchers, professionals and others interested in health that gathers and summarises evidence from research to inform approaches to treatment – <http://www.cochrane.org/>

### **Case study 3: Jisc Collections' experience of working with UK copyright exceptions**

Jisc (formerly the Joint Information Systems Committee) is the UK higher education sector's not-for-profit organisation for digital services and solutions. Jisc negotiates licenses on behalf of the UK university sector. The copyright exceptions recently introduced in UK law, including the exception to permit text and data mining, cannot be overridden by contracts, meaning that the uses of copyrighted material permitted by the regulations can be incorporated into Jisc licences, an extremely valuable feature for institutions who want to carry out these activities. However, Jisc is still compelled to negotiate the uses permitted under the UK exceptions with overseas rights holders who are unaware of the changed UK law, and who find the varying copyright laws of Europe confusing. A harmonised exception for text and data mining across Europe would help to address this administrative burden, as well as enabling the potential of these activities to be fully realised across Europe.

### **Case study 4: Additional permissions work caused by lack of harmonisation**

Universities and libraries currently need to take account of the different durations of copyright for works when making them available for reuse, which takes time and effort – this could be alleviated if copyright durations were fully harmonised.

For example, although copyright restrictions across Europe generally now last for the life of the author plus seventy years, the copyright in the works of authors who died before December 7, 1987, has a different duration in Spain: life plus 80 years. Other examples include Ireland, which has copyright in perpetuity for unpublished works; and the UK where unpublished works made before 1 August 1989 remain in copyright until 2040 irrespective of their age. Photographs also have a wide range of durations in Europe with some countries applying 20 years and others applying life plus 70 to the same photograph.

These examples illustrate the obstacles presented by lack of harmonisation of copyright terms, which in turn hampers efforts to develop and expand EU-wide online products and services such as Europeana<sup>8</sup>.

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<sup>8</sup> [Europeana.eu](http://Europeana.eu) provides online access to millions of books, paintings, films and other resources that have been digitised throughout the EU.