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**AUTOMATED PROCESSING OF COPYRIGHTED WORKS IN THE
EUROPEAN UNION – A WAY FORWARD?**

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INTRODUCTION

“We’re not scanning all those books to be read by people. We’re scanning them to be read by Artificial Intelligence.”¹

Copyrighted works are no longer only used by humans. IBM’s supercomputer Watson having “read” all medical literature assists doctors in diagnosing and treating patients with the hope of reducing the number of incorrect diagnoses and medical errors.² Computers of this level of intelligence can more effectively take on many of the tasks that are currently performed by humans.³ Tools and services that are based on computers working through large quantities of data (including books and other expressive works) promise to be very valuable to the society. Medical diagnosis and treatment, scientific research in gene-technology and chemistry, informed decision making in finance and machine translation are only a few examples of potential uses. In addition to being useful to the society these new technologies are also promoters of innovation and economic growth.

The shift towards computers making use of copyrighted works is a relatively new one and somewhat unexpected; certainly in the context of copyright law and database protection. Presently, it is not entirely clear whether the notion of computers making use of copyrighted works⁴ complies with European Union (EU) legislation. In general, when works are processed by computers copies of works are produced. However, one of the underlying principles of copyright law is that the right of reproduction belongs to the author and production of copies of works without the permission of the right holder is not allowed. On the other hand production of copies in the course of automated processing of copyrighted works is for the purpose of extracting information – an activity that normally does not amount to an infringement of copyright law.⁵ Information Society Directive (hereinafter the InfoSoc Directive) that harmonises on EU level copyright and related right provides a list of copyright

¹ G. Dyson. Turing’s Cathedral. 23.10.2005. Available at: <http://www.edge.org/conversation/turing-39s-cathedral> (16.04.2014).

² IBM website for Watson Solutions. Available at: <http://www.ibm.com/smarterplanet/us/en/ibmwatson/work.html> (16.04.2014).

³ J. Manyika, M. Chui, J. Bughin, R. Dobbs, P. Bisson, A. Marrs. Disruptive Technologies: Advances that Will Transform Life, Business and the Global Economy. McKinsey Global Institute May 2013, p 40. Available at: file:///C:/Downloads/MGI_Disruptive_technologies_Full_report_May2013.pdf (16.06.2014).

⁴ This paper deals with the use of copyrighted works and follows the general rule that works are protected by copyright. Terms “works” and “copyrighted works” are used interchangeably to refer to works protected by copyright unless otherwise stated.

⁵ M. Borghi, S. Karapapa. Copyright and Mass Digitization. Oxford: Oxford University Press 2013, p 51.

exceptions and limitations that curtail the rights of right holders. It is not entirely clear whether automated processing of works falls under any of the copyright limitations enumerated in the InfoSoc Directive. In addition, often works suitable for processing are stored in databases that are in turn protected by copyright or the *sui generis* right that impedes access to works for the purpose of automated processing.

Legal uncertainties concerning the automated processing of copyrighted works can reduce willingness to develop tools and services that are based on automated processing of copyrighted works as it may violate copyright law and those that do take the risk may opt to do it in secret.⁶ The legitimacy of computers using expressive works may in the end determine in which part of the world these technologies are developed and who gets share of the profit,⁷ which can affect the competitiveness of EU.

European Commission (EU Commission) has recently recognised the importance of issues related to automated processing of works but has so far treated this set of problems to a limited extent only. In December 2012, the EU Commission launched under the heading of “Making European Union Copyright Fit for the Digital Age” a stakeholder dialogue with the aim of exploring innovative technical and licensing solutions to one type of automated processing of works – text and data mining.⁸ The stakeholder dialogue, however, revealed that due to colliding interests of stakeholders it is very difficult (if not impossible) to reach a consensus. At the same time EU has not completely discarded the possibility of making relevant legislative changes – in December 2013 the EU Commission also initiated the public review of EU copyright rules.⁹ Presently all roads before EU are open.

This paper studies the current legal situation with regard to automated processing of works in the EU. Proposals for potential legislative changes are analysed taking into account the obligations that EU has under international law. For this purpose author poses the following research questions:

1. Is automated processing of copyrighted works in compliance with European Union legislation?
2. Are European Commission’s actions to date concerning the automated processing of works sufficient for meeting the goals set before European Union copyright law?

⁶ D. McDonald, U. Kelly. The Value and Benefit of Text Mining to UK Further and Higher Education. JISC 2012, p 51. Available at: <http://www.jisc.ac.uk/reports/value-and-benefits-of-text-mining> (16.04.2014).

⁷ D. McDonald, U. Kelly. The Value and Benefit of Text Mining to UK Further and Higher Education, p 32.

⁸ European Commission. Commission agrees way forward for modernising copyright in the digital economy, MEMO/12/950. Brussels: 05.12.2012. Available at: [http://europa.eu/rapid/press-release MEMO-12-950_en.htm](http://europa.eu/rapid/press-release_MEMO-12-950_en.htm) (16.04.2014).

⁹ European Commission website on EU Single Market. Public Consultation on the Review of the EU Copyright Rules. Available at: http://ec.europa.eu/internal_market/consultations/2013/copyright-rules/index_en.htm (16.04.2014).

3. Are legislative proposals suitable for solving issues related to automated processing of works and do they at the same time comply with obligations that European Union has under international law?

First chapter of this paper explains the meaning of the term “automated processing” of copyrighted works and its importance for EU. Chapter I also explores whether automated processing of copyrighted works is presently in compliance with EU legislation. For this end the relevant provisions of the InfoSoc Directive and the Database Directive are systematically analysed in the light of Court of Justice of the European Union (CJEU) case-law and scholarly commentaries on EU intellectual property law.

Second chapter deals with the current initiatives of the EU Commission in the field of automated processing of copyrighted works. Chapter II analyses whether EU Commission’s actions to date in the field of automated processing of copyrighted works are sufficient for meeting the goals set before EU copyright law. The evolution of goals set before EU copyright law is analysed mainly based on Green Papers issued by the EU Commission. Subsequently it is explored whether European Commission’s actions to date in the field of copyright law enable achieving the set goals.

Third chapter deals mainly with international aspects of copyright law. Chapter III explores whether the United States of America (US) legal framework, which is bound by the same international obligations as EU, is more favourable towards the adoption of technologies that make use of copyrighted works. Based on international treaties and the relevant case-law an overview is provided of the international obligations that European Union is bound by. The principles of US and EU copyright law and relevant case-law are systematically analysed with the aim of determining whether there are differences in approaches towards the adoption of technologies making use of copyrighted works.

Fourth chapter of this paper analyses legislative proposals in the context of automated processing of copyrighted works. Chapter IV explores types of legislative changes that could be integrated to EU legislation in order to settle issues related to automated processing of copyrighted works. Proposals of potential legislative changes put forward by the academia are analysed in order to determine their suitability and compliance with international law. In addition, general remarks are provided with regard to possible legislative changes addressing issues associated with automated processing of works.

Automated processing of works and copyright is a fairly new subject and there is relatively little research conducted in this field. One of the first scientific articles published was “Non-display uses of copyright works: Google Books and beyond” by M. Borghi and

S.Karapapa¹⁰ published in 2011. In this article and in their more recent and in-depth study “Copyright and Mass Digitization”¹¹ M. Borghi and S. Karapapa analyse the legitimacy of mass digitization in Europe and in the United States. J. Reichman and R. Okediji argue in their article “When Copyright Law and Science Collide: Empowering Digitally Integrated Research Methods on a Global Scale” that current intellectual property laws (especially the protection of databases) hinder scientific research and propose different solutions for mitigating the negative effects.¹² In Estonia more attention has recently been turned on issues related to the development of digital language resources. A. Kelli, H. Pisuke and A. Tarvast have explored whether the development of digital language resources (databases that consist of many written and oral texts) for the purpose of development machine translation and other language tools complies with Estonian copyright regulation.¹³ In addition, L. Jents and A. Kelli have also studied the legal aspects of processing personal data in development and use of digital language resources.¹⁴

¹⁰ M. Borghi, S. Karapapa. Non-display uses of copyright works: Google books and beyond. – Queen Mary Journal of Intellectual Property April 2011 Vol 1 No 1, pp 21–52.

¹¹ M. Borghi, S. Karapapa. Copyright and Mass Digitization. Oxford: Oxford University Press 2013.

¹² J. H. Reichman, R. L. Okediji. When Copyright Law and Science Collide: Empowering Digitally Integrated Research Methods on a Global Scale. – Minnesota Law Review 2012 Vol 96 No 4, pp 1362–1480. Available at: http://scholarship.law.duke.edu/faculty_scholarship/2675/ (17.04.2014).

¹³ A. Kelli, A. Tavast, H. Pisuke. Copyright and Constitutional Aspects of Digital Language Resources: The Estonian Approach. – Juridica International 2012 Vol 19, pp 40–48.

¹⁴ L. Jents, A. Kelli. Legal Aspects of Processing Personal Data in Development and Use of Digital Language Resources: The Estonian Perspective. – Jurisprudence 2014 Vol 21 No 1, pp 164–184.

I AUTOMATED PROCESSING OF COPYRIGHTED WORKS IN EU

The term “automated processing” of copyrighted works does not presently appear in European Union legislation. “Automated processing” is a term used by scholars addressing issues related to copyright and computers making use of copyrighted works. The answer to the question whether and how automated processing of copyrighted works complies with EU legislation lies in EU copyright and database protection legislation and – to some extent – in EU competition law.

Automated processing of works presumably results in copies of works being produced. The InfoSoc Directive¹⁵ harmonises on EU level the right of reproduction. Acts of reproduction made in the course of automated processing of works are therefore likely to fall under the scope of InfoSoc Directive.

One of the advantages of automated processing of works is scalability – the ability to make use of massive amounts of data. Such volumes of works are often stored in databases that are themselves protected by copyright or the *sui generis* right. Protection of databases is on EU level harmonised in the Database Directive.¹⁶

EU Competition law has in relation to intellectual property been described as a “thermostat” – when intellectual property rights become too “hot” the competition law is used by CJEU and EU Commission to douse those rights in order to promote the public interest.¹⁷ Compulsory licensing is a competition law instrument that is examined with regard to access to works for the purpose of automated processing.

First chapter explores whether automated processing of copyrighted works is presently in compliance with EU legislation and whether interested parties have access to works stored in databases for the purpose of automated processing.

¹⁵ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the European Union. OJ L 167/10, 22.06.2001. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0029:EN:HTML> (02.05.2014).

¹⁶ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases. OJ L 77/20, 27.03.1996. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31996L0009> (02.05.2014).

¹⁷ J. Tudor. Compulsory Licensing in the European Union. – George Mason Journal of International and Commercial Law 2012 Vol 4:2, p 224. Available at: http://www.georgemasonjicl.org/wp-content/uploads/2013/05/4_Geo_Mason_J_Intl_Com_Law_186_2013.pdf (02.05.2014).

1.1 Importance of Automated Processing of Works to European Union

1.1.1 Automated Processing of Works

In 2004 Google announced the Google Print – a project with the intention of creating a digital library containing all the world's books and making them searchable to anyone with an Internet connection.¹⁸ In cooperation with prestigious libraries¹⁹ Google started scanning and indexing their collections without the prior consent of right holders. In addition to digitising the works and making them searchable Google was also interested in using digital copies of the works for non-display ends. According to Google “non-display uses of works” are uses of works that do not display expression of digital copies of works to the public. Such uses include for example display of bibliographic information, full-text indexing without display of expression, geographic indexing of books, and algorithmic listings of key terms for chapters of books as well as internal research and development using the digital copies.²⁰ In broad terms a “non-display use” is any use of the work that does not involve making the expression of the work public.

This paper is limited to issues that spring from the non-display uses of copyrighted works. Presently there exists no uniform use of terminology for describing issues related to copyright and computers making use of copyrighted works that entails the production of copies of works. Various different terms have been used depending on the scope and focus of the problems addressed. EU Commission has referred to “text and data mining” as technique used for the exploration of vast amounts of existing texts and data.²¹ Others scholars have found this definition too restrictive and refer to data analysis that they define as “the automated processing of digital materials, which may include texts, data, sounds, images or other elements, or a combination of these, in order to uncover new knowledge or insights.”²²

In this paper the term “automated processing” of copyrighted works refers to the course of actions that occur during non-display use of works. The term “automated processing” should be understood as a series of actions executed by computers with minimal

¹⁸ In 2005 Google Print was renamed Google Books. Google Books history on Google Books official website. Available at: <http://books.google.com/intl/en/googlebooks/about/history.html> (26.04.2014).

¹⁹ Google's initial partners were the University of Michigan, Harvard University, Stanford University, Oxford University and the New York Public Library.

²⁰ Amended Settlement Agreement. *The Authors Guild, Inc. Association of American Publishers, Inc., et al v. Google Inc.* Case No 05 CV 8136-DC, point 1.94. Available at: <http://www.authorsguild.org/wp-content/uploads/2008/10/Amended-Settlement-Agreement.pdf> (26.04.2014).

²¹ Public Consultation on the Review of EU Copyright Rules, p 27. Available at: http://ec.europa.eu/internal_market/consultations/2013/copyright-rules/index_en.htm (27.04.2014).

²² J. P. Triaille, J. de Meeûs d'Argenteuil, A. de Francquen. Study on the Legal Framework of Text and Data Mining (TDM). March 2014, p 17.

Available at: http://ec.europa.eu/internal_market/copyright/docs/studies/1403_study2_en.pdf (27.04.2014).

human intervention on copyrighted works to uncover new knowledge or insights. The term “automated processing” is used as an umbrella term that does not refer to a certain purpose for which works are processed or certain techniques of processing.

Due to the fact that copies are produced in the course of automated processing of works, such technologies have been also termed as “copy-reliant technologies” – technologies that copy expressive works for non-expressive ends.²³

Processing of works that entails significant alterations to works and do not fall under the scope of the right of reproduction are not dealt with in this paper.

1.1.2 Importance of Legislative Framework for Automated Processing of Works

Automated processing of works is not presently *expressis verbis* regulated in EU law; however, there is a growing discussion on the need to regulate these activities²⁴ as they are increasingly used in science, medicine, finance and other domains. At the moment it is not entirely clear whether and to what extent automated processing of copyrighted works complies with EU law. Legal uncertainties, however, can create situations in which interested parties do not risk developing tools and services that are based on automated processing of copyrighted works as it may violate the law and those that do take the risk, may opt to do it in secret.²⁵ The legitimacy of computers using expressive works may in the end determine in which part of the world these technologies are developed and who gets share of the profit.²⁶

When EU is deciding whether and how to regulate automated processing of works the legal situation in other legislations should also be taken into account. Recently concerns have been raised that due to differences in copyright law US legislation is more favourable towards technologies making use of copyrighted works, thereby hampering the competitiveness of EU.²⁷ Automated processing of copyrighted works is a good example of developments in the field of technology bringing about the need to establish a legal framework. The lack of suitable regulation may in turn bring about the slow-down of development. Presently, the automated processing of copyrighted works is likely to fall under the scope of InfoSoc Directive, the Database Directive and to some extent under EU competition law.

²³ M. Sag, Copyright and Copy-Reliant Technology. – Northwestern University Law Review 2009 Vol 103 No 4, p 3. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1257086 (30.04.2014).

²⁴ M. Borghi, S. Karapapa. Copyright and Mass Digitization, p 46.

²⁵ D. McDonald, U. Kelly. The Value and Benefit of Text Mining to UK Further and Higher Education, p 51.

²⁶ D. McDonald, U. Kelly. The Value and Benefit of Text Mining to UK Further and Higher Education, p 32.

²⁷ Letter from European Technology SMEs, Open Access Publishers and the Research Sector WG4. Available at: http://www.eblida.org/News/Letter_of_withdrawal4E_TDM_May%2024.pdf (18.04.2014).

1.2 Automated Processing of Works and the InfoSoc Directive

1.2.1 Outline and Aim of the InfoSoc Directive

The InfoSoc Directive that harmonised Member States' copyright and related rights legislation was adopted in 2001. According to the recitals of the Directive a harmonised legal framework of copyright and related rights leads to growth and increased competitiveness of European industry. The rights of right holders require high level of protection as this is crucial to intellectual creation.²⁸ Articles 2–4 of the Directive define the exclusive rights provided to right holders (such as the right of reproduction, the right of communication to the public etc).

At the same time, the InfoSoc Directive also emphasises the need to safeguard a fair balance of rights and interests between different right holders and users.²⁹ Article 5 of the Directive provides an exhaustive list of exceptions and limitations³⁰ to the right of reproduction.³¹ The list consists of one mandatory limitation and twenty three optional exceptions and limitations that Member States are allowed to introduce to their respective national legislations. Member States are free to act within the boundaries set by the Directive but the adoption of “new” exceptions or limitations is not allowed. Non-mandatory exceptions and limitations listed in the Directive are different in their nature. They include, for example, exceptions for private copying, uses for the benefit of disabled persons, uses for the purpose of quotations, caricature and parody and uses for the purpose of public security. Member States have implemented the non-mandatory copyright limitations very differently – studies show that Member States only selected limitations that they considered important and in addition those limitations are interpreted according to respective Member State's traditions.³²

The InfoSoc Directive does not provide a copyright limitation dealing explicitly with the automated processing of copyrighted works. The following sections analyse the general provision of the right of reproduction as well as the copyright exceptions and limitations that are the most relevant with regard to automated processing of works.

²⁸ InfoSoc Directive, Recitals 4, 9.

²⁹ InfoSoc Directive, Recital 31.

³⁰ In this paper terms “copyright limitation” and “copyright exception” are used interchangeably.

³¹ InfoSoc Directive, Recital 32.

³² L. Guibault, G. Westkamp, T. Rieber-Mohn. Study on the Implementation and Effect in Member States' Laws of Directive 2001/29/EC on the Harmonisation of Certain Aspects of Copyright and Related Rights In the Information Society. Final Report. February 2007, p 39.

Available at: http://www.ivir.nl/publications/guibault/Infosoc_report_2007.pdf (30.04.2014).

1.2.2 The Right of Reproduction

Article 2 of the InfoSoc Directive harmonises the right of reproduction on EU level. Pursuant to Article 2 (a):

Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part: (a) for authors, of their works [...]

The wording of Article 2 is very broad which, according to Recital 21 of the Directive, was the intention of the legislator.³³ According to Article 2 the exclusive right of (any kind of) reproduction belongs to the author and in principle making reproductions of a work without the permission of the right holder is not allowed. Concerning the scope of the right of reproduction the CJEU has stated that according to recitals 9 and 11 of the InfoSoc Directive the main objective of the Directive is to introduce a high level of protection, in particular to authors to enable them to receive an appropriate reward for the use of their works³⁴ and consequently Article 2 must be given a broad interpretation.³⁵

1.2.3 Copyright Limitation for Scientific Research

Article 5(3) (a) of the InfoSoc Directive provides an optional copyright limitation for scientific research. Recently United Kingdom (UK) and Estonia have explored the potential field of application of the copyright limitation for scientific research. Both countries are considering adopting a copyright limitation of explanatory nature that enables data analytics for non-commercial scientific research purposes. In their opinion such copyright limitation would fall under the scope of copyright limitation for scientific research provided in the InfoSoc Directive. Article 5(3) (a) of the InfoSoc Directive reads:

Member States may provide for exceptions or limitations to the rights provided for in Articles 2 and 3 in the following cases: (a) use for the sole purpose of illustration for teaching or scientific research, as

³³ Recital 21 of the InfoSoc Directive reads: “This Directive should define the scope of the acts covered by the reproduction right with regard to the different beneficiaries. This should be done in conformity with the *acquis communautaire*. A broad definition of these acts is needed to ensure legal certainty within the internal market.”

³⁴ ECJ, Judgement of 16.07.2009, Case C-5/08 *Infopaq International A/S v Danske Dagblades Forening (Infopaq I)* [2009] ECR I-06569, paragraph 40.

³⁵ Case C-5/08 *Infopaq I*, paragraph 43.

long as the source, including the author's name, is indicated, unless this turns out to be impossible and to the extent justified by the non-commercial purpose to be achieved.

In UK, the Hargreaves Review³⁶ made recommendations for ensuring that the UK intellectual property system supports innovation and promotes economic growth in the digital age. Although Article 5(3) (a) does not mention *expressis verbis* the production of copies in the course of technological process the Hargreaves Review expresses the view that such acts of reproduction could fall under the scope of Article 5(3) (a). The Review suggests that the current wording of Article 5(3) allows on UK level the adoption of a more specific copyright limitation enabling text mining for non-commercial research purposes.³⁷ The UK government broadly accepted the findings of the Review³⁸ and initiated actions to implement the recommendations, including the adoption of a copyright limitation for text and data mining.

The Estonian Intellectual Property (IP) Law Codification Commission that deals with reforming Estonian intellectual property law has reached a similar position with the Hargreave's Review. The IP Law Codification Commission has proposed under the heading of non commercial research the adoption of a copyright limitation that enables "reproduction and processing of an object of rights for the purpose of text mining and data mining, on the condition that such use is not carried out for commercial purposes."³⁹ However, in her expert opinion S. von Lewinski concluded that the proposed copyright exception is not covered by Article 5 of the InfoSoc Directive and should therefore not be adopted.⁴⁰ At present stage it is difficult to predict whether the limitation proposed by the Codification Commission is going to be adopted in Estonia as the Parliamentary discussions have not yet begun.

Even if Article 5(3) (a) is interpreted so that it accommodates data analytics or text and data mining it would not entirely solve problems related to the automated processing of

³⁶ The Hargreaves Review is an independent review of UK intellectual property system by Professor Ian Hargreaves. The Review was commissioned by the UK Prime Minister David Cameron.

³⁷ I. Hargreaves. Digital Opportunity – a Review of Intellectual Property and Growth May 2011, p 48. Available at: <http://www.ipo.gov.uk/ipreview-finalreport.pdf> (02.05.2014).

³⁸ HM Government. The Government Response to the Hargreaves Review of Intellectual Property and Growth. August 2011, p 8. Available at: <http://www.ipo.gov.uk/ipresponse-full.pdf> (16.04.2014).

³⁹ The proposed copyright limitation reads: "§ 44 (1) – Free use of works for scientific, educational, informational and judicial purposes – The following is permitted for a natural or legal person, on the condition of referencing the person of the holder of rights, the name of the object of rights, and the source of publication, except if such referencing is impossible: 3) reproduction and processing of an object of rights for the purpose of text mining and data mining, on the condition that such use is not carried out for commercial purposes." Draft of the Copyright and Related Rights Act (01.02.2014) (in Estonian Autoriõiguse ja autoriõigusega kaasnevate õiguste seaduse eelnõu (01.02.2014)), § 44 (1) (3). Available at: <http://www.just.ee/orb.aw/class=file/action=preview/id=59367/Autori%F5iguse+seaduse+eeln%F5u.pdf> (16.04.2014).

⁴⁰ S. von Lewinski. Expert Opinion on the Draft of the Copyright and Related Rights Act. 26.08.2013, comment 136. Available at: <http://www.just.ee/orb.aw/class=file/action=preview/id=59027/Ekspertarvamus+autori%F5iguse+eeln%F5u+koha+%28dr++Silke+von+Lewinski%29.pdf> (16.04.2014).

works. The principal drawback lies in the scope of the copyright limitation – only automated processing of works for non-commercial research purposes would be allowed. In some instances it could be difficult to draw a line between commercial and non-commercial research.⁴¹ In addition, today's reality is that most of new technologies, tools and services are not developed on non-commercial research basis – solely adopting the copyright limitation dealing with non-commercial research purposes leaves the interests and needs of a significant number of stakeholders unaddressed.

1.2.4 Copyright Limitation for Specific Acts of Reproduction

Article 5(2) (c) of the InfoSoc Directive provides a non-mandatory copyright limitation for specific acts of reproduction. M. Borghi and S. Karapapa suggest that automated processing of copyrighted works falls under Article 5(2) (c) that reads:

Member States may provide for exceptions or limitations to the reproduction right provided for in Article 2 in the following cases: (c) in respect of specific acts of reproduction made by publicly accessible libraries, educational establishments or museums, or by archives, which are not for direct or indirect economic or commercial advantage.

M. Borghi and S. Karapapa hold the view that "while this exception would not cover acts of reproduction made by private organizations, or acts made for commercial purposes, the heading "specific acts of reproduction" does not preclude a cultural institution from carrying out copying for the purpose of automated text processing."⁴²

M. M. Walter and S. von Lewinski, however, suggest that a common example of such "specific acts of reproduction" is the making of a preservation copy of an item⁴³ and that for example scanning and indexing activities, such as those performed by Google in the frameworks of Google Books project do not fulfil conditions of Article 5(2) (c) "and thus may not be considered to be covered by this exception or limitation."⁴⁴ This suggests that in the view of M. M. Walter and S. von Lewinski Article 5(2) (c) requires a more restricted interpretation than was provided by M. Borghi and S. Karapapa.

⁴¹ J. P. Triaille, J. de Meeûs d'Argenteuil, A. de Francquen. Study on the Legal Framework of Text and Data Mining, p 67.

⁴² M. Borghi, S. Karapapa. Copyright and Mass Digitization, p 59.

⁴³ M. M. Walter, S. von Lewinski. InfoSoc Directive, p 1037. – European Copyright Law. A Commentary. Edited by M. M. Walter, S. von Lewinski. Oxford: Oxford University Press 2010.

⁴⁴ M. M. Walter, S. von Lewinski. InfoSoc Directive, p 1038.

1.2.5 Copyright Limitation for Temporary Acts of Reproduction

Article 5(1) concerns temporary acts of reproduction and is the only mandatory exception stipulated in the InfoSoc Directive. Article 5 (1) reads:

Temporary acts of reproduction referred to in Article 2, which are transient or incidental [and] an integral and essential part of a technological process and whose sole purpose is to enable: (a) a transmission in a network between third parties by an intermediary, or (b) a lawful use of a work or other subject-matter to be made, and which have no independent economic significance, shall be exempted from the reproduction right provided for in Article 2.

According to recital 33 of the InfoSoc Directive this exception is adopted to enable actions such as browsing and caching. The exception mentions “acts of reproduction that are part of technological process” and therefore appears to neatly accommodate the acts of reproduction that are part of automated processing of works. However, in order to successfully apply Article 5(1) all the cumulative conditions mentioned in Article 5(1) need to be fulfilled and according to CJEU article 5(1) must be interpreted strictly.⁴⁵ In 2009, eight years after the adoption of InfoSoc Directive, CJEU delivered *Infopaq I* – its first decision dealing with the interpretation and application of Article 5(1). In 2012 CJEU delivered the ruling *Infopaq II*⁴⁶ that further clarified the application and interpretation of Article 5(1). Subsequently it is analysed whether in the light of rulings *Infopaq I* and *Infopaq II* automated processing of works could fall under the scope of Article 5(1).

1.2.6 Automated Processing of Works in the Light of *Infopaq I* and *Infopaq II*

Infopaq was a Danish media monitoring and analysis enterprise that via e-mail sent summaries of newspaper articles to its customers. For this purpose the relevant articles were scanned and translated into machine-readable format (using optical character recognition). Once the optical character recognition process was completed the scanned file of the article was deleted. The machine readable text file was then processed to find search words defined beforehand. Five words before and after the search word were also captured in order to make it easier for the reader to find the search word when reading the article. Once the processing for search words was completed the machine-readable text file was also deleted. At the end of

⁴⁵ Case C-5/08 *Infopaq I*, paragraph 57.

⁴⁶ ECJ, Judgement of 17.01.2012, Case C-302/10 *Infopaq International A/S v Danske Dagblades Forening*. [*Infopaq II*].

the process a cover sheet containing information on the article and an extract of 11 words were printed out (e.g.: “4 November 2005 – Dagbladet Arbejderen, page 3: TDC: 73% “a forthcoming sale of the telecommunications group TDC which is expected to be bought.”). Danske Dagblades Forening (DDF), a professional association of Danish newspapers, held the opinion that such reproductions required the authorisation of relevant right holders and complained to Infopaq about the procedure.⁴⁷ Infopaq initiated proceedings against DDF claiming that DDF should be ordered to acknowledge that Infopaq is in Denmark entitled to apply the abovementioned procedure without the consent of DDF. The Danish regional court referred a set of questions concerning the interpretation of Articles 2 and 5 of the InfoSoc Directive to the CJEU for a preliminary ruling. CJEU dealt with the application and interpretation of Article 5(1) and in the end ruled against Infopaq. The Court expressed the view that as Infopaq was making reproductions outside the sphere of computer technology and printed extracts of 11 words on paper medium this act was not in compliance with requirement of Article 5(1).⁴⁸ After the delivery of *Infopaq I* the Danish regional court was still unable to decide the case and referred another set of preliminary questions to the Court – in 2012 CJEU delivered *Infopaq II* that further dealt with the application of Article 5(1).

CJEU found that the actions of Infopaq constituted acts of reproduction – “an act occurring during a data capture process, which consists of storing an extract of a protected work comprising 11 words and printing out that extract, is such as to come within the concept of reproduction in part.”⁴⁹ The Court went on to say that a reproduction can be exempted from the right of reproduction if it cumulatively fulfils the following conditions:

1. It is temporary;
2. It is transient or incidental;
3. It is an integral and essential part of technological process;
4. The sole purpose of that process is to of enable a transmission in a network between third parties by an intermediary or a lawful use a work or protected subject-matter;
5. It has no independent economic significance.⁵⁰

1–2. Temporary and transient acts of reproduction: The Court held the opinion that a temporary and transient act of reproduction is intended to enable the completion of a technological process of which it forms and integral and essential part and acts of

⁴⁷ Case C-5/08 *Infopaq I*, paragraphs 13–21.

⁴⁸ Case C-5/08 *Infopaq I*, paragraphs 67–70.

⁴⁹ Case C-5/08 *Infopaq I*, paragraph 51.

⁵⁰ Case C-5/08 *Infopaq I*, paragraphs 54, 55.

reproduction must not exceed what is necessary for the proper completion of that technological process.⁵¹ Acts of reproduction made outside the medium of computer technology are not considered transient acts of reproduction.⁵² The Court emphasised that in order to constitute a “temporary and transient act of reproduction” the storage and deletion of the reproductions should not depend on discretionary human intervention⁵³ but should be done automatically.⁵⁴ From the Court’s reasoning it can be derived that making of reproductions of works constitutes a “temporary and transient act of reproduction” as long as reproductions of works do not leave the medium of computer technology and are automatically deleted at the end of the processing cycle. The Court has not specified the period during which the copies of the work can be stored. S. von Lewinski suggests that this period may last from minutes to months depending on the nature of the process.⁵⁵ There exists no agreed time-limit that needs to be followed.

3. Integral and essential part of technological process: The Court held the opinion that “[...] the technological process in question consists of carrying out electronic and automatic research in newspaper articles and identifying and extracting predefined key words from those articles, in order to render the drafting of summaries of newspaper articles more efficient”⁵⁶, and concluded that “[...] the technological process in question could not function correctly and efficiently without the acts of reproduction concerned [...] such electronic research thus requires a transformation of those articles, from a paper-based medium, into digital data, since that transformation is necessary in order to recognise that data, to identify the key words and to extract those key words.”⁵⁷ Automated processing of copyrighted works is therefore considered “integral and essential part of technological process” as long as the interested parties can demonstrate that their automated processing methods could not function properly without the reproductions of works being made.

4. The sole purpose of the use is to enable a transmission in a network between third parties by an intermediary or a lawful use a work: First of all the Court concluded that the acts of reproduction in *Infopaq* were not concerned with transmission in a network between third parties.⁵⁸ Subsequently the Court went on to analyse whether the sole purpose of the acts of reproduction was to “enable the lawful use of works”. CJEU, making reference to recital 33 of the InfoSoc Directive, declared that “[...] a use should be considered lawful

⁵¹ Case C-5/08 *Infopaq I*, paragraph 61.

⁵² Case C-5/08 *Infopaq I*, paragraphs 67, 70.

⁵³ Case C-5/08 *Infopaq I*, paragraph 62.

⁵⁴ Case C-5/08 *Infopaq I*, paragraph 65.

⁵⁵ M. M. Walter, S. von Lewinski. InfoSoc Directive, p 1025.

⁵⁶ Case C-302/10 *Infopaq II*, paragraph 33.

⁵⁷ Case C-302/10 *Infopaq II*, paragraph 37.

⁵⁸ Case C-302/10 *Infopaq II*, paragraph 41.

where it is authorised by the right holder or where it is not restricted [by] applicable legislation.”⁵⁹ Technological processes concerned in *Infopaq* were “[...] intended to enable a more efficient drafting of summaries of newspaper articles and, therefore, a use of those articles.”⁶⁰ Although the drafting of newspaper article summaries was not in the present case authorised by the right holders, the Court nevertheless found that the use was not unlawful as the activity under question was not restricted by EU legislation.⁶¹ According to Court’s reasoning acts of reproduction do not require the permission of the right holder as long as the uses for which the works are used are not restricted by law. Most of the uses related to automated processing deal with extraction of useful information from works or using works to “teach computers”. Such actions are not restricted by EU legislation and do not therefore require the permission of right holders.

5. Independent economic significance of the acts of reproduction: The Court came to the conclusion that the reproductions do not have independent economic significance when “[...] the implementation of those acts does not enable the generation of an additional profit, going beyond that derived from lawful use of the protected work and, secondly, that the acts of temporary reproduction do not lead to a modification of that work.”⁶² The party interested in automated processing of works has to demonstrate that the production of copies of works does not generate additional income and that the works is not modified. This does not mean that no income can be generated altogether but rather that no income can be generated directly due to copying of works.

In *Infopaq I* and *Infopaq II* the Court has developed the five conditions that need to be fulfilled for an act of reproduction to fall under the scope of Article 5(1). It can be concluded that as long as the interested parties design their automated processing cycle according to the guidelines developed by the Court they have sufficient ground for arguing that their actions comply with Article 5(1). The most problematic appears to be the requirement of temporary and transient reproduction. J. P. Triaille, J. de Meeûs d’Argenteuil and A. de Francquen have in their study on the legal framework of text and data mining pointed out that within the automated processing cycle there are stages where the deletion of copies of works depends entirely on human intervention.⁶³ This, however, appears to be a question of technical design. If the computer is programmed to automatically delete copies of works at the end of the processing cycle and the activation of “deletion” does not require human intervention then the

⁵⁹ Case C-302/10 *Infopaq II*, paragraph 42.

⁶⁰ Case C-302/10 *Infopaq II*, paragraph 43.

⁶¹ Case C-302/10 *Infopaq II*, paragraphs 44, 45.

⁶² Case C-302/10 *Infopaq II*, paragraph 54.

⁶³ J. P. Triaille, J. de Meeûs d’Argenteuil, A. de Francquen. Study on the Legal Framework of Text and Data Mining, p 48.

copies of works are indeed temporary copies. In relation to the third and fourth condition developed by the Court the interested parties must be able to demonstrate that the production of copies is the integral part of the processing cycle and that the end-purpose of automated processing is not restricted by law. With regard to the fifth condition – no independent economic significance – copies of works are not to be made public and that no revenue should be generated by making the expression of the work public or accessible to the public.

It should, however, be also pointed out that certain research projects may require processing of permanent copies of works. For example, creation of language resources involves creating a database of samples of written and spoken language use that are used for developing language-technology systems.⁶⁴ Copies of works are not deleted at the end of the processing cycle but become part of the contents of a database.

It can be concluded that automated processing of works might fall under the scope of Article 5(1) provided that the guidelines developed by CJEU in rulings *Infopaq I* and *Infopaq II* are followed. This, however, can at the end deliver odd results. Projects that may have entirely legitimate ends but do not succeed in fulfilling the five conditions developed by the Court or require processing of permanent copies fall outside the scope of Article 5(1). It could hardly be argued that rulings *Infopaq I* and *Infopaq II* provide sufficient legal certainty for the fast-developing technology domain.

1.3 Automated Processing of Works and the EU Database Directive

1.3.1 Outline and Aim of the Directive

In practice issues related to the automated processing of works in EU are often more complex than described in the previous sections. Works suitable or worth of processing (e.g. scientific journals) are frequently stored in databases that according to the Database Directive are in turn protected by copyright or the *sui generis* right.

The EU Database Directive was adopted in 1996 with the aim of offering protection to a wide variety of different databases. In addition to copyright protection the Database Directive introduced the *sui generis* protection of databases. The goal of adopting the Directive was to increase investments made in the European database sector.⁶⁵

⁶⁴ A. Kelli, A. Tavast, H. Pisuke. Copyright and Constitutional Aspects of Digital Language Resources: The Estonian Approach. – *Juridica International* 2012 Vol 19, p 43.

⁶⁵ Database Directive, recitals 10–12.

The distinction between the copyright and the *sui generis* protection of databases is not clear-cut. According to some scholars the structure (the selection or arrangement of contents) of the database is protected by copyright (Article 3) and the contents of the database are protected by the *sui generis* right (Article 7).⁶⁶ Others, however, suggest that this approach is overly simplistic and argue that there is a considerable overlap between copyright in the structure of the database and the *sui generis* right, extent of which depends on the interpretation of the Database Directive.⁶⁷ In EU Commission's view databases that constitute author's own intellectual creation by reason of selection or arrangement of the contents of a database are protected by copyright. Databases that do not meet these criteria are protected by the *sui generis* right, provided that there has been qualitatively or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents of a database.⁶⁸ This paper is based on the standpoint of the EU Commission.

In comparison to databases protected by copyright the threshold for protection is lower for databases protected by the *sui generis* right, resulting in a larger portion of databases being protected by the *sui generis* right. Accordingly this paper concentrates mainly on the *sui generis* protection of databases.

1.3.2 *Sui Generis* Protection of Databases

Article 7 of the Database Directive states:

1. *Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.*
2. *For the purposes of this Chapter: (a) "extraction" shall mean the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form; (b) [...]*
5. *The repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents of the database implying acts which conflict with a normal exploitation of that database or which unreasonably prejudice the legitimate interests of the maker of the database shall not be permitted.*

⁶⁶ F. W. Grosheide. Database Protection – The European Way. – Washington University Journal of Law & Policy 2002 Vol 8, p 57.

⁶⁷ M. J. Davidson. The Legal Protection of Databases. Cambridge: Cambridge University Press 2003, p 81.

⁶⁸ European Commission. DG Internal Market and Services Working Paper First Evaluation of Directive 96/9/EC on the legal protection of databases. Brussels: 12.12.2005, pp 3–4. Available at: http://ec.europa.eu/internal_market/copyright/docs/databases/evaluation_report_en.pdf (26.04.2014).

According to Article 7 extraction of “substantial parts of the contents of a database” is not permitted, which aims to protect the investment made by the database maker.⁶⁹ CJEU has applied and interpreted Article 7 and finds that a lawful user may be prevented, under the *sui generis* right, from carrying out acts of extraction of the whole or a substantial part of the database.⁷⁰ With regard to the “substantial part” of the contents of the database, the CJEU has indicated that the volume of data extracted⁷¹ as well as the human, technical and financial effort put in by the maker of the database in obtaining, verifying and presenting data need to be taken into consideration.⁷² This principle proves to be problematic in the context of automated processing of works. Often the development of technologies or conducting research that makes use automated processing of works requires processing of works in bulk – for example, one cannot develop high-quality machine translation tools by using one or two journal articles.

CJEU has also underlined that in an assessment of the scope of the *sui generis* right it is not relevant to ask for the purpose of extraction.⁷³ Accordingly, it is also irrelevant whether the act of extraction is for a commercial or a non-commercial purpose.⁷⁴ Users interested in automated processing of works cannot therefore rely on the purpose of extraction for justifying their actions – it makes no difference whether the extracted contents of a database are used for introduction of a competing product or for some other purpose.

In order to balance the rights of database makers and users, the rights of database makers have been curtailed in Articles 8 and 9 of the Database Directive. The Database Directive permits extraction of “insubstantial parts” of the contents of a database (Article 8(1)). This means that when having lawful access to a database a few journal articles can be downloaded, but downloading a bigger portion (e.g. all the articles containing the word “gene”) requires the permission of a database maker. In addition, in cases enumerated in Article 9⁷⁵ Member States are allowed to introduce limitations to the *sui generis* right

⁶⁹ Recital 40 of the Database Directive reads: “Whereas the object of this *sui generis* right is to ensure protection of any investment in obtaining, verifying or presenting the contents of a database for the limited duration of the right, whereas such investment may consist in the deployment of financial resources and/or the expending of time, effort and energy.”

⁷⁰ ECJ, Judgement of 09.11.2004, Case C-203/02 *The British Horseracing Board Ltd and Others v William Hill Organization Ltd*. [2004] ECR I-10415, paragraph 58.

⁷¹ C-203/02 *The British Horseracing Board*, paragraph 70.

⁷² C-203/02 *The British Horseracing Board*, paragraph 76.

⁷³ C-203/02 *The British Horseracing Board*, paragraph 47.

⁷⁴ C-203/02 *The British Horseracing Board*, paragraph 48.

⁷⁵ Article 9 of the Database Directive reads: “Exceptions to the *sui generis* right. Member States may stipulate that lawful users of a database which is made available to the public in whatever manner may, without the authorization of its maker, extract or re-utilize a substantial part of its contents: (a) in the case of extraction for private purposes of the contents of a non-electronic database; (b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the

enabling lawful users of databases to extract substantial parts of the database. For example, Member States are allowed to introduce exceptions to *the sui generis* right that enable the extraction of substantial part of the contents of a database without the permission of the database maker for the purposes of illustration for teaching or scientific research for non-commercial research purposes (Article 9(b)). However, the influence of Article 9 is greatly reduced by Article 15 of the Directive. According to Article 15 only contractual provisions that require the lawful user to seek permission to access and extract insubstantial parts of the database are “null and void.”⁷⁶ Article 15 makes no mention of Article 9 – exceptions to the *sui generis* right. Database makers can therefore deny by contract lawful users the right to extract substantial parts the contents of a database, even if a user was willing to pay for licence.⁷⁷

1.4 Automated Processing of Works and EU Competition Law

EU Competition law is relevant in the context of automated processing of works with regard to issues related to access to works. In the previous section it was pointed out that the Database Directive does not oblige database makers to provide access to the contents of a database for the purpose of automated processing. It is subsequently analysed whether EU competition law instruments can be relied upon in order to have access to works.

1.4.1 Compulsory Licensing

EU (and national) competition rules can be applied to the exploitation of intellectual property (including copyright) where this exploitation restricts competition in a way or to an extent that is not justified.⁷⁸ The competition law instrument that could have relevance with regard to automated processing of copyrighted works is compulsory licensing. A compulsory license is a remedy that allows access to the protected technology despite the wishes of the intellectual property holder (for example the database maker).⁷⁹ Compulsory licenses have

non-commercial purpose to be achieved; (c) in the case of extraction and/or re-utilization for the purposes of public security or an administrative or judicial procedure.”

⁷⁶ Article 15 of the Database Directive reads: “Binding nature of certain provisions. Any contractual provision contrary to Articles 6 (1) and 8 shall be null and void.”

⁷⁷ J. Edwards. Has the Dreaded Data Doomsday Arrived: Past, Present and Future Effects of the European Union’s Database Directive on Database and Information Availability in the European Union. – Georgia Law Review 2004 Vol 39 No 1, p 231.

⁷⁸ J. D.C. Turner. Intellectual Property and EU Competition Law. Oxford: Oxford University Press 2010, p 3.

⁷⁹ J. Tudor. Compulsory Licensing in the European Union, p 222.

been granted on the ground of Article 102 Treaty on the Functioning of the European Union (TFEU)⁸⁰ (ex Article 82 TEC) that reads:

Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States. Such abuse may, in particular, consist in:

- (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;*
- (b) limiting production, markets or technical development to the prejudice of consumers;*
- (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;*
- (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.*

According to Regulation 1/2003 national competition authorities and the Commission have the power to investigate and decide cases related to Article 82 [102].⁸¹ Investigation can lead to the imposition of remedies (such as a compulsory license) and to penalties.⁸² The decisions of national authorities or the Commission can be challenged before national courts or the CJEU respectively. In order to establish an infringement of Article 102, it must be demonstrated that the undertaking under scrutiny is dominant in a given market, that it has abused its dominant position, that the abuse has effect on trade between Member States and the absence of any justification for the abuse.⁸³

In the context of automated processing of works stored in databases the precondition of application of Article 102 is the dominant position of the database maker denying access to the contents of database. EU Commission has indicated that the following factors are taken into consideration to assess whether an entity holds a dominant position: 1) the market position of the dominant undertaking and its competitors; 2) expansion and entry of actual and potential competitors; 3) bargaining strength of the undertaking's customers.⁸⁴

⁸⁰ Treaty on the Functioning of the European Union. OJ C 326/49. 26.10.2012. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2012:326:FULL&from=EN> (03.05.2014).

⁸¹ See for example Article 4 (Powers of The Commission) and Article 5 (Powers of the Competition Authorities of Member States). Council Regulation (EC) 1/2003 of 16 December 2002 on the implementation on rules on competition laid down in articles 81 and 82 of the Treaty. OJ L 1/1 04.01.2003.

⁸² A. E. L. Brown. Intellectual Property, Competition and the Internet, p 422. – Law and the Internet. 3rd Edition. Edited by L. Edwards, C. Waelde. Oxford, Portland, Oregon: Hart Publishing 2009.

⁸³ D. Chalmers, G. Davies, G. Monti. European Union Law. 2nd Edition. Cambridge: Cambridge University Press 2011, p 997.

⁸⁴ The Commission has stated that the following factors in particular are taken into consideration when assessing the dominant position: 1) constraints imposed by the existing supplies from, and the position on the market of, actual competitors (the market position of the dominant undertaking and its competitors); 2) constraints imposed

There exists a wide array of different databases. The determination of a dominant position is entirely dependent on the facts of the case thereby rendering it impossible to make any generalizations on database makers holding a dominant position. However, it is clear that not all database makers are in a dominant position which limits the scope of application of Article 102 in the context of automated processing of works. With regard to the precondition related to the effect on trade between member states – it is not necessary to show that the trade has been affected but this requirement is satisfied when the abuse is capable of affecting trade between member states.⁸⁵

1.4.2 Refusal to Supply

The first case imposing a compulsory license under Article 102 was the *Magill* decision of 1988. The case concerned listings of television programmes that were protected by copyright in the UK. Magill was an undertaking established to produce a weekly magazine containing information on forthcoming television programmes. However, the relevant television companies refused to license Magill the necessary information. CJEU held the opinion that television channels were the only source of basic information such as the channel, day, time and the title of programmes and by refusing to license this information television channels were in a position to prevent effective competition on the market in weekly television magazines. In *Magill*, CJEU developed the test of “exceptional circumstances” according to which a refusal to license could constitute an abuse of dominant position when 1) there is no actual or potential substitute to the protected work; 2) the refusal prevents the appearance of a new product for which there is a consumer demand; 3) there is no justification for the refusal; 4) the right holder reserves to themselves the secondary market by excluding all competition on that market.⁸⁶

The Court has relied on the “exceptional circumstances” test also in following cases *Oscar Bronner*, *IMS Health* and *Microsoft*. In *Oscar Bronner* a publishing undertaking, Bronner, claimed that another undertaking, Mediaprint, had abused its dominant position by not including Bronner’s paper in its home delivery service. CJEU applied the test of

by the credible threat of future expansion by actual competitors or entry by potential competitors (expansion and entry; 3) constraints imposed by the bargaining strength of the undertaking’s customers (countervailing buyer power). Communication from the Commission — Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings 2009/C 45/02. OJ C 45/7 24.02.2009, paragraph 12.

⁸⁵ J. D.C. Turner. Intellectual Property and EU Competition Law, p 103.

⁸⁶ ECJ, Judgement of 06.04.1995, Cases C-241/91 P & C-242/91 P *Radio Telefis Eireann and others v Commission and Magill TV Guide* [1995] ECR I-00743, paragraphs 52–56.

exceptional circumstances and found that access to Mediaprint's home delivery system was not indispensable to Bronner's primary business of newspaper production⁸⁷ and other methods of distributing newspapers existed for Bronner.⁸⁸ The Court therefore held that Mediaprint had not abused its dominant position.

In *IMS Health* CJEU clearly stated the three conditions that need to be fulfilled for a refusal to constitute an abuse of dominant position: 1) the undertaking which requested the licence intends to offer new products or services not offered by the owner of the intellectual property right and for which there is a potential consumer demand; 2) the refusal is not justified by objective considerations; 3) the refusal is such as to reserve the owner of the intellectual property right the market by eliminating all competition on that market.⁸⁹

The most recent is the *Microsoft* case decided by the Court of First Instance (CFI). In *Microsoft* the CFI stated that according to the previous case-law "the refusal by an undertaking holding a dominant position to license a third party to use a product covered by intellectual property right cannot in itself constitute an abuse of a dominant position within meaning of Article [102]."⁹⁰ Exercise of the exclusive right can constitute an abuse only in exceptional circumstances. The CFI stated that the following circumstances, in particular, must be considered to be exceptional: 1) the refusal relates to a product or service indispensable to the exercise of a particular activity on a neighbouring market; 2) the refusal is of a such a kind as to exclude any effective competition on that neighbouring market; 3) the refusal prevents an appearance of a new product for which there is potential consumer demand.⁹¹ The pre-*Microsoft* case-law of the CJEU suggests that the list of circumstances that must be considered is exhaustive and in *Microsoft* CFI did not definitely rule on this question.⁹² However, the use of the term "in particular" suggests that the list of circumstances to be considered is open-ended.

⁸⁷ P. Craig, G. de Búrca. *EU Law: Text, Cases and Materials*. 5th Edition. Oxford: Oxford University Press 2011, p 1032.

⁸⁸ ECJ, Judgement of 26.11.1998, Case C-7/97 *Bronner v Mediaprint* [1998] ECR I-07791, paragraph 43.

⁸⁹ ECJ, Judgement of 29.04.2004, Case C 418/01 *IMS Health v NDC Health* [2004] ECR I-00791, paragraph 52.

⁹⁰ CFI, Judgement of 17.09.2007, Case T-201/04 *Microsoft v Commission* [*Microsoft*] OJ C 269 10.11.2007, paragraph 331.

⁹¹ Case T-201/04 *Microsoft*, paragraph 332.

⁹² P. Larouche. *The European Microsoft Case at the Crossroads of Competition Policy and Innovation*. May 2008 TILEC Discussion Paper No 2008-021, p 3. Available at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1140165 (02.05.2014).

1.4.3 Excessive and Discriminatory Pricing

In addition to refusing access to the contents of a database, database makers can also deny access by excessive and/or discriminatory pricing. CJEU case law affirms that fixing of prices at unfair level may constitute an abuse of dominant position.⁹³ In its decision *United Brands*, the CJEU stated that charging a price that has no reasonable relation to the economic value of the product would be deemed as excessive and therefore constituting an abuse of the dominant position.⁹⁴ In order to determine whether the price is excessive the Court suggested a twofold test. According to the Court the excessive price could be determined by comparing the selling price and the cost of production (this would disclose the amount of the profit margin). In case the difference between the price actually incurred and the price actually charged is excessive it needs to be determined whether the price charged is unfair in itself or when compared to other products.⁹⁵ The Court, however, acknowledges that “other ways may be devised – and economic theorists have not failed to think up several – of selecting the rules for determining whether the price of a product is unfair.”⁹⁶ Even though the case-law affirms that charging an excessive price could constitute an abuse, the Court has not given clear indications on how big the profit margin needs to be in order to be considered “too big”.

It has also been suggested that the Commission does not aim to control or condemn high level prices as such but raises objections only where the behaviour of the dominant firm is designed to prevent the emergence and growth of competitors who might bring about acceptable price levels.⁹⁷ In the Guidance on the Commission’s enforcement priorities in applying article 82 of the EC Treaty [Article 102 TFEU] the Commission has indicated that “the Commission will focus on those types of conduct that are most harmful to consumers.”⁹⁸ Chalmers, Davies and Monti suggest that under the heading “interests of consumers” other Community policies such as safeguarding small and medium-sized undertakings and market integration could be advanced.⁹⁹

CJEU case-law concerning the interpretation and application of relevant sections of Article 102 shows that certain conditions need to be fulfilled for a compulsory license to be

⁹³ ECJ, Judgement of 05.10.1988, Case 238/87 *Volvo AB v Erik Veng (UK) Ltd* [1988] ECR 6211, paragraph 9.

⁹⁴ ECJ, Judgement of 14.02.1978, Case 27/76 *United Brands Co. v Commission [United Brands]* [1978] ECR 207, paragraph 250.

⁹⁵ Case 27/76 *United Brands*, paragraphs 251-252.

⁹⁶ Case 27/76 *United Brands*, paragraph 253.

⁹⁷ A. G. Toth *The Oxford Encyclopaedia of European Community Law. Volume III Competition Law and Policy*. Oxford: Oxford University Press 2008, p 10.

⁹⁸ European Commission. Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings. 2009/C 45/02, paragraph 5.

⁹⁹ D. Chalmers, G. Davies, G. Monti. *European Union Law*, p 1009.

granted. On the one hand the case-law with regard to “refusal to supply” seems promising – the “exceptional circumstances” criteria do not appear impossible to fulfil. Often technologies/tools/services that are based on making use of the contents of a database do not compete on the same market with the database maker. In some cases a database may indeed be the only source of certain information, thereby making the contents of a database indispensable to the exercise of a particular activity. In such situations the database maker’s refusal to grant access to the contents of a database may indeed prevent the appearance of a new product and exclude competition on a neighbouring market. The case-law of CJEU on excessive and discriminatory pricing is more ambiguous – it is not entirely clear under what circumstances can interested parties claim that their rights have been violated by imposition of unfair prices. On the other hand, in order to successfully rely on Article 102 the two preconditions need to be fulfilled – the undertaking refusing access to the contents of a database must hold a dominant position and the abuse must be capable of affecting trade between member states. These preconditions considerably limit the scope of Article 102. In addition, for a compulsory license to be granted the interested party must turn to the competent competition authority that decides whether or not to initiate the proceedings. In case the proceedings are started and the case also goes to court the final outcome may take years. It can be concluded that compulsory licensing can be suitable for solving individual cases. However, it cannot be viewed as a standard regulation for markets.

1.5 Conclusions

Today technology enables making use of copyrighted works in ways previously unthinkable. Works can be processed by computers for conducting research or for developing new tools and services. In the course of automated processing of works copies of works are generally made. These copies are produced as a way technology works¹⁰⁰ and are not made public or accessible to the public.

Automated processing of works that entails the production of copies is not presently explicitly regulated in EU law and its legal standing is not entirely clear. The legal uncertainties however mean that in fear of violating the law many do not take the risk of developing such technologies and those that do, may opt to do it in secret. This in turn can negatively impact the competitiveness of EU. Automated processing of copyrighted works is a good example of developments in the field of technology bringing about the need to

¹⁰⁰ I. Hargreaves. Digital Opportunity – a Review of Intellectual Property and Growth, p 47.

establish a legal framework. The lack of suitable regulation may in turn bring about the slow-down of development.

On EU level, the automated processing of works falls in the scope of InfoSoc Directive, the Database Directive and to a limited extent under EU competition law. The right of reproduction belongs to the right holder and only in certain special cases listed in the InfoSoc Directive can copies of works be made without the prior consent of the right holder. It is presently not entirely clear whether the acts of reproduction made in course of automated processing of works fall under any of the copyright limitations listed in the InfoSoc Directive. Automated processing of works for the purpose of non-commercial scientific research might fall under the scope of copyright limitation for scientific research. The recent CJEU case-law also seems to suggest that automated processing of works might fall under the scope of copyright limitation for temporary acts of reproduction. In rulings *Infopaq I* and *Infopaq II* CJEU has developed five conditions that need to be fulfilled for Article 5(1) to apply. Although CJEU rulings provide interested parties sufficient ground for arguing that their actions fall under the scope of Article 5(1), it could hardly be claimed that CJEU case-law provides sufficient legal certainty.

In addition to uncertainties with regard to the right of reproduction, interested parties may also find it difficult to have access to works for the purpose of automated processing. Often works suitable or worth of processing are stored in databases that are in turn protected. The Database Directive offers databases copyright or the *sui generis* protection. In principle lawful users of a database are not allowed to extract substantial parts of a database without the permission of a database maker. This principle proves problematic with regard to automated processing of works – often scientific research and development of technologies that are based on making use of works require processing works in bulk.

Competition law instruments can in certain special cases be used to curtail the rights of intellectual property holders. In case database makers deny access to the contents of a database for the purpose of automated processing compulsory licensing could come into play. The CJEU case-law concerning compulsory licensing appears in a way promising – there most probably exist cases where the conditions developed by the court are fulfilled and a compulsory license would be granted. However, the proceedings are lengthy and meant for solving individual cases which does not guarantee sufficient legal certainty.

It can be concluded that although automated processing of copyrighted works is not explicitly regulated in the InfoSoc Directive it might fall under certain copyright limitations provided in the Directive. However, interested parties may due to EU database protection rules have difficulties with accessing works for the purpose of automated processing.

II MODERNISING EU COPYRIGHT IN THE DIGITAL ECONOMY

EU Commission has recently recognised the importance of issues related to text and data mining (that is on type of automated processing), though its actions in this field have to date been limited in scope. Second chapter of this paper maps Commission's actions to date in the field of automated processing of works and explores whether Commission's actions are sufficient meeting the goals set before EU copyright law. First an overview is provided of Commission's actions and positions in relation to copyright law with the aim of identifying the goals set before EU copyright legislation. Subsequently Commission's actions to date in the field of automated processing of works are analysed in the light of EU copyright goals and the interests of different stakeholders in order to explore whether EU Commission's words and actions go hand in hand.

2.1 EU Actions and Reasoning in the Field of Copyright

Article 118 of the Treaty on the Functioning of the European Union (TFEU) grants EU competence in the field of intellectual property, including copyright law.¹⁰¹ This has not always been the case as Article 118 was only introduced to the TFEU¹⁰² with the Lisbon Treaty in 2007.¹⁰³ The lack of explicit competence did not, however, stop EU from starting to harmonise legislation of copyright and related rights of Member States at the end of 1980s.

The European Commission of Communities issued in 1988 the Green Paper on Copyright and the Challenges of Technology¹⁰⁴ that resulted in the adoption of a number of

¹⁰¹ Article 118 of TFEU reads: "In the context of the establishment and functioning of the internal market, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish measures for the creation of European intellectual property rights to provide uniform protection of intellectual property rights throughout the Union and for the setting up of centralised Union-wide authorisation, coordination and supervision arrangements."

¹⁰² Before the adoption of the Lisbon Treaty the Treaty of Functioning of the European Union was named Treaty Establishing the European Community.

¹⁰³ Treaty of Lisbon amending the Treaty on European Union and the Treaty Establishing the European Community. 2007/C 306/01. 13.12. 2007. OJ C 306/1 17.12.2007, amendment 84. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:C:2007:306:FULL&from=EN> (01.05.2014).

¹⁰⁴ European Commission. Communication from the Commission. Green Paper on Copyright and the Challenge of Technology – Copyright Issues Requiring Immediate Action. COM (88) 172 final. Brussels: 07.06.1988. Available at: [http://ec.europa.eu/green-papers/pdf/green_paper_copyright_and_challenge_of_thechnology_com_\(88\)_172_final.pdf](http://ec.europa.eu/green-papers/pdf/green_paper_copyright_and_challenge_of_thechnology_com_(88)_172_final.pdf) (01.05.2014).

directives.¹⁰⁵ As the EC Treaty did not contain any provisions granting the Community legislative powers in the field of copyright, the Commission had to rely on other Treaty provisions. The first directives were “[...] primarily grounded on Article 95 EC Treaty, which is a legal basis for harmonisation necessary for the improvement of the conditions for the establishment and functioning of internal market.”¹⁰⁶ Pursuant to the recitals of the directives diverging national rules in the field of copyright hampered the proper functioning of the internal market, which justified the Community actions in this field.

The Commission announced in the Green Paper of 1988 that its concerns in the field of copyright were four-fold:¹⁰⁷

1. The Community must ensure the proper functioning of the common market (this requires elimination of obstacles and legal differences substantially disrupting the functioning of the market);
2. The Community should develop policies that will improve the competitiveness of its economy in relation to its trading partners;
3. Intellectual property resulting from creative effort and substantial investment within the Community should not be misappropriated by others outside its external frontiers;
4. The Commission recognised that in developing Community measures on copyright, due regard must be paid not only to the interests of the right holder but also to the interests of third parties and public at large.

In 1995 the Commission issued the second Green Paper in the field of copyright¹⁰⁸ where Commission, *inter alia*, expressed the view that intellectual property rights need adequate protection. According to the Commission “only if these rights are properly protected will there be the incentive to invest in the development of creative and innovative activity, which is one of the keys to added value and competitiveness in European industry.”¹⁰⁹ The notion of “adequate protection” was further developed by the Commission with the InfoSoc

¹⁰⁵ Presently EU copyright and related rights are harmonised by following directives: The Computer Programs Directive (Directive 2009/24/EC), the Rental Rights Directive (Directive 2006/115/EC), the Satellite and Cable Directive (Directive 93/83/EC), the Term Directive (Directive 93/98/EEC), the Database Directive (Directive 96/9/EC), the InfoSoc Directive (Directive 2001/29/EC), the Resale Right Directive (Directive 2001/84/EC), the Enforcement Directive (Directive 2004/48/EC), the Orphan Works Directive (Directive 2012/28/EU).

¹⁰⁶ B. P. Hugenholtz, M. van Echoud, S. van Gompel, L. Guibault, N. Helberger, M. Rossini, L. Steijger, N. Dufft, P. Bohn. The Recasting of Copyright and Related Rights for the Knowledge Economy. Final Report. November 2006, p 9. Available at:

http://ec.europa.eu/internal_market/copyright/docs/studies/etd2005imd195recast_report_2006.pdf (29.04.2014).

¹⁰⁷ European Commission. Green Paper on Copyright and the Challenge of Technology, pp 3–5.

¹⁰⁸ European Commission. Green Paper on Copyright and Related Rights in the Information Society. COM(95) 382 final. Brussels: 19.07.1995. Available at:

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:51995DC0382&from=EN> (01.05.2014).

¹⁰⁹ European Commission. Green Paper on Copyright and Related Rights in the Information Society, p 11.

Directive declaring that “any harmonisation of copyright and related rights must take as a basis a high level of protection, since such rights are crucial to intellectual creation [...]”¹¹⁰ According to the Commission for growth and competitiveness not only a harmonised body of law but also a high level of protection are needed¹¹¹ as the high level of protection rewards authors and stimulates their creativity.¹¹²

Today, the Commission continues to emphasise that EU copyright is seen as a promoter of growth and innovation. According to Commissioner N. Kroes “An effective, modern copyright system could play a significant role ensuring a vibrant single market for online content in Europe: not to mention supporting education, science and our economy. It also needs to stimulate innovation, and promote the production of new creative content.”¹¹³ The importance of copyright for the EU economy is also recognised in EU policy and strategy papers. Europe 2020 (the current EU growth strategy) develops the notion of Smart Growth – an economy based on knowledge and innovation.¹¹⁴ In this framework the Commission foresees various policies that enable achieving the set goals. One of the policies identified by the Commission is the need on EU level to modernise the framework of copyright and trademarks.¹¹⁵

However, it seems that although the goals before copyright (promotion of economic growth and competitiveness of EU) have stayed the same the means of achieving these goals have somewhat changed. The Commission is increasingly acknowledging the rights and needs of the public, consumers and other stakeholders.¹¹⁶ As C. Geiger has pointed out “[...] the focus has shifted to the question of how to guarantee an appropriate balance between protection and free uses – meaning, in short, how and where something can be taken away from the scope of the right where too much has previously been given.”¹¹⁷ Ten years ago the economic growth related to copyright was expected to derive from the high protection of

¹¹⁰ InfoSoc Directive, recital 9. See also InfoSoc Directive recitals 4, 11, 12.

¹¹¹ B. Hugenholtz, M. van Eechoud, S. van Gompel, L. Guibault, N. Helberger, M. Rossini, L. Steijger, N. Dufft, P. Bohn. *The Recasting of Copyright and Related Rights for the Knowledge Economy*, p 9–10.

¹¹² G. Tritton, R. Davis, M. Edenborough, J. Graham, S. Malynicz, A. Roughton. *Intellectual Property in Europe*. 2nd Edition. London: Thomson Sweet & Maxwell 2002, p 325.

¹¹³ Neelie Kroes Blog. Reform of EU Copyright rules: your chance to give your views. Available at:

http://ec.europa.eu/commission_2010-2014/kroes/en/content/reform-eu-copyright-rules-your-chance-give-your-views (29.04.2014).

¹¹⁴ European Commission. Communication from the Commission. Europe 2020: A Strategy for smart, sustainable and inclusive growth. COM(2010) 2020 final. Brussels: 03.03.2010, p 11–14. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF> (29.04.2014).

¹¹⁵ European Commission. Europe 2020: A Strategy for smart, sustainable and inclusive growth, p 12.

¹¹⁶ For example in the context of Smart Growth developed in Europe 2020 Strategy, the Commission is concerned about the comparatively smaller number of EU high-tech companies compared to the US and of Europe falling behind on high-speed internet, which affects its ability to innovate. European Commission. Europe 2020: A Strategy for smart, sustainable and inclusive growth, p 12.

¹¹⁷ C. Geiger. Promoting Creativity through Copyright Limitations: Reflections on the Concept of Exclusivity in Copyright Law. – *Vanderbilt Journal of Entertainment and Technology Law* 2010 Vol 12:3:515, pp 517–518.

rights, however, presently a copyright system that takes into account the needs and interests of different stakeholders is considered more suitable.

2.2 EU Commission Memorandum on the Way Forward for Modernising Copyright

On December 5th 2012 the Commission issued a Memorandum on the way forward for modernising copyright in the digital economy. The Commission announced two parallel tracks of action: 1) immediate issues for action and; 2) medium term issues for decision making.¹¹⁸

2.2.1 Immediate Issues for Action

Text and data (TDM) mining was one of the issues identified that demands a rapid progress and dialogue with stakeholders. However, the Commission's objective was to only promote TDM for non-commercial scientific research purposes. The Commission expressed the view that currently TDM requires contractual agreements between users (e.g. research institutions) and right holders (e.g. publishers of scientific journals)¹¹⁹ and at the end of year 2012 initiated the stakeholder dialogue for discussing innovative technological and licensing solutions to solve issues related to TDM for scientific research purposes.

EU Commission invited 37 organisations of different backgrounds to join the TDM working group; such as: Computers and Communications Industry Association, The Coalition for a Digital Economy, Communia – The European Thematic Network on the Digital Public Domain, European Magazine Media Association, IBM, Microsoft, National Centre for Text Mining at University of Manchester, Newscrop, Publishers Licensing Society, Reed Elsevier, International Association of Scientific, Technical & Medical Publishers, University of Namur etc.¹²⁰ In the course of 2013 six working group and two plenary meetings were held.

¹¹⁸ European Commission. Commission agrees way forward for modernising copyright in the digital economy, MEMO/12/950. Brussels: 05.12.2012. Available at: http://europa.eu/rapid/press-release_MEMO-12-950_en.htm (16.04.2014).

¹¹⁹ European Commission. Communication from the Commission on content in the Digital Single Market, COM(2012) 789 final. Brussels: 18.12.2012, p 4. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0789:FIN:EN:PDF> (17.04.2014).

¹²⁰ Working Group 4 – Text and Data mining. All organisations invited to join the Group/ nominate members of the group. Available at: http://ec.europa.eu/licences-for-europe-dialogue/sites/licences-for-europe-dialogue/files/131213_wg4-list-of-participants.pdf (18.04.2014).

At the first working group meeting that took place on 4th of February 2013 the Chair of the working group emphasised the need to stay within the scope of the first track of action agreed in the EU Commission Memorandum of 5th of December 2012 and to discuss practical solutions and not the interpretation of or changes to the existing legal framework.¹²¹ At the meeting of 8th of March 2013 this position was slightly softened. According to the Chair the focus of the discussion should be on practical market-based solutions but participants can also discuss other options, including legislative solutions.¹²² The roots of this development lie most likely in a letter of concern of 26th February 2013 sent by a group of concerned participants to Commissioners Barnier, Geoghegan-Quinn, Kroes and Vassiliou. The concerned stakeholders claimed that “[...] the research and technology companies have been presented not with a stakeholder dialogue, but a process with an already predetermined outcome – namely that additional licensing is the only solution to the problems being faced by those wishing to undertake TDM of content to which they already have lawful access” and that “such an outcome places European researchers and technology companies at a serious disadvantage compared to those located in the United States and Asia.”¹²³

At the meeting of 22nd of April 2013 the representative of the EU Commission assured that “stakeholders are invited to point to all the issues and limitations of current licensing models and indicate preferred options, including legislative reform” and that “the stakeholder dialogue does not affect the parallel on-going legislative review.”¹²⁴ A TDM related copyright exception was mentioned as one method of solving issues related to TDM.¹²⁵ However, the Commission’s assurances were not deemed as sufficient and on May 22nd 2013 nine organisations¹²⁶ announced their withdrawal from the TDM working group.

The withdrawing stakeholders express in their second letter addressed to Commissioners Barnier, Geoghegan-Quinn, Kroes and Vassiliou that “[...] any meaningful engagement on the

¹²¹ Working Group 4 – Text and Data Mining. Licences for Europe, Conclusions of Working Group 4 – Text and data mining, First Meeting, 04.02.2013, p 1. Available at:

<http://ec.europa.eu/licences-for-europe-dialogue/en/content/wg4-conclusions-meetings> (18.04.2014).

¹²² Working Group 4 – Text and Data Mining. Licences for Europe, Conclusions of Working Group 4 – Text and data mining, Second meeting, 08.03.2013, p 1. Available at:

<http://ec.europa.eu/licences-for-europe-dialogue/en/content/wg4-conclusions-meetings> (18.04.2014).

¹²³ Letter sent by concerned participants in response to the “Licences for Europe – A Stakeholder Dialogue” workshop on text and data mining for scientific research purposes, 26.02.2013. Available at:

<http://www.libereurope.eu/news/licences-for-europe-a-stakeholder-dialogue-text-and-data-mining-for-scientific-research-purpose> (18.04.2014).

¹²⁴ J. F. Dechamp. The European Commission policy on open Access: the importance of text and data mining, Brussels 22.04.2013, slide 14. Available at: <http://ec.europa.eu/licences-for-europe-dialogue/en/content/wg4-presentations-3rd-meeting-22-april> (18.04.2014).

¹²⁵ J. F. Dechamp. The European Commission policy on open Access: the importance of text and data mining, slide 14.

¹²⁶ The Association of European Research Libraries, The Coalition for a Digital Economy, European Bureau of Library Information and Documentations Associations, The Open Knowledge Foundation, Communia, Ubiquiti Press Ltd, Trans-Atlantic Consumer Dialogue, National Centre For Text Mining (University of Manchester), European Network for Copyright in support of Education and Science.

legal framework within which data driven innovation exist must, as a point of centrality, address the issue of limitations and exceptions. Having placed licensing as the central pillar of the discussion, the Working Group has not made this focused evaluation possible. Instead the dialogue on limitations and exceptions is only taking place through the refracted lens of licensing. This incorrectly presupposes that additional relicensing of already licensed content (i.e. double licensing) – and by implication of the open internet – is the solution to the rapid adoption of the TDM technology.”¹²⁷ The concerned stakeholders also state their firm belief that “the right to read is the right to mine” and “point to the urgent need to be competitive with the United States and the high-tech economies in Japan and South Korea, where legal barriers to TDM are far lower precisely because of the existence of copyright limitations and exceptions there.”¹²⁸

This chronology of events illustrates well that issues related to the automated processing of works are not easy to solve due to colliding interests of different stakeholders. Publishers advocate for licensing whereas libraries, technology companies and open access publishers hold the view that licensing puts users interested in TDM at the mercy of publishers and the matter should be resolved by introducing a copyright exception.

2.2.2 Medium Term Issues for Decision Making

In the Memorandum of the 5th of December 2012 the Commission also expressed the need to analyse whether to go forward with a legislative reform.¹²⁹ At the end of year 2013 public consultation on the review of EU copyright rules was opened. The closing date of the public consultation was the 5th of March 2014. Results of the consultation were not available to the public at the time of writing of this paper.

¹²⁷ Letter from European Technology SMEs, Open Access Publishers and the Research Sector WG4. Available at: http://www.eblida.org/News/Letter_of_withdrawalL4E_TDM_May%2024.pdf (18.04.2014).

¹²⁸ Letter from European Technology SMEs, Open Access Publishers and the Research Sector WG4. Available at: http://www.eblida.org/News/Letter_of_withdrawalL4E_TDM_May%2024.pdf (18.04.2014).

¹²⁹ European Commission. Commission agrees way forward for modernising copyright in the digital economy, MEMO/12/950.

2.3 The Possible Impact of Solving Issues Related to TDM by Licensing Schemes

2.3.1 Potential Advantages of TDM Licensing for Non-Commercial Research Purposes

From a practical point of view it is understandable that the Commission wanted to restrict the discussions related to automated processing of works only to TDM of scientific works for the purpose of non-commercial scientific research and initially saw (and possibly still sees) licensing as the appropriate instrument for dealing with these issues.

The science publishing market is to a large extent publicly funded. The output of research is typically not bought by journals but “donated” by publicly funded researchers; the evaluation of research outputs is also heavily subsidised and journals are bought by publicly funded researchers, or more often, by publicly-funded libraries.¹³⁰ As scientific publishing relies largely on public funds it is easy to find arguments why scientific works should be available for further use by other scientists. It is certain that if Commission was to argue that database owners should enable automated processing all types of works for various commercial and non-commercial purposes it would meet more resistance than it presently meets. Scientific publishers have also demonstrated their positive attitude towards licensing and are proposing solutions for its implementation.¹³¹ This means that the Commission has one very powerful group of stakeholders at its side. Organisations that oppose additional licensing are of different nature (libraries, technology companies, research centres etc.) and though they are all advocating against licensing they are not as homogeneous as publishers.

Another reason for favouring licensing could lie in problems related to potential copyright reform. A properly functioning licensing system would dissolve one of the urgent needs for initiating changes to the current EU copyright legislation – no doubt a process more congenial to avoid than to go forward with. It is evident that the views of stakeholders collide making it very difficult to reach a common position. It is understandable why in such settings the Commission seems to have difficulties with deciding how to go forward.

¹³⁰ M. Dewatripont, V. Ginsburgh, P. Legros, A. Walckiers, J. P. Devroey, M. Dujardin, F. Vandooren, P. Dubois, J. Foncel, M. Ivaldi, M. D. Heusse. Study on the economic and technical evolution of the scientific publications market in Europe. Commissioned by European Commission DG-Research. Final Report January 2006, p 16. Available at: http://ec.europa.eu/research/science-society/pdf/scientific-publication-study_en.pdf (01.05.2014).

¹³¹ For example, scientific publishers have proposed standard clauses for licensing agreements.

2.3.2 Doubts Concerning TDM Licensing for Non-Commercial Research Purposes

If EU was to go forward with TDM licensing only for the purpose of non-commercial research then the most important question would be the question concerning the eligibility. When publishers declare that TDM for non-commercial research purposes is allowed at “no extra cost” or at “reasonable terms” (as was indicated by some publishers at the stakeholder dialogue plenary meeting),¹³² then which institutions and research projects fulfil this criteria and who is to decide? The difference between commercial and non-commercial research is not as clear-cut as may appear at first sight. A good example is universities – traditionally non-commercial research institutions. J. Reichman and R. Okediji have pointed out that universities routinely engage in commercial exploitation of their scientific research, allowing publishers to argue, that research conducted by universities is commercial.¹³³ Research institutions may also have projects that are partly private and partly public funded. As it is difficult to draw a line between commercial and non-commercial research, publishers’ commitment to offering “reasonable conditions” for non-commercial text and data mining may remain only a declaration on paper.

Licensing also enables publishers to maintain total control over the use of content of the database. This may result in not all users having the opportunity to carry out TDM according to their needs (e.g. not all works of the database are available for TDM). This, in turn, can have a negative impact on scientific research, as “small deficits in the representation of previous scientific knowledge can be decisive for the success of any research project.”¹³⁴

Although TDM for non-commercial research purposes has been the centre of attention of the Commission’s initiatives, it is clear that non-profit research institutions are not the only ones interested in text and data mining. New technologies are not only developed by non-commercial research institutions but primarily by commercial entities that presently appear to be outside the Commission’s radar. In addition, it should be pointed out that resources that publicly funded libraries can allocate for acquiring access to databases of scientific research are by no means comparable to the resources of small or medium-sized enterprises.¹³⁵ The

¹³² Statement of Commitment by STM Publishers to a Roadmap to enable Text and Data Mining (TDM) for Non-Commercial Scientific Research in the European Union. 12.11.2013, p 2. Available at: <http://ec.europa.eu/licences-for-europe-dialogue/sites/licences-for-europe-dialogue/files/10-Text-data-mining.pdf> (20.04.2014).

¹³³ H. Reichman; R. L. Okediji. When Copyright and Science Collide: Empowering Digitally Integrated Research Methods on Global Scale, p 1382.

¹³⁴ R. M. Hilty, S. Krutzat, B. Bajon, A. Früh, A. Kur, J. Drexler, C. Geiger, N. Klass. European Commission – Green Paper: Copyright in the Knowledge Economy – Comments by the Max Planck Institute for Intellectual Property, Competition and Tax Law December 2009, p 6. Available at: <http://papers.ssrn.com/sol3/papers.cfm?abstract-id=1317730> (01.05.2014).

¹³⁵ Enterprises interested in text and data mining are not necessarily as big and successful as Google, E-Bay etc.

capacity of EU to build on the growth and innovation potential of small and medium-sized enterprises is, however, considered as decisive for the future prosperity of the EU¹³⁶ as more than 99% of all European businesses are in fact small and medium-size enterprises.¹³⁷

2.4 Conclusions

EU has since the end of 1980s considered harmonised EU copyright law as one means for promoting economic growth and increasing the competitiveness of EU. For a period the EU Commission saw the high protection of the rights of right holders as the principal tool for promoting economic growth. In 2014 the EU Commission still considers EU copyright as a source of economic growth and the promoter of innovation. However, the Commission has in recent years been advocating that in addition to the rights of right holders, the rights of other stakeholders need to be taken into account. EU has recently recognised the importance of issues related to text and data mining of works but has so far dealt with these issues to a relatively limited scope only.

At the end of year 2012 the EU Commission initiated the stakeholder dialogue for discussing innovative licensing solutions to text and data mining of scientific works for the purpose of non-commercial research. Many stakeholders present at the stakeholder dialogue considered EU Commission's approach as flawed – in their view issues related to text and data mining should not be solved by additional licensing schemes but by the adoption of relevant copyright exceptions and limitations. In their view additional licensing puts EU scientists at a serious disadvantage compared to their colleagues in US and Asia where legal barriers to text and data mining are lower.

To date, the Commission has primarily dealt with text and data mining. The very limited scope of discussions – text and data mining of scientific works for non-commercial research purposes – may hinder achieving the goals set before EU copyright law. Today's reality is that larger part of new technologies, tools and services are not developed on non-commercial research basis. Leaving commercial entities and commercial research projects completely outside the Commission's radar, the hoped economic growth and innovation may not be achieved. It seems that Commission's discourse on the future of

¹³⁶ European Commission. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions, "Think Small First" A "Small Business Act" for Europe. COM(2008) 394 final. Brussels: 25.06.2008, p 2. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0394:FIN:EN:PDF> (01.05.2014).

¹³⁷ European Commission website on Enterprise and Industry. Available at: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/index_en.htm (01.05.2014).

copyright and its present actions do not go hand in hand. On the one hand the Commission emphasises the need to reform copyright to promote growth and innovation and on the other hand Commission deals only selectively and to a limited scope with problems before EU copyright. The public consultation on the review of the EU copyright rules may bring about changes in Commission's plans. It should, however, be noted that legislative review is a lengthy process.

III INTERNATIONAL COPYRIGHT LAW AND THE US APPROACH

The first chapter of this paper explored whether automated processing of copyrighted works complies with EU legislation. It was concluded that although automated processing is not explicitly mentioned in EU intellectual property legislation it appears to fall under the scope of the InfoSoc Directive, the Database Directive and to some extent EU competition law. Although automated processing of works appears to fall under the scope of the scientific research and the temporary reproduction copyright limitations the current situation does not provide sufficient legal certainty. In addition, access to works for the purpose of automated processing is further restricted due to EU database protection rules.

EU has recently turned its attention to issues related to the automated processing but has so far decided to deal with the issues selectively and partially. Second chapter of this paper concluded that EU actions to date are not sufficient for meeting the goals set before EU copyright law – promotion of economic growth and innovation.

The following chapter explores the options that EU has under international law in case EU decided to go forward with a legislative reform. First the relevant international obligations that EU is bound by are analysed. Secondly this chapter explores how US, which is bound by the same international obligations as EU, has shaped its copyright and database protection legislation. US is chosen as a country of comparison as it is one of the main trading partners of EU as well as an influential representative of a different copyright tradition – the common law copyright tradition.

3.1 International Copyright Law

International copyright law, similarly to EU legislation, does not recognise the term “automated processing” of copyrighted works. The most relevant international treaties in the context of automated processing of works are the Berne Convention for the Protection of Literary and Artistic Works¹³⁸ (the Berne Convention), the Agreement on Trade Related

¹³⁸ Berne Convention for the Protection of Literary and Artistic Works (as revised in Paris 24.07.1971 and as amended 28.09.1979). Available at: http://www.wipo.int/treaties/en/text.jsp?file_id=283698 (04.05.2014).

Aspects of Intellectual Property Rights¹³⁹ (the TRIPS Agreement) and the World Intellectual Property Organisation Copyright Treaty¹⁴⁰ (the WIPO Copyright Treaty).

The Berne Convention, the eldest of the three, has much influenced the latter two. The TRIPS Agreement incorporates the key substantive provisions of the Berne Convention but also raises the standard for copyright protection beyond Berne Convention.¹⁴¹ WIPO Copyright Treaty is a special agreement under the Berne Convention – all WIPO Copyright Treaty parties must comply with the substantive provisions of the Berne Convention.

The three treaties offer copyright protection to a wide array of works in whatever form. Article 2 of the Berne Convention enumerates all types of works that are protected by the Convention. The TRIPS Agreement and the WIPO Copyright Treaty refer to Article 2 of the Berne Convention and at the same time contain specific provisions offering protection to works not explicitly mentioned in Article 2 – for example databases and computer programs.¹⁴² It is in the field of protection of databases that the EU surpasses the protection provided by international treaties. The Berne Convention (Article 2), the TRIPS Agreement (Article 10) and the WIPO Copyright Treaty (Article 5) only provide copyright protection to databases – compilations of data which by reason of the selection or arrangement of their contents constitute intellectual creations are offered protection and the protection does not extend to the contents of a database. The three treaties do not recognise the *sui generis* protection of databases offered by the EU Database Directive.

The guiding principle incorporated into the three treaties is that the intellectual property requires strong protection. Only when the conditions set in the “three-step test” are met, are contracting parties allowed to adopt exceptions and limitations to exclusive rights (such as the right of reproduction) granted by the treaties. The principles of the three-step test

¹³⁹ Agreement on Trade Related Aspects of Intellectual Property Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299. Available at: http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm (04.05.2014).

¹⁴⁰ World Intellectual Property Organisation Copyright Treaty 1996, 36 ILM 65 (1997). Available at: http://www.wipo.int/treaties/en/text.jsp?file_id=295166 (04.05.2014)

¹⁴¹ H. G. Ruse-Khan. Access to Knowledge under the International Copyright Regime, the WIPO Development Agenda and the European Communities’ New External Trade and IP Policy, pp 576–577. – Research Handbook on the Future of EU Copyright. Edited by E. Derclaye, Edward Elgar Publishing 2009.

¹⁴² The Berne Convention does not explicitly mention the term “database”. Databases are granted protection under the term “compilation” mentioned in Article 2 of the Berne Convention.

were first developed in the Berne Convention¹⁴³ and later slightly modified and incorporated into the TRIPS Agreement¹⁴⁴ as well as the WIPO Copyright Treaty¹⁴⁵.

In principle, according to the three-step test exceptions and limitations to copyright can be adopted 1) in certain special cases; 2) which do not conflict with a normal exploitation of the work and 3) do not unreasonably prejudice the legitimate interests of the right holder. In case EU was to revise its legislation in order to regulate issues related to automated processing of works, these legislative changes need to be in compliance with the conditions set in the three-step test.

Of the three treaties mentioned, the TRIPS Agreement is deemed as the most influential. The reason lies in the more effective dispute settlement mechanism provided by the TRIPS Agreement. According to Article 33(1) of the Berne Convention disputes concerning the interpretation or application of the convention may be brought before the International Court of Justice (ICJ). However, the weakness of this instrument lies in paragraph (2) of the same Article according to which each country can declare that it does not consider itself bound by paragraph (1). To date, ICJ has not decided a single case concerning the interpretation and application of the Berne Convention.¹⁴⁶

The TRIPS Agreement provides more effective means for resolving a dispute. According to Article 64 of the TRIPS Agreement the disputes under the TRIPS Agreement are subject to the WTO dispute settlement procedures. The WTO Dispute Settlement Body can decide disputes concerning the compliance of national laws with TRIPS obligations.¹⁴⁷ According to Article 19 of the Understanding on Rules and Procedures Governing the

¹⁴³ Article 9(2) of the Berne Convention reads: “It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.”

¹⁴⁴ Article 13 of the TRIPS Agreement reads: “Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder.”

¹⁴⁵ Article 10 of the WIPO Copyright Treaty reads: “(1) Contracting Parties may, in their national legislation, provide for limitations of or exceptions to the rights granted to authors of literary and artistic works under this Treaty in certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author. (2) Contracting Parties shall, when applying the Berne Convention, confine any limitations of or exceptions to rights provided for therein to certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author.”

¹⁴⁶ S. E. Henry. The First International Challenge to U.S. Copyright Law: What Does the WTO Analysis of 17 U.S.C. § 110(5) Mean to the Future of International Harmonization of Copyright Laws Under the TRIPS Agreement? – Penn State International Law Review 2001 Vol 20 No 1, p 6. Available at: <http://cyber.law.harvard.edu/people/tfisher/IP/Henry%202001.pdf> (23.04.2014).

¹⁴⁷ The disputes are first assessed by a Panel composed of well qualified governmental and non-governmental individuals (Article 8 of the Understanding). The Panel issues a Report that is submitted to the Dispute Settlement Body (Article 12 of the Understanding). The Panel Report is adopted by the Dispute Settlement Body. The Dispute Settlement Body uses “reversed consensus” for adopting the Panel Reports – the Panel Report is adopted unless there is a consensus not to adopt the Report (Article 16 of the Understanding).

Settlement of Procedures (hereinafter the Understanding)¹⁴⁸ the laws of Member States can be found to violate the TRIPS Agreement. In such a case, a Member State is recommended to bring its legislation into conformity with the TRIPS Agreement. In case a Member State fails to do so, the Understanding foresees that the affected Member State can retaliate by suspending equivalent obligations under the TRIPS.¹⁴⁹

3.1.1 Three-Step Test before the WTO Dispute Settlement Body

So far, the WTO Dispute Settlement Body has only in one occasion dealt with the interpretation and application of the three-step test. The dispute concerned Section 110(5) of the US Copyright Act of 1976, which placed limitations on the exclusive rights of copyright holders.¹⁵⁰ The European Communities (EC) alleged that two copyright exemptions provided in Section 110(5) were in violation of the United States' obligations under the TRIPS Agreement and could not be justified under any exception or limitation permissible under the Berne Convention or the TRIPS Agreement.¹⁵¹ The EC requested the WTO dispute settlement panel (hereinafter the WTO Panel) to find that the US had violated its obligations and recommend that the US bring its domestic legislation into conformity with its obligations under the TRIPS Agreement.¹⁵² The US contended that Section 110(5) was fully consistent with its obligations under the TRIPS Agreement as contracting parties are allowed to place minor limitations on the exclusive rights of copyright holders. According to US Article 13 of the TRIPS Agreement provides the standard by which to judge the appropriateness of such limitations and exceptions and the exceptions described in Section 110(5) fall within the Article 13 standard.¹⁵³

According to the WTO Panel “a major issue in this dispute was the interpretation and application to the facts of this case of Article 13 of the TRIPS Agreement.”¹⁵⁴ The WTO Panel stated that in order to determine whether exceptions to copyright provided in US Copyright Act meet the US obligations under the TRIPS Agreement Article 13 [the three-step

¹⁴⁸ Understanding on Rules and Procedures Governing the Settlement of Procedures is Annex 2 of the WTO Agreement. Available at: http://www.wto.org/english/tratop_e/dispu_e/dsu_e.htm (02.05.2014).

¹⁴⁹ H. G. Ruse-Khan. Access to Knowledge Under the International Copyright Regime, pp 576 – 577.

¹⁵⁰ World Trade Organisation. United States – Section 110(5) of the US Copyright Act. Report of the Panel. WT/DS160/R, 15.06.2001, paragraph 1.1. Available at: [http://www.worldtradelaw.net/reports/wtopanelsfull/us-copyright\(panel\)\(full\).pdf](http://www.worldtradelaw.net/reports/wtopanelsfull/us-copyright(panel)(full).pdf) (23.04.2014).

¹⁵¹ WTO. US – Section 110(5), paragraph 3.1.

¹⁵² WTO. US – Section 110(5), paragraph 3.2.

¹⁵³ WTO. US – Section 110(5), paragraph 3.3.

¹⁵⁴ WTO. US – Section 110(5), paragraph 6.30.

test] needs to be applied.¹⁵⁵ The WTO Panel emphasised that the three conditions set in Article 13 apply on a cumulative basis and failure to comply with any of the conditions results in the Article 13 exception being disallowed.¹⁵⁶

The findings of the WTO Panel with regard to the first step of the three-step test – in certain special cases – can be summarised as follows: 1) Copyright limitation must be clearly defined. However, there is no need to identify each and every possible situation to which the exception could apply as the sufficient degree of legal certainty is guaranteed if the exception is known and particularised;¹⁵⁷ 2) The term “special” means that more is needed than a clear definition – in addition, a limitation must be limited in its field of application or be exceptional in its scope.¹⁵⁸

With regard to the second step of the three-step test – no conflict with the normal exploitation of the work – the WTO Panel held the opinion that “[...] exceptions or limitations would be presumed not to conflict with a normal exploitation of works if they are confined to a scope or degree that does not enter into economic competition with non-exempted uses.”¹⁵⁹ In the WTO Panel’s view there is a conflict with the normal exploitation of the work if “[...] uses, that in principle are covered by that right but exempted under the exception or limitation, enter into economic competition with the ways that right holders normally extract economic value from that right to the work (i.e., the copyright) and thereby deprive them of significant or tangible commercial gains.”¹⁶⁰

In relation to the third step of the three-step test – limitation does not unreasonably prejudice the legitimate interests of the right holder – the WTO Panel has stated that “[...] prejudice to the legitimate interests of right holders reaches an unreasonable level if an exception or limitation causes or has the potential to cause an unreasonable loss of income to the copyright owner.”¹⁶¹

The WTO Panel analysed the “Homestyle Exemption” and the “Business Exemption” provided on Section 110(5) of US Copyright Act in light of Article 13 of the TRIPS Agreement and ruled that the “Homestyle Exemption” (US Copyright Act Section 110(5) subparagraph A) was in compliance with Article 13 whereas the “Business Exemption” (US Copyright Act Section 110(5) subparagraph B) did not meet the requirements of Article 13 of the TRIPS Agreement. The WTO Panel recommended that the Dispute Settlement Body

¹⁵⁵ WTO. US – Section 110(5), paragraph 6.91.

¹⁵⁶ WTO. US – Section 110(5), paragraph 6.97.

¹⁵⁷ WTO. US – Section 110(5), paragraph 6.108.

¹⁵⁸ WTO. US – Section 110(5), paragraph 6.109.

¹⁵⁹ WTO. US – Section 110(5), paragraph 6.181.

¹⁶⁰ WTO. US – Section 110(5), paragraph 6. 183.

¹⁶¹ WTO. US – Section 110(5), paragraph 6.229.

request the US to bring subparagraph (B) of Section 110(5) into conformity with its obligations under the TRIPS Agreement.¹⁶² The Dispute Settlement Body adopted the WTO Panel Report 27.07.2000.¹⁶³ However, to date the US has not brought its legislation into conformity with the TRIPS Agreement.¹⁶⁴

3.1.2 Opinions on the WTO Dispute Settlement Body Report

The above-referenced case is the only WTO Dispute Settlement Body case concerning the application of Article 13 TRIPS and has received diverging views. Concerns have been raised that “a restrictive approach to the “three-step test” risks paralysing the development of copyright exceptions and harming the public interest in the digital environment.”¹⁶⁵ WTO Panel interpretation of the second step of the three step test has perhaps been criticised most heavily. According to the interpretation of the WTO Panel the “normal exploitation of the work” is ever expanding – “any economically significant exploitation that the right holder realistically can, or will be able to, individually license comes within the scope of “normal exploitation.”¹⁶⁶ J. Ginsburg also point out that such interpretation could result in even traditionally privileged uses, such as scholarship or parody, to come under “normal exploitations” in case right holders devised low transaction cost method for charging for them.¹⁶⁷ In 2008 a group of intellectual property scholars issued a declaration “A balanced Interpretation of the “Three-Step Test” in Copyright Law.” According to the declaration signatories consider certain interpretations of the three-step test at international level to be undesirable and declare *inter alia* that the three steps are to be considered together in a comprehensive overall assessment and that the test does not require copyright limitations to be interpreted narrowly but to their objectives and purposes.¹⁶⁸

¹⁶² WTO. US – Section 110(5), paragraph 7.2.

¹⁶³ WTO Website. Dispute Settlement: Dispute DS 160, United States – Section 110(5) of US Copyright Act. Available at: http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds160_e.htm (23.04.2014).

¹⁶⁴ On 23.06.2003 US and EC informed the Dispute Settlement Body of a mutually satisfactory temporary agreement.

¹⁶⁵ J. Griffiths. The “Three-Step Test” in European Copyright Law – Problems and Solutions. Queen Mary School of Law Legal Studies Research Paper No. 31/2009, p 10. Available at: <http://ssrn.com/abstract=1476968> (23.04.2014).

¹⁶⁶ J. C. Ginsburg. Toward Supranational Copyright Law? The WTO Panel Decision and the “Three-Step Test” for Copyright Exceptions. – *Revue Internationale du Droit d’Auteur* 2001, p 14. Available at: <http://dx.doi.org/10.2139/ssrn.253867> (23.04.2014).

¹⁶⁷ J. C. Ginsburg. Toward Supranational Copyright Law?, p 14.

¹⁶⁸ C. Geiger, R. M. Hilty, J. Griffiths, U. Suthersanen et al. Declaration. A Balanced Interpretation of the “Three-Step Test” in Copyright Law, Munich: 2008, p 4. Available at: http://www.ip.mpg.de/files/pdf2/declaration_three_step_test_final_english.pdf (23.04.2014).

The “position” and the influence of the WTO Panel Report are to date not entirely clear. On the one hand the Report so far remains the sole interpretation of the three-step test by WTO in the context of copyright law and its influence on future WTO copyright case-law remains to be seen. Although the WTO Panel Report required US to bring its legislation into conformity with the TRIPS Agreement this has so far not happened, which considerably reduces the credibility of the Report. On the other hand, the WTO Panel Report is the official interpretation of the three-step test and should not be wholly discarded when contracting parties make changes to their respective copyright laws.

3.2 Copyright Law and Automated Processing of Works in the United States

The European Union and the United States are both parties to the TRIPS Agreement, meaning that under international law their obligations related to copyright law are uniform. At the same time their respective copyright systems differ considerably. International instruments, such as the TRIPS agreement, have reduced differences between different copyright systems.¹⁶⁹ However, the underlying principles and the structure of different systems have been left intact.

The common-law copyright tradition, such as that of US, is based on a utilitarian rationale – “[c]opyright is not an inevitable, divine or natural right that confers on authors the absolute ownership of their creations. It is designed rather to stimulate activity and progress in the arts for the intellectual enrichment of the public.”¹⁷⁰ This utilitarian rationale is expressed in the US Constitution according to which the US Congress has the power to “to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries”¹⁷¹. The continental European copyright tradition (*droit d’auteur*) on the other hand emphasises the importance of the author as the “[...] literary or artistic work is perceived as a materialization of the author’s personality.”¹⁷² The difference between the *droit d’auteur* and common law copyright systems is perhaps the clearest with regard to copyright exceptions and limitations. *Droit d’auteur* provides a narrow scope of exceptions and limitations that are restrictively

¹⁶⁹ G. B. Ramello. Intellectual Property and the Market of Ideas, p 130. The Elgar Companion to Law and Economics, 2nd Edition. Edited by J. G. Backhaus. Edward Elgar Publishing Inc, 2005.

¹⁷⁰ P. N. Leval. Toward a Fair Use Standard. – Harvard Law Review 1990 Vol 103 No 5, p 1107.

¹⁷¹ U.S. Const. art I § 8 cl. 8.

¹⁷² M. Senftleben. Overprotection and Protection Overlaps in Intellectual Property Law – The Need for Horizontal Fair Use Defences, p 3. The Structure of Intellectual Property Law: Can One Size fit All? Edited by A. Kur, V. Mizaras, Cheltenham, Edward Elgar Publishing 2011. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1597123 (23.04.2014).

interpreted. Common law copyright system on the other hand leaves more room for limitations and exceptions. Variations in the system of copyright limitations illustrate well the difference between respective ideas underlying both systems – focus on the protection of author versus focus on the well-being of society.¹⁷³

Another difference between the US and EU copyright systems is that unlike EU, the US legislation does not recognise the *sui generis* protection of databases. In US “copyright protection is provided for the creativity in the selection or arrangement of the database material [but] no protection is provided for the data contained within the database.”¹⁷⁴ Users wishing to extract contents of a database protected by copyright can in court rely on the fair use defence that is further analysed in the next section. Makers of databases that do not fulfil the necessary conditions for copyright protection can deny the right to extract contents of a database by relying on contract law and unfair competition law, thereby protecting their investment.

3.2.1 Fair Use Doctrine

US copyright recognises a fair use doctrine, which is a defence to an act that would otherwise constitute a copyright infringement.¹⁷⁵ Fair-use doctrine is a judge-made doctrine that was codified in the Article 107 of the US 1976 Copyright Act. Article 107 provides the following four factors that the courts are expected to consider in determining whether a particular use of a copyrighted work is fair:

1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
2. the nature of the copyrighted work;
3. the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. the effect of the use upon the potential market for or value of the copyrighted work.

In Judge P. N. Leval’s words “[t]he factors do not represent a score card that promises victory to the winner of the majority. Rather, they direct courts to examine the issue from every pertinent corner and to ask each case whether, and how powerfully, a finding of fair use

¹⁷³ S. von Lewinski. *International Copyright and Policy*. Oxford: Oxford University Press 2008, p 56.

¹⁷⁴ M. J. Davidson. *The Legal Protection of Databases*, p 10.

¹⁷⁵ B. A. Greenberg. *Copyright Trolls and Presumptively Fair Uses*. – *University of Colorado Law Review* 2014 Vol 85, p 92.

would serve or disserve the objectives of the copyright.¹⁷⁶ The US Supreme Court, referring to the work of P. N. Leval, stated in *Campbell v. Acuff-Rose Music* that the four statutory factors may not be treated in isolation, one from another but “[a]ll are to be explored and the results weighed together, in light of the purposes of copyright.”¹⁷⁷

The US Supreme Court cases such as the *Sony Corp. of Am. v. Universal City Studios, Inc* (1984), *Harper & Row, Publishers Inc, v Nation Enters* (1985) and perhaps the most importantly *Campbell v. Acuff-Rose Music, Inc* (1994) have, to a large extent, shaped and influenced the evolution of the fair use doctrine and the interpretation of the four factors. In *Campbell* the Supreme Court stated that the purpose of the first factor is to determine whether the new works is “transformative” (adding something new or altering the original work). In the opinion of the Supreme Court “[...] the goal of copyright, to promote science and the arts, is generally furthered by the creation of transformative works” and that “[...] the more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against finding of fair use.”¹⁷⁸

Concerning the amount of work used (third factor), the Court stated in *Campbell* that “[...] we recognize that the extent of permissible copying varies with the purpose and character of the use” and referred to a finding in *Sony* that the reproduction of an entire work does not necessarily preclude finding fair use. With regard to the effect on the market, the Court stated that “it requires courts to consider not only the extent of market harm caused by the particular actions [...] but also “whether unrestricted and wide-spread conduct of the sort engaged in by the defendant...would result in a substantially adverse impact on the potential market” for the original”¹⁷⁹ and that “[...] when [...] the second use is transformative, market substitution is at least less certain, and market harm may not be so readily inferred.”¹⁸⁰

Some concerns have been raised that in the light of the WTO Panel Report the legality of US copyright “fair-use” is under question.¹⁸¹ These concerns appear to be unfounded. The TRIPS Agreement has from the start united countries with very different legal traditions. The US is one of the most influential members of the WTO and was one of the negotiating parties of the TRIPS Agreement. It has been suggested that “[...] the signatories of TRIPS Agreement (and already those of the Berne Convention, when Article 9.2 was inserted) were aware of the legal approach taken in U.S copyright, and deliberately aimed to draft a compromise between

¹⁷⁶ P. N. Leval. *Toward a Fair Use Standard*, pp 1110–1111.

¹⁷⁷ *Campbell v. Acuff-Rose Music, Inc (Campbell)*, 510 U.S. 569 (1994), p 578.

¹⁷⁸ *Campbell*, p 579.

¹⁷⁹ *Campbell*, p 590.

¹⁸⁰ *Campbell*, p 591.

¹⁸¹ H. Sun. *Overcoming the Achilles Heel of Copyright Law*. – *Northwestern Journal of Technology and Intellectual Property* 2007 Vol 5 No 2, p 291.

systems employing flexible clauses and those operating on the basis of closed catalogues¹⁸². Taking into consideration the influence of US and the development of the TRIPS Agreement it seems implausible that a WTO panel could declare over 200 years of US copyright tradition to violate international copyright law. In addition, the selective enforcement of Dispute Settlement Body rulings indicates that even if such violation was identified, it would not be guaranteed that any practical changes in Member States legislations would follow.¹⁸³

3.2.2 Google Books Case before US and European Courts

Recent case-law of US and European courts indicates different attitudes towards adoption of technologies making use of copyrighted works. A remarkable example is the Google Books case that has been before European and US courts. The case concerned Google scanning and indexing books without the prior consent of right holders and the use of these digital copies by Google for non-display ends. In US the Author's Guild considered Google's actions as a major copyright infringement and started proceeding against Google. The ruling of the US district court, delivered at the end of year 2013, analysed the four factors enumerated in Article 107 and ruled in favour of Google. Judge Chin found that "Google's use of the copyrighted works is highly transformative"¹⁸⁴ as the book text is used to facilitate search and "transformed [...] into data for purposes of substantive research, including data mining and text mining in new areas, thereby opening up new fields of research."¹⁸⁵ According to Judge Chin "Words in books are being used in a way they have never been used."¹⁸⁶ Although Judge Chin found that full-work reproduction of the work (factor number three) "[...] weighs slightly against a finding of fair use" he was of the opinion that all factors are to be weighed together in the light of the purpose of copyright and concluded that "[...] Google Books provides significant public benefits"¹⁸⁷ and constitutes a fair use. Although the outcome of the proceedings was positive for Google, it should be noted that the decision delivered by Judge Chin was the ruling of the first instance court and that the final outcome of the litigation may differ, as the Authors' Guild filed an appeal.

In France, Google was sued for the Google Books project by different groups of right holders. The case initiated by French publishers associations was before the Tribunal de

¹⁸² A. Kur. Of Oceans, Islands and Water – How Much Room for Exceptions and Limitations under the Three-Step Test? – Richmond Journal of Global Law & Business 2009 Vol 8 No 3, p 315.

¹⁸³ S. von Lewinski. International Copyright Law and Policy, pp 313–314.

¹⁸⁴ *The Authors Guild Inc v Google Inc, (Google Books)* 05 Civ 8136. 14.11.2013, p 19.

¹⁸⁵ *Google Books*, p 20.

¹⁸⁶ *Google Books*, p 20.

¹⁸⁷ *Google Books*, p 26.

Grande Instance de Paris. The Tribunal ruled in 2009 that Google Books violated the French copyright law¹⁸⁸ finding *inter alia* that according to Article L 122-4 du Code de la Propriété Intellectuelle making reproductions of the work without the prior consent of the right-holder was not permissible and violated the rights of authors. Characteristic to a continental Europe copyright ruling, the tribunal did not take into account or apply any general principles such as “reasonableness and fairness”¹⁸⁹ but only analysed the compliance of the Google Books project with the statutory French copyright regulation.¹⁹⁰ The reasoning of courts and the final outcome of the cases before the French and the US Court differ remarkably, although both are bound with the TRIPS Agreement.

3.3 Conclusions

International treaties regulating copyright set the minimum standards of protection that the contracting parties have to take into account when adopting legislation. EU copyright legislation in some areas surpasses the minimum requirements established by international treaties. The Berne Convention, the TRIPS Agreement and the WIPO Copyright Treaty do not recognise the *sui generis* protection of databases provided by the EU Copyright Directive. On international level databases are only protected by copyright. Therefore potential legislative changes concerning the protection of *sui generis* databases would not go against obligations that EU has under international law. In case EU wanted to adopt legislative changes concerning copyright exceptions and limitations, these legislative changes would have to be in compliance with the three-step test incorporated into international treaties and interpreted by the WTO Dispute Settlement Body. The narrow interpretation of the three-step test provided by the WTO Panel has raised concerns – many consider this to have a paralysing effect on the development of copyright exceptions as well as harming the public interest in the digital environment.

EU and US have under international law uniform obligations concerning copyright. However, the two copyright systems vary considerably. US copyright recognises the fair use doctrine that instructs the court to weigh the case in the light of the purpose of copyright, whereas European courts are expected to only follow the statutory regulations. In addition, the

¹⁸⁸ *Editions du Seuil et autres c Google Inc et France*. Tribunal de grande instance de Paris 3ème chambre, 2ème section Jugement du 18 décembre 2009. Available at:

http://www.legalis.net/spip.php?page=jurisprudence-decision&id_article=2812 (24.04.2014).

¹⁸⁹ B. P. Hugenholtz, M. Senftleben. Fair Use in Europe: In Search of Flexibilities. Amsterdam: November 2011, p 6. Available at: <http://www.ivir.nl/publications/hugenholtz/Fair%20Use%20Report%20PUB.pdf> (23.04.2014).

¹⁹⁰ *Editions du Seuil et autres c Google Inc et France*.

US does not recognise the *sui generis* protection of databases. This indicates that international treaties leave the contracting parties sufficient freedom to decide on the structure and proper functioning of their respective copyright systems.

The comparison of US and European case-law seems to suggest that despite the uniform international standards the two systems need to abide by, the outcome of similar litigations can considerably vary depending on whether it is heard before a US or European Court. The recent US case-law also indicates that in comparison to the European copyright system the US system is more favourable towards the adoption of technologies that make use of copyrighted works.

Taking into consideration that in some areas EU copyright law suppresses the minimum standards provided by international treaties and that the much different US common law copyright system, also complies with international law it can be concluded that EU has under international law several options for making changes to its copyright legislation.

IV POTENTIAL CHANGES TO EU COPYRIGHT LEGISLATION

The previous chapter showed that international copyright law provides EU several options for making changes to its copyright legislation. In case EU was to introduce copyright exceptions or limitations these would have to comply with the international three-step test. The following chapter concentrates on legislative proposals. The chapter explores whether the legislative proposals solve issues related to the automated processing of works and at the same time comply with the international three-step test. Three proposals have been chosen that represent different types of amendments to the current EU copyright system. In addition, these proposals have also been chosen with the aim of covering the different types of problems associated with the automated processing of works. First, the Max Planck Institute proposal is explored that proposes changes to the current list of copyright exceptions and limitations. Subsequently two legislative proposals put forward by the Wittem Group are analysed. The first one proposes the introduction of a compulsory-licensing type of copyright limitation and the second one promotes the adoption of a flexible copyright limitation.

4.1 The Max Planck Institute Proposal

4.1.1 Outline of the Proposal

Members of the Max Planck Institute for Intellectual Property, Competition and Tax Law have proposed changes to the existing system of exceptions and limitations (hereinafter the Max Planck Institute proposal). In their view legislative changes are necessary to improve the conditions of production and dissemination of scientific information. For this end they propose the revision of Article 5(3) of the InfoSoc Directive. Together with the amended wording of the article the Max Planck Institute proposal also advocated for three additional changes to the EU copyright legislation. Firstly, the proposed limitation should apply to both, commercial and non-commercial research.¹⁹¹ Secondly, the revised limitation should be made mandatory to Member States.¹⁹² Thirdly, in order to diminish disparities between legal frameworks that are closely linked in the information society, exceptions and limitations

¹⁹¹ R. M. Hilty, S. Krujatz, B. Bajon, A. Früh, A. Kur, J. Drexl, C. Geiger, N. Klass. European Commission – Green Paper: Copyright in the Knowledge Economy, p 10.

¹⁹² R. M. Hilty, et al. European Commission – Green Paper: Copyright in the Knowledge Economy, p 10.

provided under copyright should be extended to the *sui generis* protection of databases.¹⁹³ This would require making changes to the current Database Directive. The Max Planck Institute proposal was put forward with the aim of enhancing scientific research – according to the proposal it would replace the current scientific research copyright limitation listed in the InfoSoc Directive. It is therefore assumed that the acts permitted in the proposal are permitted for scientific research purposes only.

According to the Max Planck Institute proposal the amended article would read:

Article 5 (3) Member States shall provide for peremptory exceptions or limitations to the rights provided for in Articles 2 and 3 in following cases: (b) with respect to necessary acts of reproduction of scholarly works for the purposes of long-term storage, archiving, data extraction, linking and the like.

4.1.2 Compliance with the Three-Step Test

In case EU was to adopt the Max Planck Institute proposal it would have to comply with the obligations that EU has under international law, namely the three-step test. With regard to the first step of the three-step test, the WTO Panel holds the opinion that copyright limitations must be clearly defined, but there is no need to identify each and every possible situation in which the exception could apply. Sufficient legal certainty is guaranteed if the exception is known and particularised. In addition, the exception must be limited in its field of application.¹⁹⁴ The Max Planck Institute proposal allows reproduction of scholarly works “[...] for the purposes of long-term storage, archiving, data extraction, linking and the like.” Different purposes for which reproductions can be made are enumerated in the proposal. The list of permitted purposes ends with the words “the like”. According to the WTO Panel report there is no need to identify all the situations in which the exception could apply. This appears to indicate that a partially open-ended list of purposes is in compliance with the first step. One aspect that could make the compliance with the first step questionable is the fact that the Max Planck Institute proposal does not differentiate between commercial and non-commercial purposes thereby enlarging the field of application of the proposal. However, taking into consideration that the Max Planck Institute proposal only deals with reproduction of scientific works the field of application of the proposal is still sufficiently limited.

¹⁹³ R. M. Hilty, et al. European Commission – Green Paper: Copyright in the Knowledge Economy, p 11.

¹⁹⁴ WTO. US – Section 110(5), paragraphs 6.108, 6.109.

With regard to the second step of the three-step test the WTO Panel stated that there is a conflict with the normal exploitation of the work if the exempted uses of works enter into economic competition with the ways that the right holders normally extract economic value and thereby deprive right the holders of significant or tangible commercial gains.¹⁹⁵

The narrow interpretation of the WTO Panel could pose problems with regard to “data extraction” mentioned in the Max Planck Institute proposal. At the TDM stakeholder dialogue it was demonstrated that standard licenses of some scientific publishers expressly forbid “[...] any use of data mining, robots or similar data gathering and extraction tools [...]”¹⁹⁶ It was less clear whether licensing schemes enabling automated processing of works are presently a common practice. In addition, there is lack of consensus on EU level whether right holders should be able to extract economic value from enabling automated processing (data extraction) of works. It appears that in EU right holders do not “normally extract economic value” from copyright by enabling automated processing of works. J. Ginsburg has pointed out that according to the interpretation of the WTO Panel the “normal exploitation of the work” is ever expanding – whatever use of works can become “normal exploitation of the work” in case right holders have effective licensing schemes in place.¹⁹⁷ In the context of the debate concerning the legal framework for automated processing of works it could mean that in case legislative changes were delayed and additional licensing became a common practice it could in the end be too late for making legislative changes that comply with the WTO Panel interpretation of the three-step test. With effective licensing schemes in place enabling automated processing of copyrighted works would have become “normal exploitation of the work.”

In relation to the third step the WTO Panel expressed the view that the prejudice to the legitimate interests of the right holder is unreasonable if an exception causes or has the potential to cause an unreasonable loss of income to the copyright holder.¹⁹⁸ As licensing schemes for enabling automated processing of works do not appear to be a common practice in EU the Max Planck Institute proposal is likely not causing an unreasonable loss of income to right holders. The Max Planck Institute proposal does not appear to unreasonably prejudice the rights of right holders. The Max Planck Institute proposal may be problematic with regard of the first and second step of the three-step test. It can, however, be concluded that it most likely complies with the international three step test.

¹⁹⁵ WTO. US – Section 110(5), paragraph 6.183.

¹⁹⁶ R. Mounce. Content Mining. Slide 9. Available at: https://ec.europa.eu/licences-for-europe-dialogue/sites/licences-for-europe-dialogue/files/TDM-researcher_0.pdf (20.04.2014).

¹⁹⁷ J. C. Ginsburg. Toward Supranational Copyright Law?, p 14.

¹⁹⁸ WTO. US – Section 110(5), paragraph 6.229.

4.1.3 Relevance and Scope

According to the Max Planck Institute proposal reproduction of scholarly works is permitted for the purpose of “data extraction”. The term “data extraction” is likely sufficiently broad and flexible to accommodate the production of copies of works in the course of automated processing. Even if “automated processing“ did not fall under the concept of data extraction the proposal is nevertheless applicable due to the open list of purposes for which the reproduction of scholarly works is permitted. The open-ended list of possible purposes of reproduction makes the proposed wording of the article forward-looking and technology neutral, thereby acknowledging that potential future uses of copyrighted works may presently be unknown.

The Max Planck Institute proposal does not differentiate between commercial and non-commercial research. Taking into consideration that the line between commercial and non-commercial research is often blurred this serves as an advantage, guaranteeing that a wider array of research projects are covered.

The Max Planck Institute proposal only allows reproduction of scholarly works and this could be considered as its drawback. Automated processing of works is often not concerned with the original purpose of the copyrighted work – for example it is irrelevant for the composition of a knowledge graph whether the “knowledge” is extracted from works of fiction or works of scientific research. Stakeholders may have legitimate interests for processing works other than scholarly works.

In the first chapter of this work it was concluded that automated processing of works is likely to fall under the scope of Article 5(1) (copyright limitation for temporary acts of reproduction) and Article 5(3) (a) (copyright limitation for scientific research) but legal uncertainties remain. Adoption of the Max Planck Institute proposal would reduce legal uncertainties concerning scientific research – the Max Planck proposal confirms that “data extraction” for the purpose of scientific research is allowed. The Max Planck Institute does not clarify the potential applicability of Article 5(1) – adoption of a copyright limitation concerning scientific research does not necessarily forbid automated processing for other purposes that could fall under the scope of Article 5(1).

The Max Planck Institute proposal acknowledges that in order to make the proposal effective the limitation should be extended to the *sui generis* protection of databases. In the first chapter it was concluded that *sui generis* protection could pose problems in the context of automated processing of works. In case a limitation was introduced into the Database

Directive it should also be mandatory – database makers should not have the right to over-rule the limitation by contract.

It can be concluded that automated processing of copyrighted works falls under the Max Planck Institute proposal and the proposal complies with the three-step test. The proposal only enables automated processing of scientific works for scientific research purposes which considerably limits its scope of application. On the other hand the Max Planck Institute proposal does not differentiate between commercial and non-commercial research thereby meeting the needs of a wider array of stakeholders. In order to render the Max Planck Institute proposal effective, a similar exception should be introduced to the Database Directive.

4.2 Wittem Group European Copyright Code

In 2010 a group of academics proposed the European Copyright Code that in their view “[...] might serve as an important reference tool for future legislatures at the European and national levels”¹⁹⁹. The Code is said to be “[...] the result of the Wittem Project that was established in 2002 as a collaboration between copyright scholars across the European Union concerned with the future development of European copyright law”²⁰⁰. The Code is composed of five chapters: Works, Authorship and ownership, Moral rights, Economic rights and Limitations. The Code proposes a new and entirely different system of copyright limitations compared to those listed in the InfoSoc Directive. The proposed Copyright Code addresses the copyright protection of works as well as the protection of databases – according to Article 1.1.(2) (a) and (h) of the Code written and spoken words as well as databases are considered as works (the Code therefore appears to abolish the *sui generis* protection of databases). The Wittem Group Copyright Code proposes the following list of copyright limitations:

Art. 5.1 Uses with minimal economic significance [...]

Art. 5.2 Uses for the purpose of freedom of expression and information [...]

Art. 5.3 – Uses Permitted to Promote Social, Political and Cultural Objectives [...]

Art. 5.4 – Uses for the purpose of enhancing competition. (1) [...] (2) Uses of news articles, scientific works, industrial designs, computer programs and databases are permitted without

¹⁹⁹ L. Bently, T. Dreier, R. Hilty, P. B. Hugenholtz, A. Quaedvlieg, A. Strowel, D. Visser et al. European Copyright Code. Available at: <http://www.copyrightcode.eu/index.php?websiteid=3> (02.05.2014).

²⁰⁰ European Copyright Code website. Introduction 26.04.2010. Available at: <http://www.copyrightcode.eu/index.php?websiteid=1> (02.05.2014).

authorisation, but only against payment of a negotiated remuneration, and to the extent justified by the purpose of the use, provided that: (i) the use is indispensable to compete on a derivative market; (ii) the owner of the copyright in the work has refused to license the use on reasonable terms, leading to the elimination of competition in the relevant market and (iii) the use does not unreasonably prejudice the legitimate interests of the owner of the copyright in the work.

Art. 5.5 – Further limitations. Any other use that is comparable to the uses enumerated in art. 5.1 to 5.4(1) is permitted provided that the corresponding requirements of the relevant limitation are met and the use does not conflict with the normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author or rightholder, taking account of the legitimate interests of third parties.

In following sections Article 5.4(2) and Article 5.5 of the Wittem Group Copyright Code are analysed in the light of the current debate concerning the adaption of a proper legal framework for automated processing of works. The followings sections attempt to explore whether the adoption of either Article 5.4(2) or Article 5.5 would on EU level solve issues related to the automated processing of copyrighted works.

4.3 Compulsory Licensing Type of Copyright Limitation

4.3.1 Outline of the Proposal

The general rule incorporated into the proposed Article 5.4(2) (hereinafter the first Wittem Group proposal) proposal is that the right holder has no right to deny the use of works and databases as long as he receives a reasonable remuneration. In order to have the right to use works without the permission the three conditions listed in Article 5.4(2) need to be fulfilled.

The three conditions incorporated into the limitation are a modification of the international “three step test” and the “exceptional circumstances test” developed in CJEU case-law in the field of competition law. The first Wittem Group proposal has not incorporated the exact wording of the “exceptional circumstances test”;²⁰¹ however the

²⁰¹ In the *Microsoft* case the Court of First Instance stated that the following circumstances, in particular, must be considered to be exceptional: 1) the refusal relates to a product or service indispensable to the exercise of a particular activity on a neighbouring market; 2) the refusal is of a such a kind as to exclude any effective competition on that neighbouring market; 3) the refusal prevents an appearance of a new product for which there is potential consumer demand. Case T-201/04 *Microsoft*, paragraph 332.

proposal is in compliance with the test as all the principles developed by CJEU have been integrated. The proposal is in fact a less restrictive version of Article 102 of TFEU as the preconditions of the application of Article 102 – dominant position and effect on trade between member states – are not mentioned in the proposal. In comparison to Article 102 TFEU the first Wittem Group proposal appears to have a wider scope of application.

4.3.2 Compliance with the Three-Step Test

In case EU was to adopt a copyright limitation similar to that put forward by the Wittem Group in Article 5.4(2) it would have to comply with the international three-step test. With regard to the first step the WTO Panel holds the opinion that copyright limitations must be clearly defined, but there is no need to identify each and every possible situation in which the copyright exception could apply. Sufficient degree of legal certainty is guaranteed if the exception is known and particularised. In addition the exception must be limited in its field of application or be exceptional in its scope.²⁰² The first Wittem Group proposal only allows use of works without the permission of right holder when the three conditions enumerated in the proposal are fulfilled. Due to these three conditions the Wittem Group proposal is clearly defined and its field of application is limited. The proposal is thus in compliance with the first step of the three-step test. It appears that even if the scope of the first Wittem Group proposal was widened to include all types of works it would nevertheless comply with the three-step test due to the three conditions enumerated in the proposal.

With regard to second and third step the WTO Panel has stated that there is a conflict with the normal exploitation of the work if the exempted uses enter into economic competition with the ways that right holders normally extract economic value from the work and thereby deprive them of significant or tangible commercial gains²⁰³ According to the WTO Panel the prejudice to the legitimate interests is unreasonable if an exception causes or has the potential to cause an unreasonable loss of income to the copyright holder.²⁰⁴ The first Wittem Group proposal only allows uses of works without the permission of the right holder in case the use is indispensable to compete on a derivative market. The proposal thereby attempts to reduce the chance that the allowed uses enter into economic competition with the ways that the right holders normally extract economic value. In addition, uses without the

²⁰² WTO. US – Section 110(5), paragraphs 6.108, 6.109.

²⁰³ WTO. US – Section 110(5), paragraph 6.183.

²⁰⁴ WTO. US – Section 110(5), paragraph 6.229.

permission of the right holder are only allowed against remuneration. This should guarantee that right holders are not deprived of significant commercial gains nor experience an unreasonable loss of income. It appears that the first Wittem Group proposal complies with the international three-step test.

4.3.3 Relevance and Scope

The Wittem Group proposal is broad enough to accommodate the notion of “automated processing of copyrighted works.” The proposal does not specify the types of “uses” that are permitted suggesting that any type of use, including automated processing, is permitted. Adoption of the first Wittem Group proposal would mean that a party interested in automated processing of works can use works without the permission of the right holder in situations where conditions of the “exceptional circumstances test” developed by CJEU are fulfilled and CJEU would grant a compulsory license.

The first Wittem Group proposal enumerates the types of works that can be used. The list is more comprehensive compared to the proposal of Max Planck Institute proposal that only allowed reproduction of scientific works. The first Wittem Group proposal nevertheless leaves an array of works uncovered (for example, textual works of fiction, visual arts such as paintings, drawings etc). Author of this paper holds the opinion that in case a copyright limitation that allows automated processing of works was adopted it should provide a general rule with regard to all types of works. In case there is a need to differentiate between the different types of works this can be done by varying the amount of remuneration paid for the use of work.

One advantage of the first Wittem Group proposal is that the proposal does not differentiate between commercial and non-commercial uses – in both cases use of works without the permission of the right holder is permitted when the three conditions mentioned in the limitation are fulfilled. This considerably increases the scope of application of the proposal.

According to the first Wittem Group proposal also uses of databases are allowed when the three conditions are met. The general rule is that the right holder has no right to deny the use of works and databases as long as he receives a reasonable remuneration. Database makers and database users are not always equal market-players and database makers may arbitrarily refuse access to the contents of the database, thereby hampering competition and innovation. Adoption of the first Wittem Group type of limitation would level the playing

field as the right holders would be aware that at the end of the day they are obliged to grant access to the contents of a database. In comparison with the Max Planck Institute proposal the first Wittem Group proposal solves more effectively issues related to the access to works. The first Wittem Group proposal provides a general rule for access and does not differentiate between scientific research and non-scientific research purposes.

Developing and maintaining a database that enables effective automated processing of its contents may in some cases incur extra costs. In this light, it is justified that a “reasonable” remuneration is paid to database owners. A parallel can be drawn with the Directive on re-use of public sector information²⁰⁵ that also permits charging a fee for supplying and allowing re-use of documents. However, the fee has a ceiling – according to Article 6 of the Directive “where charges are made, the total income from supplying and allowing re-use of documents shall not exceed the cost of collection, production, reproduction and dissemination, together with a reasonable return on investment [...]”²⁰⁶ If right holders incur extra costs related to the automated processing these extra costs should be remunerated. It can be concluded that the first Wittem Group proposal is broad enough to accommodate the notion of “automated processing of works” and complies with the international three-step test. The first Wittem Group proposal would solve legal uncertainties related to the right of reproduction as well as issues with regard to access of works. It would considerably level the playing field as database makers know that at the end of the day they are obliged to grant access (provided that the three conditions listed in the proposal are fulfilled). As the Wittem Group first proposal does not differentiate between commercial and non-commercial uses of works it has a wide scope of application. This proposal appears to be a suitable type of legislative change for levelling the playing field in case EU decided not to go forward with a full reform of EU copyright legislation.

4.4 Flexible Copyright Limitation

4.4.1 Rationale behind Proposals Introducing Flexibility to EU Copyright System

The proponents of introducing a flexible or a fair use type of clause into EU copyright legislation are of the opinion that “[m]aintaining a closed list of copyright exceptions is increasingly difficult in a world of rapid and unpredictable technological development, and

²⁰⁵ Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information. OJ L 345/90, 31.12.2003. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:345:0090:0096:EN:PDF> (03.05.2014).

²⁰⁶ Article 6 of the Directive on the re-use of public sector information.

hard to reconcile with a generally recognized need to create technologically neutral copyright norms.”²⁰⁷ They argue that “whereas legislatures of the 19th and early 20th century could still anticipate and adequately respond to the main technological changes that required modification of the law, the accelerating pace of technological change in the early 21st century no longer allows such legislative foresight.”²⁰⁸ M. Senftleben and P. B. Hugenholtz hold the opinion that EU legislation needs “[...] a statutory system of limitations and exceptions that guarantees both a level of legal security and fairness, by combining relatively precise norms with sufficient flexibility to allow a fair outcome in hard and/or unpredictable cases.”²⁰⁹ They do not advocate for the implementation of the US fair-use clause but express the view that international three-step test can serve as a model for fair-use factors.²¹⁰ Others propose that in addition to the present catalogue of exceptions and limitations EU law should also contain a provision that allows the application of exceptions and limitations in cases that are similar to those described in the present list of exceptions and limitations.²¹¹ M. Senftleben has also underlined that the European fair-use does not necessarily have to be a use free of charge (as it is in the US).²¹²

4.4.2 Outline of the Proposal

Article 5.5 of the Wittem Group Copyright Code (hereinafter the second Wittem Group proposal) allows the application of exceptions and limitations by analogy – uses that are comparable to those enumerated in Articles 5.1 to 5.4(1) of the Wittem Group Copyright Code are permitted. Proponents of the flexible (analogy based) copyright limitation hold the opinion that alongside the present catalogue of copyright limitations a more flexible limitation should be incorporated into EU copyright legislation.

²⁰⁷ P. B. Hugenholtz, M. Senftleben. Fair Use in Europe: In Search of Flexibilities. Amsterdam November 2011, p 4. Available at: <http://www.ivir.nl/publications/hughholtz/Fair%20Use%20Report%20PUB.pdf> (23.04.2014).

²⁰⁸ P. B. Hugenholtz, M. Senftleben. Fair Use in Europe, p 7.

²⁰⁹ P. B. Hugenholtz, M. Senftleben. Fair Use in Europe, p 9.

²¹⁰ Martin Senftleben. Overprotection and Protection Overlaps in Intellectual Property Law – The Need for Horizontal Fair Use Defences, p 14.

²¹¹ Anette Kur. Of Oceans, Islands and Water – How Much Room for Exceptions and Limitations under the Three-Step Test? – Richmond Journal of Global Law & Business 2009 Vol 8:3, p 298.

²¹² Martin Senftleben. Overprotection and Protection Overlaps in Intellectual Property Law – The Need for Horizontal Fair Use Defences, p 3.

4.4.3 Compliance with the Three-Step Test

In case EU was considering adopting a copyright limitation similar to the second Wittem Group proposal it would have to comply with the international three-step test. In relation to the first step of the three-step test the WTO Panel has indicated that copyright limitations must be clearly defined, but there is no need to identify each and every possible situation in which the exception could apply. Legal certainty is guaranteed if the exception is known and particularised. In addition the exception must be limited in its field of application.²¹³ J. Ginsburg has expressed the view that the second Wittem Group proposal is “exceptionally open-ended”²¹⁴ and therefore not in compliance with the first step of the three-step test. The second Wittem Group proposal allows the application of copyright limitations by analogy in cases that are comparable to the enumerated in Article 5 of the InfoSoc Directive. Taking into consideration that the current list of copyright limitations is exhaustive and limitations are narrowly worded the circle of permissible acts appears actually rather confined. However by leaving judges the freedom to apply copyright limitations by analogy the list of permissible acts of reproduction is in fact left open. This makes it somewhat difficult to argue that the exception is limited in its field of application – it is probable that the second Wittem Group proposal might not comply with the first step of the three-step test.

With regard to the second step the WTO Panel stated that there is a conflict with the normal exploitation of the work if the exempted uses enter into economic competition with the ways that the right holders normally extract economic value and thereby deprive right holders of significant or tangible commercial gains.²¹⁵ Taking into consideration that the second Wittem Group proposal enables the application of copyright limitations by analogy the final circle of permitted uses of works is to be defined by courts. Provided that the statutory copyright limitation and the copyright limitation applied by analogy are similar enough the proposed exception should not conflict with the normal exploitation of the work. However, in the end it is the court that decides whether certain uses of works are sufficiently similar or not. The same applies to the third step of the three-step test. The WTO Panel expresses the view that the prejudice to the legitimate interests of the right holder is unreasonable if an exception causes or has the potential to cause an unreasonable loss of income to the copyright holder.²¹⁶ Whether or not the second Wittem Group copyright exception causes an unreasonable loss of

²¹³ WTO Panel. US – Section 110(5) of the US Copyright Act, paragraphs 6.108, 6.109.

²¹⁴ J. Ginsburg. European Copyright Code – Back to First Principles (with Some Additional Detail). – Journal of the Copyright Society of the USA 2011 Vol 58 No 3, p 26. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1747148 (03.05.2014).

²¹⁵ WTO. US – Section 110(5) of the US Copyright Act, paragraphs 6.183.

²¹⁶ WTO. US – Section 110(5) of the US Copyright Act, paragraph 6.229.

income depends in the end on how narrow or broad is the interpretation of the proposal by courts.

The second Wittem Group proposal does not appear to comply with the narrow interpretation of the WTO Panel of the first step of the three step test. In Chapter III it was described that US copyright law presently contains a more flexible copyright limitation – the fair use defence. The compliance of the fair use defence with the three step test has officially not been under question. In this light it could be discussed, whether and to what extent the WTO Panel interpretation needs be followed in case EU decided to reform its copyright legislation. Should the potential adoption of a flexible copyright limitation be ruled out on the grounds that it does not comply with the WTO Panel narrow interpretation of the three-step test; or does the international copyright law in fact provide EU more manoeuvring-room?

4.4.4 Relevance and Scope

Unlike Article 5.5 proposed by the Wittem Group the present Article 5(5) of the InfoSoc Directive does not allow the application of copyright limitations by analogy.

In case Article 5.5 in the wording put forward by the Wittem Group was incorporated into the InfoSoc Directive courts would have the opportunity to consider the permissibility of uses of copyrighted works that are not presently listed in the InfoSoc Directive. This would allow European Courts to act somewhat similarly to US courts when the latter apply the fair use doctrine.²¹⁷

In case a legislative change similar to that put forward by the Wittem Group was adopted automated processing of copyrighted works needs to be “comparable” to uses enumerated in Article 5 of the InfoSoc Directive in order to be considered as permissible. In Chapter I of this paper it was concluded that provided that the five conditions developed by CJEU in *Infopaq I* and *Infopaq II* are followed “automated processing” of copyrighted works could fall under Article 5(1) of the InfoSoc Directive. The conditions developed by the Court are strict and likely do not fulfil the needs of all parties interested in automated processing of works. Adoption of Article 5.5 in the wording similar to that proposed by the Wittem Group would widen the scope of application of Article 5(1) of the InfoSoc Directive as courts have the right to consider the legality of uses of copyrighted works “comparable” to that mentioned in Article 5(1) of the Directive. The same would apply with regard to the scientific research

²¹⁷ G. Mazziotti. Copyright in the EU Digital Single Market. Report of the CEPS Digital Forum. Brussels: June 2013, p 79. Available at: <http://www.ceps.eu/book/copyright-eu-digital-single-market> (03.05.2014).

copyright limitation. The wider scope of application of Article 5(1) and Article 5(3) (a) would facilitate automated processing of works.

Adoption of a copyright limitation similar to the Wittem Group Article 5.5 does not, however, solve issues related to the access to works. In order to settle issues related to access to works legislative changes need to be made to the Database Directive or alternatively protection of databases needs to be brought under the scope of InfoSoc Directive. In case new limitation to *sui generis* right is inserted into the Database Directive it should be made mandatory for database owners.

The second Wittem Group proposal accommodates the notion of “automated processing of works”; however it does not appear to be in compliance with the narrow interpretation of the three-step test delivered by the WTO Panel. Adoption of a legislative change similar to the second Wittem Group proposal would not solve issues related to access to works for the purpose of automated processing – for this end amendments to the Database Directive are also required.

4.5 Conclusions

EU has currently not yet decided how and when to go forward with EU copyright reform. Whether and how to proceed is in the end a political decision that the European Commission has to make.

Chapter IV analysed three different possible changes to EU legislation in the light of adopting a legal framework that enables automated processing of works. It can be concluded that there exist legislative proposals that solve issues related to the automated processing of works and at the same time comply with the obligations that EU has under international law.

The Max Planck Institute proposal, that proposed amending the current list of copyright limitations, accommodated the notion of “automated processing” of works. The Max Planck Institute proposal uses the term “data extraction” that is sufficiently broad to accommodate “automated processing” of works including “text and data mining”. Only allowing data extraction of scholarly works for research purposes considerably limits the scope of the Max Planck Institute proposal. However, the limitation does not differentiate between commercial and non-commercial research that enables meeting the needs of a wider array of stakeholders. For the Max Planck Institute proposal to render effective a similar limitation needs to be inserted into the Database Directive.

The Wittem Group compulsory licensing type of copyright limitation (the first Wittem Group proposal) accommodates the notion of automated processing of works and does not differentiate between commercial and non-commercial uses of the work, which considerably widens its scope of application. The guiding principle incorporated into the first Wittem Group proposal is that the right holder has no right to deny the use of the works and databases as long as he receives a reasonable remuneration. In comparison to the other two proposals the first Wittem Group proposal appears to most effectively solve issues related to access to works. Similarly to the Max Planck Institute proposal the first Wittem Group proposal leaves an array of works uncovered (for example, fictional works, works of visual arts – drawings, paintings etc).

The second Wittem Group proposal (flexible copyright limitation) allows the application of copyright limitations by analogy. In the first chapter it was demonstrated that automated processing of works might presently fall under the scope of scientific research and temporary acts of reproduction copyright limitations. Incorporation of the second Wittem Group proposal into the InfoSoc Directive would widen the scope of application of the present list of copyright limitations, thereby facilitating automated processing of works. The adoption of the second Wittem Group proposal does not, however, solve issues related to access to works. For this end amendments to the Database Directive are also required.

The Max Planck Institute proposal and the first Wittem Group proposal appear to comply with the international three step test. The second Wittem Group proposal, however, appears to be problematic with regard to the first step of the three-step test. It should nevertheless be noted that the US copyright system (that is bound by the same international obligations) recognises a flexible copyright limitation. In this light the possible adoption of a flexible copyright limitation on EU level should not immediately be ruled out.

Based on the analyses of Chapter IV following general remarks can be made with regard to potential legislative changes that aim to solve issues related to the automated processing of works:

- Legislative changes with the purpose of solving issues concerning automated processing of works require addressing questions related to the right of reproduction as well as questions related to access to works. For this end the InfoSoc Directive as well as the Database Directive need to be amended;
- Copyright or the *sui generis* right limitations inserted into the Database Directive should be made mandatory to right holders – right holders should not be able to over-rule the limitation by contract;

- Copyright limitation enabling automated processing of works should not differentiate between different types of works. Automated processing of works is often not concerned with the original purpose of the copyrighted work. Therefore, a general rule covering all types of works should be provided. In case differentiation between uses of different types of works is deemed as necessary this can be implemented by enabling uses of certain types of works only against remuneration;
- Copyright limitation enabling automated processing of works needs to be forward looking in order to keep pace with development of technology. EU Commission has mainly been discussing issues related to text and data mining – one type of automated processing. There is no guarantee that text and data mining is not an outdated technique in a few years time. In this light EU could consider more abstract wording of copyright limitations such as “data analytics”, “data extraction”, “automated processing” etc;
- In case right holders incur extra costs related to automated processing of works, these extra costs should be remunerated;
- Legislative changes should aim to level the playing field. The guiding principle should be that one should not have the right to prohibit automated processing of works. A compulsory licensing type of copyright limitation can be incorporated that can be relied upon when market players are unable to reach a consensus;
- Copyright limitations enabling automated processing for free as well as against remuneration in principle appear to comply with the three step test. In case a copyright limitation against no remuneration is considered this should be limited in scope in order to guarantee compliance with the three-step test. Copyright limitations that enable automated processing of works only against remuneration can have a wider scope;
- The current legal uncertainties concerning the compliance of automated processing of copyrighted works with the right of reproduction could be solved by adopting a copyright limitation that enables application of copyright limitations by analogy. It should, however, be noted that the compliance of a limitation that enables application of copyright limitations by analogy might not comply with the three-step test;
- When legislative proposals are considered they should be weighed in the light of the Infosoc Directive, the Database Directive and EU competition law in order to meet the goals set before EU copyright law.

CONCLUSION

Automated processing of works that entails the production of copies of works is not presently explicitly defined or regulated in EU legislation and its current legal standing is not entirely clear. Legal uncertainties reduce the willingness to develop technologies that are based on making use of copyrighted works and this can negatively impact the competitiveness of EU. Automated processing of copyrighted works is a good example of developments in the field of technology that result in the need to establish a proper legal framework. The absence of suitable regulation may in turn cause the development to slow down.

On EU level, the automated processing of works falls in the scope of the InfoSoc Directive, the Database Directive and to a limited extent under EU competition law. The most important is the InfoSoc Directive that harmonises copyright and the related rights on EU level. According to Article 2 of the Directive, the right of reproduction belongs to the author. Works can be reproduced without the consent of the author and only in certain special cases listed in the InfoSoc Directive. It appears that automated processing of works for the purpose of non-commercial scientific research might fall under the scope of copyright limitation for scientific research. The recent CJEU case-law also seems to suggest that in certain cases automated processing of works can fall under the scope of copyright limitation for temporary acts of reproduction (Article 5(1) of the InfoSoc Directive). In rulings *Infopaq I* and *Infopaq II* CJEU developed five conditions that need to be fulfilled for Article 5(1) of the InfoSoc Directive to apply. Although CJEU rulings provide interested parties ground for arguing that their actions fall under the scope of Article 5(1), it could hardly be claimed that CJEU case-law provides sufficient legal certainty.

In addition to legal uncertainties associated with the right of reproduction, interested parties may also find it difficult to have access to works for the purpose of automated processing. Often works suitable or worth of processing are stored in databases that are protected by copyright or the *sui generis* right. According to the EU Database Directive lawful users of a database are not allowed to extract substantial parts of a database without the permission of a database maker. For example, lawful user of a genetic engineering journals database can download a few journal articles, but downloading a bigger portion (e.g. all the articles containing the word “gene”) presumably requires the permission of a database maker. The above mentioned principle proves to be problematic with regard to automated processing of works – often scientific research and development of technologies that are based on

making use of works require processing of works in bulk. In addition, the EU Database Directive provides database makers broad right to decide on the term of use of the database – database makers can by contract deny lawful users the right to extract substantial parts of the contents of a database, even if a user was willing to pay for licence.

EU competition law instruments, such as compulsory licensing, could in certain cases mitigate the negative effects related to access to works. However, the proceedings are lengthy and are in principle designed for solving individual cases which does not guarantee sufficient legal certainty.

Since the end of 1980s, that marks the beginning of the harmonisation of Member States' copyright legislation, the goal of harmonised EU copyright legislation has been *inter alia* the promotion of economic growth and competitiveness of EU. To date, the EU Commission has primarily dealt with text and data mining (one type of automated processing of works). At the end of year 2012 EU Commission initiated the stakeholder dialogue for discussing innovative licensing solutions to text and data mining of scientific works for the purpose of non-commercial research. Many stakeholders present at the stakeholder dialogue considered EU Commission's approach as flawed – in their view issues related to text and data mining should not be solved by additional licensing schemes but by adopting relevant copyright exceptions and limitations. In their view additional licensing puts EU scientists at a serious disadvantage compared to their colleagues in US and Asia where legal barriers to text and data mining are lower.

The very limited scope of discussions – text and data mining of scientific works for non-commercial research purposes – may hinder achieving the goals set before EU copyright law. Today's reality is that a greater part of new technologies, tools and services are developed commercially. By leaving commercial entities and commercial research projects entirely outside the EU Commission's radar, the hoped economic growth and innovation may not be achieved. The public consultation on the review of the EU copyright rules may result in changes in EU Commission's plans. It should, however, be noted that legislative review is a lengthy process and its final outcome is yet unclear.

International treaties regulating copyright set the minimum standards of protection that the contracting parties have to take into account when adopting legislation. EU copyright legislation surpasses in some areas the minimum requirements established by international treaties. The Berne Convention, the TRIPS Agreement and the WIPO Copyright Treaty do not recognise the *sui generis* protection of databases provided by the EU Database Directive. On international level databases are only protected by copyright. Potential legislative changes concerning the protection of *sui generis* databases would therefore not violate the obligations

that EU has under international law. In case EU wanted to adopt legislative changes concerning copyright exceptions and limitations, these legislative changes would have to be in compliance with the three-step test incorporated into international treaties and interpreted by the WTO Dispute Settlement Body.

EU and US are bound by the same international treaties dealing with copyright. However, the two copyright systems vary considerably. US copyright legislation recognises the fair use doctrine that instructs courts to weigh the case in the light of the purpose of copyright, whereas European courts are expected to only follow the statutory regulation. In addition, the US does not recognise the *sui generis* protection of databases. This indicates that international treaties leave the contracting parties sufficient freedom to decide on the structure and proper functioning of their respective copyright systems. The comparison of US and European case-law also seems to suggest that despite the uniform international standards that the two systems need to abide by, the outcome of similar litigations can considerably vary depending on whether it is heard before a US or European Court. The recent US case-law also indicates that the US system is more favourable towards technologies making use of copyrighted works.

Taking into consideration that in some areas EU copyright law surpasses the minimum standards provided by international treaties and that the much different US common law copyright system, also complies with international law it can be concluded that EU has under international law several options for making changes to its copyright legislation.

EU has not currently decided how and when to go forward with EU copyright reform. Whether and how to proceed is in the end a political decision that the EU Commission has to make. This paper explored three potential legislative changes in order to determine whether they are suitable for addressing issues related to automated processing of works and at the same time comply with the international three-step test.

The Max Planck Institute proposal, that proposed amending the current list of copyright limitations, accommodated the notion of “automated processing” of works. The Max Planck Institute proposal used the term “data extraction” that is sufficiently broad to accommodate “automated processing” of works including “text and data mining”. The Max Planck Institute proposal only allows data extraction of scholarly works for research purposes which considerably limits its scope. However, the limitation does not differentiate between commercial and non-commercial research that enables meeting the needs of a wider array of stakeholders. For the Max Planck Institute proposal to render effective a similar limitation needs to be inserted into the Database Directive.

The Wittem Group compulsory licensing type of copyright limitation (the first Wittem Group proposal) accommodates the notion of automated processing of works and does not differentiate between commercial and non-commercial uses of the work. The guiding principle of the first Wittem Group proposal is that the right holder has no right to deny the use of works and databases as long as he receives a reasonable remuneration. In comparison to the other two proposals the first Wittem Group proposal appears to most effectively solve issues related to access to works. Similarly to the Max Planck Institute proposal the first Wittem Group proposal leaves an array of works uncovered (such as works of visual arts and textual works other than news articles and scientific works).

The second Wittem Group proposal (flexible copyright limitation) allows the application of copyright limitations by analogy. In the first chapter it was demonstrated that automated processing of works might presently fall under the scope of scientific research and temporary acts of reproduction copyright limitations. Incorporation of the second Wittem Group proposal into the InfoSoc Directive would widen the scope of application of the present list of copyright limitations, thereby facilitating automated processing of works. The adoption of the second Wittem Group proposal does not solve issues related to access to works. For this end amendments to the Database Directive are also required.

The Max Planck Institute proposal and the first Wittem Group proposal appear to comply with the international three step test. The second Wittem Group proposal, however, appears to be problematic with regard to the first step of the three-step test. It should nevertheless be noted that the US copyright system (that is bound by the same international obligations) recognises a flexible copyright limitation. In this light the possible adoption of a flexible copyright limitation on EU level should not necessarily be ruled out.

Based on the analysis of legislative proposals general remarks can be made with regard to potential legislative changes addressing issues associated with automated processing of works. Legislative changes need to address questions related to the right of reproduction as well as questions related to access to works. This requires changes to the InfoSoc Directive as well as the Database Directive. In order to render limitations inserted into the Database Directive effective they need to be compulsory with regard to database makers – database makers should not be able to over-ride the limitation by contract. In addition, the legislative changes should aim at levelling the playing field. A compulsory licensing type of copyright limitation could be incorporated into EU legislation that can be relied upon when market players are unable to reach a consensus (for example, concerning access to works). However, in case right holders incur extra costs related to automated processing of works, these extra costs should be remunerated.

Copyright limitation enabling automated processing of works should not differentiate between different types of works. Automated processing of works is often not concerned with the original purpose of the copyrighted work. In case it is necessary to differentiate between uses of various types of works this can be done by enabling uses of certain types of works only against remuneration.

Copyright limitation enabling automated processing of works needs to be forward looking and technology neutral in order to keep pace with development of technology. EU Commission is today mainly discussing issues related to text and data mining – one type of automated processing. There is no guarantee that text and data mining is not an outdated technique in a few years time. In this light EU could consider more abstract wording of copyright limitations such as “data analytics”, “data extraction”, “automated processing” etc.

The Public Consultation on the review of the EU Copyright rules was closed in March 2014. The results of the Public Consultation are not available at the time of writing of this paper. EU Commission’s future plans with regard to solving issues related to automated processing of works should become clearer in the near future.

Automated processing with regard to the right of reproduction of copyrighted works complies in certain special cases with EU legislation. It appears that automated processing of works conducted for the purpose of non-commercial research is likely to fall under the scientific research copyright limitation provided in the InfoSoc Directive. In addition, CJEU recent case-law appears to suggest that non-scientific research projects involving automated processing of works could fall under the scope of the copyright limitation for temporary acts of reproduction, provided that the five conditions developed by the CJEU are followed. Extracting substantial parts of the contents of a database for the purpose of automated processing of works is not permitted. With regard to EU database protection rules it can be concluded that automated processing is not in compliance with EU legislation.

EU Commission’s actions to date have not been sufficient for meeting the goals set before EU copyright law. However, the public consultation on the review of EU copyright rules initiated by the EU commission indicates that copyright issues are on EU Commission’s agenda.

None of the legislative proposals analysed in this paper are perfectly suitable for solving issues related to the automated processing of works. At the same time they point to possible directions that EU could consider when deciding whether and how to go forward. Presently all roads before Europe are still open.

Autoriõigusega kaitstud teoste masintöötlamine Euroopa Liidus

RESÜMEE

Käesoleva töö fookuses on autoriõigusega kaitstud teoste masintöötlamisega seotud õiguslikud küsimused. Mõistet autoriõigusega kaitstud teoste „masintöötlamine“²¹⁸ Euroopa Liidu seadusandlus täpselt ei defineeri ning käesoleval hetkel ei ole päris selge, kas ja mil määral autoriõigusega kaitstud teoste „masintöötlamine“ on Euroopa Liidu õigusega kooskõlas. Vajadus autoriõigusega kaitstud teoste masintöötlamise reguleerimiseks aga kasvab – teoste töötlemisel põhinevad tehnoloogiad on üha laialdasemalt kasutust leidnud finantsvaldkonnas, teaduses ja meditsiinis. Teoste masintöötlamine on Euroopa Liidu õiguse mõttes problemaatiline järgmistel põhjustel: Esiteks tekivad masintöötlamise käigus teose koopiad. Tekkinud koopiaid ei edastata ega muudeta üldsusele kättesaadavaks, vaid nad on tehnoloogilise protsessi kõrval-produkt. Samas on Euroopa Liidu autoriõiguse üks aluspõhimõtteid, et teose reprodutseerimisõigus kuulub autorile ning teose reprodutseerimine ilma autori nõusolekuta ei ole lubatud. Teiseks säilitatakse töötlemiseks vajalikke teoseid tihti andmebaasides, mis on omakorda kaitstud autoriõiguse või *sui generis* õigusega. Sellest tulenevalt võib teoste masintöötlamise eesmärgil juurdepääsu saamine olla takistatud ja keeruline.

Autoriõigusega kaitstud teoste masintöötlamise lubatavus pole üheselt selge ja see võib kaasa tuua Euroopa konkurentsivõime vähenemise. Õiguskindluse puudumisel liiguvad investeeringud riikidesse, kus teoste masintöötlamisel põhinevate tehnoloogiate arendamine on võrreldes Euroopaga selgemalt reguleeritud.

Käesoleva töö eesmärgiks on analüüsida teoste masintöötlamise lubatavust Euroopa Liidu kontekstis ning uurida, kas ja millised võiksid olla edasised arengud Euroopa Liidus. Töö keskendub peamiselt järgmistele küsimustele:

²¹⁸ Käesolevas töös kasutatud mõistet „töötlamine“ tuleb mõista erinevalt autoriõiguse seaduses kasutatavast õigusest teose töötlemisele (AutÕS § 13 lg 1 p 5 kohaselt kuulub autorile ainuõigus teha teosest kohandusi (adaptsioone), töötusi (arranzeeringuid) ja teisi töötusi (õigus teose töötlemisele)). Autoriõiguse seaduse § 13 lg 1 p 5 vastab Berni konventsiooni artiklile 12, mille kohaselt „Authors of literary or artistic works shall enjoy the exclusive right of authorizing adaptations, arrangements and other alterations of their works.“. Mõiste „töötlamine“ autoriõiguse seaduse kontekstis on mõiste „alteration“ tõlge. Mõiste „töötlamine“ käesolevas töös on mõiste „processing“ tõlge.

- 1) Autoriõigusega kaitstud teoste masintöötlemine Euroopa Liidus.
- 2) Kas Euroopa Komisjoni senine tegevus teoste masintöötlemise küsimuste lahendamisel on piisav Euroopa Liidu autoriõiguse eesmärkide saavutamiseks?
- 3) Ettepanekud Euroopa Liidu õiguse muutmiseks, mis lahendaksid masintöötlemisega seotud õiguslikud probleemid ning nende kooskõla rahvusvahelise autoriõigusega.

Käesoleva töö esimeses peatükis käsitletakse teoste masintöötlemist Euroopa Liidu õiguse kontekstis. Kuigi mõistet teose „masintöötlemine“ Euroopa Liidu seadusandlusest ei leia, langeb see Euroopa Liidu Infoühiskonna direktiivi, Andmebaaside õiguskaitse direktiivi ning teatud määral ka Euroopa Liidu konkurentsioiguse reguleerimisalasse. Infoühiskonna direktiivi artikli 2 kohaselt kuulub teose reprodutseerimisõigus autorile. Teose reprodutseerimine ilma autori nõusolekuta on lubatud ainult Infoühiskonna direktiivi artiklis 5 toodud juhtudel. Käesoleval hetkel ei ole üheselt selge, kas teose masintöötlemise käigus reprodutseerimine langeb mõne artiklis 5 toodud autoriõiguse erandi alla. On leitud, et teoste masintöötlemine teadusuuringute käigus on hõlmatud artiklis 5(3) (a) sätestatud õppetöö ja teadusuuringute erandiga. Euroopa Liidu Kohtu hiljutine kohtupraktika osundab, et teose masintöötlemine võiks teatud juhtudel langeda ka artiklis 5(1) toodud ajutise reprodutseerimise erandi alla. Otsustes *Infopaq I* ja *Infopaq II* on Euroopa Liidu Kohus välja toonud ning selgitanud viit tingimust, mis peavad artikkel 5(1) kohaldamiseks täidetud olema. Eeldusel, et kõik Euroopa Liidu Kohtu poolt ettekirjutatud tingimused on täidetud võiks masintöötlemine langeda artiklis 5(1) sätestatud ajutise reprodutseerimise erandi alla. Kuigi Euroopa Liidu Kohtu hiljutine kohtupraktika on teoste masintöötlemise lubatavuse osas paljutõotav, ei taga see siiski vajalikku õiguskindlust.

Lisaks reprodutseerimisõigusele tõstatuvad teoste masintöötlemise kontekstis ka andmebaaside õiguskaitsega seotud küsimused. Tihti leiduvad masintöötlemiseks sobilikud ja/või vajalikud teosed andmebaasides, mis on kaitstud autoriõiguse või *sui generis* õigusega. Andmebaaside õiguskaitse direktiivi artikli 7 kohaselt ei ole andmebaasi kasutajal ilma andmebaasi tegija nõusolekuta õigust teha väljavõtet andmebaasi sisu olulisest osast. Nimetatud põhimõte on teoste masintöötlemise kontekstis problemaatiline – tehnoloogiad ja teadustöö, mis põhinevad teoste töötlemisele eeldavad tihtipeale kvantitatiivselt suurte andmemahtude töötlemist. Konkurentsioiguse meetmed, nagu näiteks sundlitsentsid, võiksid teatud olukordades lahendada teoste juurdepääsuga seotud küsimusi. Siinkohal tuleb siiski nentida, et sundlitsentsi saamise menetlus on ajamahukas ning sundlitsentsimine on eelkõige mõeldud individuaalsete kaasuste lahendamiseks ning ei taga seetõttu vajalikku õiguskindlust.

Töö teises peatükis antakse ülevaade Euroopa Komisjoni senisest tegevusest teoste masintöötlemisega seotud õiguslike probleemide lahendamiseks. Euroopa Liit on alates 1980ndate aastate lõpust, mil algas liikmesriikide autoriõiguse harmoniseerimine, viidanud, et Euroopa Liidu autoriõiguse üheks peamiseks eesmärgiks on Euroopa majanduse edendamine ning konkurentsivõime suurendamine. Kui veel kümne aasta eest leiti, et autoriõiguste tugev ja tõhus kaitse on majandusarengu peamine tagatis, siis käesoleval hetkel tunnustab Euroopa Komisjon üha enam ka teiste huvigruppide huvide kaitsmise vajalikkust.

Kuigi Euroopa Komisjon on tunnustanud teoste masintöötlemisega seotud küsimuste olulisust, on tema senine tegevus olnud üsnagi piiratud. Euroopa Komisjoni fookuses on olnud teadustööde teksti- ja andmekaeve (üks teose masintöötlemise meetoditest) mitteärilisel teadusuuringute eesmärgil. 2013. aastal algatas Euroopa Komisjon erinevate huvigruppide vahelised läbirääkimised, mille peamiseks eesmärgiks oli arutada võimalikke täiendavaid litsentseerimislahendusi mitteärilisel eesmärgil teksti- ja andmekaeve võimaldamiseks. Mitmed läbirääkimistel osalenud huvigruppide esindajad leidsid, et Euroopa Komisjon on teoste masintöötlemisega seotud küsimuste lahendamisele valesti lähenenud – lahenduseks ei peaks olema täiendavad litsentsid, vaid hoopis seadusandlikud muudatused. Kriitikast hoolimata läbirääkimiste fookus oluliselt ei muutunud, mistõttu mitmed huvigrupid otsustasid läbirääkimistelt taanduda.

Kuigi Euroopa Komisjon teadvustab majanduslikku arengut ja innovatsiooni edendava autoriõiguse süsteemi vajalikkust, ei tundu Euroopa Komisjoni senine tegevus neid seisukohti kinnitavat. On selge, et uute tehnoloogiate arendamine toimub suures osas ärilisel eesmärgil. Samuti on hägustunud piir mitteäriliste ja äriliste teadusuuringute vahel. Seniste läbirääkimiste väga piiratud ulatus – teadustööde teksti- ja andmekaeve mitteärilisel teadusuuringute eesmärgil – võib muuta keeruliseks Euroopa Liidu autoriõiguse ette püstitatud eesmärkide saavutamise

Töö kolmas peatükk keskendub rahvusvahelisele ja USA autoriõigusele. Peatüki eesmärgiks on analüüsida, kas ja millised on Euroopa Liidu võimalused autoriõiguse muutmiseks rahvusvahelise õiguse kontekstis. Euroopa Liidu õigus ületab teatud valdkondade puhul välislepingutes sätestatud autoriõiguse kaitse miinimumnõuded. Näiteks ei tunnusta rahvusvahelised lepingud andmebaaside puhul investeringut kaitsvat *sui generis* õigust – rahvusvahelisel tasandil kaitstakse andmebaase ainult autoriõigusega. Kui Euroopa Liit sooviks kehtestada uusi või muuta olemasolevaid autoriõiguse erandeid ja piiranguid, siis peavad need olema kooskõlas rahvusvahelise kolmeastmelise testiga, mille kohaselt võivad riigid seada piiranguid või teha erandeid 1) teatud erijuhtudel; 2) kui see ei ole vastuolus teose normaalse kasutamisega ega; 3) kahjusta liigselt õigusevaldaja seaduslikke huve.

Kuigi Euroopa Liit ja USA on seotud samade rahvusvaheliste lepingutega erinevad nende intellektuaalse omandi õiguslikud regulatsioonid märgatavalt. USA autoriõigus tunnistas *fair-use* doktriini, mis võimaldab kohtul arvestada autoriõiguse laiemaid, sh ühiskondlikke, eesmärke. Euroopa kohtud seevastu on seotud seadusest tulenevate piirangutega, mistõttu neil selline võimalus puudub. Samuti puudub USA-s *sui generis* andmebaaside kaitse. Euroopa ja USA kohtupraktika võrdlusest nähtub, et USA autoriõiguse süsteem on teoste masintöötlemisel põhinevate tehnoloogiate kasutuselevõtu suhtes soosivam. Ühendriikide ja Euroopa Liidu autoriõiguse erinevused viitavad asjaolule, et rahvusvaheline autoriõigus jätab riikidele masintöötlemise regulatsiooni osas arvestatava otsustusvabaduse.

Euroopa Liit pole käesolevaks hetkeks otsustanud, kas ja kuidas autoriõiguse reformimisega edasi minna. Käesoleva töö neljandas peatükis analüüsitakse kolme erinevat Euroopa Liidu õiguse muudatusettepanekut teoste masintöötlemise kontekstis. Eesmärgiks on selgitada, kas väljapakutud parandusettepanekud lahendavad masintöötlemisega seotud õiguslikud küsimused ning kas need on kooskõlas rahvusvahelise kolmeastmelise testiga. Muudatusettepanekute analüüsi pinnalt saab Euroopa Liidu õiguse muutmise kontekstis teha järgmised üldistused: Teoste masintöötlemisega seotud õiguslike küsimuste lahendamine eeldab muudatuste tegemist nii Infoühiskonna kui ka Andmebaaside õiguskaitse direktiivis. Juhul, kui Andmebaaside õiguskaitse direktiivi viiakse sisse uus *sui generis* õigust või autoriõigust puudutav erand, siis tuleks direktiivis sätestada, et erand on õiguse valdaja jaoks kohustusliku iseloomuga – direktiiv ei peaks võimaldama lepinguga erandist kõrvale kalduda. Autoriõigusega kaitstud teoste masintöötlemisest huvitatud pooled ei oma turul üldjuhul võrdset kaalu. Seadusandlik lahendus peaks olema seega suunatud pooltele võrdsete tingimuste tagamiseks. Sundlitsentsi kasutamine autoriõiguse meetmena tagaks olukorra, kus pooltel oleks sundlitsentsi tüüpi autoriõiguse erandile võimalik tugineda olukorras, kus turusituatsioonis kokkuleppele jõudmine ei osutu võimalikuks. Kui õiguste omajatele kaasnevad teose masintöötlemisega kulutused, siis peab sellega kaasnema õiglase hüvitis.

Teoste masintöötlemise erand ei tohiks eristada teoseid lähtuvalt nende tüübist. Seda eelkõige põhjusel, et teoste masintöötlemisel on teose päritolu ja algne eesmärk tihtipeale ebaoluline. Äärmise vajaduse korral võiks kaaluda teoste eristamist läbi hüvitise maksmise korra. Teoste masintöötlemist sätestav erand peaks olema mitte seotud kindlate tehnoloogiatega, et tagada arenguvõimalus kiirelt muutuvast valdkonnast.

SOURCES

Literature

1. **Borghi, M.**, Karapapa, S. Copyright and Mass Digitization. Oxford: Oxford University Press 2013.
2. **Borghi, M.**, Karapapa, S. Non-display uses of copyright works: Google books and beyond. – Queen Mary Journal of Intellectual Property April 2011 Vol 1 No 1.
3. **Brown, A. E. L.** Intellectual Property, Competition and the Internet. – Law and the Internet. 3rd Edition. Edited by L. Edwards, C. Waelde. Oxford, Portland, Oregon: Hart Publishing 2009.
4. **Chalmers, D.**, Davies, G., Monti, G. European Union Law. 2nd Edition. Cambridge: Cambridge University Press 2011.
5. **Craig, P.**, Búrca, G. de. EU Law: Text, Cases and Materials. 5th Edition. Oxford: Oxford University Press 2011.
6. **Davidson, M. J.** The Legal Protection of Databases. Cambridge: Cambridge University Press.
7. **Dewatripont, M.**, Ginsburgh, V., Legros, P., Walckiers, A., Devroey, J. P., Dujardin, M., Vandooren, F., Dubois, P., Foncel, J., Ivaldi, M., Heusse, M. D. Study on the economic and technical evolution of the scientific publications market in Europe. Commissioned by European Commission DG-Research. Final Report January 2006. Available at: http://ec.europa.eu/research/science-society/pdf/scientific-publication-study_en.pdf (01.05.2014).
8. **Edwards, J.** Has the Dreaded Data Doomsday Arrived: Past, Present and Future Effects of the European Union's Database Directive on Database and Information Availability in the European Union. – Georgia Law Review 2004 Vol 39 No 1.
9. **Geiger, C.** Promoting Creativity through Copyright Limitations: Reflections on the Concept of Exclusivity in Copyright Law. – Vanderbilt Journal of Entertainment and Technology Law 2010 Vol 12:3:515.
10. **Ginsburg, J. C.** Toward Supranational Copyright Law? The WTO Panel Decision and the “Three-Step Test” for Copyright Exceptions. – Revue Internationale du Droit d’Auteur 2001. Available at: <http://dx.doi.org/10.2139/ssrn.253867> (23.04.2014).

11. **Ginsburg, J. C.** European Copyright Code – Back to First Principles (with Some Additional Detail). – Journal of the Copyright Society of the USA 2011 Vol 58 No 3.
12. **Greenberg, B. A.** Copyright Trolls and Presumptively Fair Uses. – University of Colorado Law Review 2014 Vol 85.
13. **Griffiths, J.** The “Three-Step Test” in European Copyright Law – Problems and Solutions. Queen Mary School of Law Legal Studies Research Paper No. 31/2009. Available at: <http://ssrn.com/abstract=1476968> (23.04.2014).
14. **Grosheide, F. W.** Database Protection – The European Way. – Washington University Journal of Law & Policy 2002 Vol 8.
15. **Guibault, L., Westkamp, G., Rieber-Mohn, T.** Study on the Implementation and Effect in Member States’ Laws of Directive 2001/29/EC on the Harmonisation of Certain Aspects of Copyright and Related Rights In the Information Society. Final Report. February 2007. Available at: http://www.ivir.nl/publications/guibault/Infosoc_report_2007.pdf (30.04.2014).
16. **Hargreaves, I.** Digital Opportunity – a Review of Intellectual Property and Growth May 2011. Available at: <http://www.ipo.gov.uk/ipreview-finalreport.pdf> (02.05.2014).
17. **Henry, S. E.** The First International Challenge to U.S. Copyright Law: What Does the WTO Analysis of 17 U.S.C. § 110(5) Mean to the Future of International Harmonization of Copyright Laws Under the TRIPS Agreement? – Penn State International Law Review 2001 Vol 20 No 1. Available at: <http://cyber.law.harvard.edu/people/tfisher/IP/Henry%202001.pdf> (23.04.2014).
18. **Hugenholtz, P. B.,** Eechoud, M. van., Gompel, S. van., Guibault, L., Helberger, N., Rossini, M., Steijger, L., Dufft, N., Bohn, P. The Recasting of Copyright and Related Rights for the Knowledge Economy. Final Report. November 2006. Available at: http://ec.europa.eu/internal_market/copyright/docs/studies/etd2005imd195recast_report_2006.pdf (29.04.2014).
19. **Hugenholtz, P. B.,** Senftleben, M. Fair Use in Europe: In Search of Flexibilities. Amsterdam: November 2011. Available at: <http://www.ivir.nl/publications/hugenholtz/Fair%20Use%20Report%20PUB.pdf> (23.04.2014).
20. **Jents, L., Kelli, A.** Legal Aspects of Processing Personal Data in Development and Use of Digital Language Resources: The Estonian Perspective. – Jurisprudence 2014 Vol 21 No 1.
21. **Kelli, A., Tavast, A., Pisuke, H.** Copyright and Constitutional Aspects of Digital Language Resources: The Estonian Approach. – Juridica International 2012 Vol 19.

22. **Kur, A.** Of Oceans, Islands and Water – How Much Room for Exceptions and Limitations under the Three-Step Test? – Richmond Journal of Global Law & Business 2009 Vol 8 No 3.
23. **Larouche, P.** The European Microsoft Case at the Crossroads of Competition Policy and Innovation. May 2008 TILEC Discussion Paper No 2008-021. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1140165 (02.05.2014).
24. **Leval, P. N.** Toward a Fair Use Standard. – Harvard Law Review 1990 Vol 103 No 5.
25. **Lewinski, S. von.** International Copyright and Policy. Oxford: Oxford University Press 2008.
26. **Mazziotti, G.** Copyright in the EU Digital Single Market. Report of the CEPS Digital Forum. Brussels: June 2013, p 79. Available at: <http://www.ceps.eu/book/copyright-eu-digital-single-market> (03.05.2014).
27. **Manyika, J.,** Chui, M., Bughin, J., Dobbs, R, Bisson, P., Marrs, A. Disruptive Technologies: Advances that Will Transform Life, Business and the Global Economy. McKinsey Global Institute May 2013. Available at: [file:///C:/Downloads/MGI Disruptive technologies Full report May2013.pdf](file:///C:/Downloads/MGI%20Disruptive%20technologies%20Full%20report%20May2013.pdf) (16.06.2014).
28. **McDonald, D.,** Kelly, U. The Value and Benefit of Text Mining to UK Further and Higher Education. JISC 2012. Available at: <http://www.jisc.ac.uk/reports/value-and-benefits-of-text-mining> (16.04.2014).
29. **Ramello, G. B.** Intellectual Property and the Market of Ideas. – The Elgar Companion to Law and Economics, 2nd Edition. Edited by J. G. Backhaus. Edward Elgar Publishing Inc, 2005.
30. **Reichman, J. H.,** Okediji, R. L. When Copyright Law and Science Collide: Empowering Digitally Integrated Research Methods on a Global Scale. – Minnesota Law Review 2012 Vol 96 No 4. Available at: http://scholarship.law.duke.edu/faculty_scholarship/2675/ (17.04.2014).
31. **Sag, M.** Copyright and Copy-Reliant Technology. – Northwestern University Law Review 2009 Vol 103 No 4. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1257086 (30.04.2014).
32. **Senftleben, M.** Overprotection and Protection Overlaps in Intellectual Property Law – The Need for Horizontal Fair Use Defences. – The Structure of Intellectual Property Law: Can One Size fit All? Edited by A. Kur, V. Mizaras, Cheltenham: Edward Elgar Publishing 2011. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1597123 (23.04.2014).

33. **Sun, H.** Overcoming the Achilles Heel of Copyright Law. – Northwestern Journal of Technology and Intellectual Property 2007 Vol 5 No 2.
34. **Tudor, J.** Compulsory Licensing in the European Union. – George Mason Journal of International and Commercial Law 2012 Vol 4:2. Available at:
http://www.georgemasonjicl.org/wp-content/uploads/2013/05/4_Geo_Mason_J_Intl_Com_Law_186_2013.pdf (02.05.2014).
35. **Turner, J. D.C.**, Intellectual Property and EU Competition Law. Oxford: Oxford University Press 2010.
36. **Walter. M. M.**, Lewinski, S. von (editors). European Copyright Law. A Commentary. Oxford: Oxford University Press 2010.
37. **Toth, A. G.** The Oxford Encyclopaedia of European Community Law. Volume III Competition Law and Policy. Oxford: Oxford University Press 2008.
38. **Triaille, J. P.**, de Meeûs d'Argenteuil, J., de Francquen, A. Study on the Legal Framework of Text and Data Mining (TDM). March 2014.
Available at :
http://ec.europa.eu/internal_market/copyright/docs/studies/1403_study2_en.pdf
(27.04.2014).
39. **Tritton, G.**, Davis, R., Edenborough, M., Graham, J., Malynicz, S., Roughton, A. Intellectual Property in Europe. 2nd Edition. London: Thomson Sweet & Maxwell 2002.

Normative Materials

40. Berne Convention for the Protection of Literary and Artistic Works (as revised in Paris 24.07.1971 and as amended 28.09.1979).
41. Agreement on Trade Related Aspects of Intellectual Property Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299.
42. World Intellectual Property Organisation Copyright Treaty 1996, 36 ILM 65 (1997).
43. Treaty on the Functioning of the European Union. OJ C 326/49. 26.10.2012.
44. Treaty of Lisbon amending the Treaty on European Union and the Treaty Establishing the European Community. 2007/C 306/01. 13.12. 2007. OJ C 306/1 17.12.2007.
45. Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information. OJ L 345/90, 31.12.2003.

46. Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the European Union. OJ L 167/10, 22.06.2001.
47. Council Regulation (EC) 1/2003 of 16 December 2002 on the implementation on rules on competition laid down in articles 81 and 82 of the Treaty. OJ L 1/1 04.01.2003.
48. Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases. OJ L 77/20, 27.03.1996.

Case-Law

Court of Justice of the European Union Case-Law

49. ECJ, Judgement of 14.02.1978, Case 27/76 *United Brands Co. v Commission* [1978] ECR 207.
50. ECJ, Judgement of 05.10.1988, Case 238/87 *Volvo AB v Erik Veng (UK) Ltd* [1988] ECR 6211.
51. ECJ, Judgement of 06.04.1995, Cases C-241/91 P & C-242/91 P *Radio Telefis Eireann and others v Commission and Magill TV Guide* [1995] ECR I-00743.
52. ECJ, Judgement of 26.11.1998, Case C-7/97 *Bronner v Mediaprint* [1998] ECR I-07791.
53. ECJ, Judgement of 29.04.2004, Case C 418/01 *IMS Health v NDC Health* [2004] ECR I-00791.
54. ECJ, Judgement of 09.11.2004, Case C-203/02 *The British Horseracing Board Ltd and Others v William Hill Organization Ltd.* [2004] ECR I-10415.
55. ECJ, Judgement of 16.07.2009, Case C-5/08 *Infopaq International A/S v Danske Dagblades Forening* [2009] ECR I-06569.
56. ECJ, Judgement of 17.01.2012, Case C-302/10 *Infopaq International A/S v Danske Dagblades Forening.*
57. CFI, Judgement of 17.09.2007, Case T-201/04 *Microsoft v Commission* OJ C 269 10.11.2007.

World Trade Organisation Dispute Settlement Body Case-Law

58. World Trade Organisation. United States – Section 110(5) of the US Copyright Act. Report of the Panel. WT/DS160/R, 15.06.2001, paragraph 1.1. Available at: [http://www.worldtradelaw.net/reports/wtopanelsfull/us-copyright\(panel\)\(full\).pdf](http://www.worldtradelaw.net/reports/wtopanelsfull/us-copyright(panel)(full).pdf) (23.04.2014).

National Case-Law

59. *Campbell v. Acuff-Rose Music, Inc*, 510 U.S. 569 (1994).
60. *The Authors Guild Inc v Google Inc*, 05 Civ 8136. 14.11.2013.
61. *Editions du Seuil et autres c Google Inc et France*. Tribunal de grande instance de Paris 3ème chambre, 2ème section Jugement du 18 décembre 2009. Available at: http://www.legalis.net/spip.php?page=jurisprudence-decision&id_article=2812 (24.04.2014).

EU Commission Documentation

62. European Commission. Communication from the Commission on content in the Digital Single Market, COM(2012) 789 final. Brussels: 18.12.2012. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0789:FIN:EN:PDF> (17.04.2014).
63. European Commission. Commission agrees way forward for modernising copyright in the digital economy, MEMO/12/950. Brussels: 05.12.2012. Available at: [http://europa.eu/rapid/press-release MEMO-12-950_en.htm](http://europa.eu/rapid/press-release_MEMO-12-950_en.htm) (16.04.2014).
64. European Commission. Communication from the Commission. Europe 2020: A Strategy for smart, sustainable and inclusive growth. COM(2010) 2020 final. Brussels: 03.03.2010, Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF> (29.04.2014).
65. European Commission. Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to

- abusive exclusionary conduct by dominant undertakings 2009/C 45/02, OJ C 45/7
24.02.2009. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF>
(04.05.2014).
66. European Commission. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions, “Think Small First” A “Small Business Act” for Europe. COM(2008) 394 final. Brussels: 25.06.2008. Available at:
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0394:FIN:EN:PDF>
(01.05.2014).
67. European Commission. DG Internal Market and Services Working Paper First Evaluation of Directive 96/9/EC on the legal protection of databases. Brussels: 12.12.2005. Available at:
http://ec.europa.eu/internal_market/copyright/docs/databases/evaluation_report_en.pdf
(26.04.2014).
68. European Commission. Green Paper on Copyright and Related Rights in the Information Society. COM(95) 382 final. Brussels: 19.07.1995. Available at:
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:51995DC0382&from=EN> (01.05.2014).
69. European Commission. Communication from the Commission. Green Paper on Copyright and the Challenge of Technology – Copyright Issues Requiring Immediate Action. COM (88) 172 final. Brussels: 07.06.1988. Available at:
[http://ec.europa.eu/green-papers/pdf/green_paper_copyright_and_challenge_of_thechnology_com_\(88\)_172_final.pdf](http://ec.europa.eu/green-papers/pdf/green_paper_copyright_and_challenge_of_thechnology_com_(88)_172_final.pdf) (01.05.2014).

Miscellaneous

70. Amended Settlement Agreement. *The Authors Guild, Inc. Association of American Publishers, Inc., et al v. Google Inc.* Case No 05 CV 8136-DC. Available at: <http://www.authorsguild.org/wp-content/uploads/2008/10/Amended-Settlement-Agreement.pdf> (26.04.2014).
71. Bently, L., Dreier, T., Hilty, R., Hugenholtz, P. B., Quaedvlieg, A., Strowel, A., Visser, D. et al. European Copyright Code. Available at: <http://www.copyrightcode.eu/index.php?websiteid=3> (02.05.2014).
72. Dechamp, J. F. The European Commission policy on open Access: the importance of text and data mining, Brussels 22.04.2013. Available at: <http://ec.europa.eu/licences-for-europe-dialogue/en/content/wg4-presentations-3rd-meeting-22-april> (18.04.2014).
73. Draft of the Copyright and Related Rights Act (01.02.2014) (in Estonian Autoriõiguse ja autoriõigusega kaasnevate õiguste seaduse eelnõu (01.02.2014)). Available at: <http://www.just.ee/orb.aw/class=file/action=preview/id=59367/Autori%F5iguse+seaduse+eeln%F5u.pdf> (16.04.2014).
74. Dyson, G. Turing's Cathedral. 23.10.2005. Available at: <http://www.edge.org/conversation/turing-39s-cathedral> (16.04.2014).
75. European Commission website on EU Single Market. Public Consultation on the Review of the EU Copyright Rules. Available at: http://ec.europa.eu/internal_market/consultations/2013/copyright-rules/index_en.htm (16.04.2014).
76. European Commission website on Enterprise and Industry. Available at : http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/index_en.htm (01.05.2014).
77. European Copyright Code website. Introduction 26.04.2010. Available at: <http://www.copyrightcode.eu/index.php?websiteid=1> (02.05.2014).
78. Geiger, C., Hilty R. M., Griffiths, J., Suthersanen, U., et al. Declaration. A Balanced Interpretation of the “Three-Step Test” in Copyright Law, Munich: 2008. Available at: http://www.ip.mpg.de/files/pdf2/declaration_three_step_test_final_english.pdf (23.04.2014).
79. Hilty. R. M., Krujatz, S., Bajon, B., Früh, A., Kur, A., Drexl, J., Geiger, C., Klass, N. European Commission – Green Paper: Copyright in the Knowledge Economy –

- Comments by the Max Planck Institute for Intellectual Property, Competition and Tax Law December 2009. Available at:
<http://papers.ssrn.com/sol3/papers.cfm?abstract-id=1317730> (01.05.2014).
80. HM Government. The Government Response to the Hargreaves Review of Intellectual Property and Growth. August 2011. Available at:
<http://www.ipo.gov.uk/ipresponse-full.pdf> (16.04.2014).
81. IBM website for Watson Solutions. Available at:
<http://www.ibm.com/smarterplanet/us/en/ibmwatson/work.html> (16.04.2014).
82. Google Books official website. Available at:
<http://books.google.com/intl/en/googlebooks/about/history.html> (26.04.2014).
83. Letter from European Technology SMEs, Open Access Publishers and the Research Sector WG4. Available at:
http://www.eblida.org/News/Letter_of_withdrawalL4E_TDM_May%2024.pdf
(18.04.2014).
84. Letter sent by concerned participants in response to the “Licences for Europe – A Stakeholder Dialogue” workshop on text and data mining for scientific research purposes, 26.02.2013. Available at:
<http://www.libereurope.eu/news/licences-for-europe-a-stakeholder-dialogue-text-and-data-mining-for-scientific-research-purpose> (18.04.2014).
85. Lewinski, von L. Expert Opinion on the Draft of the Copyright and Related Rights Act. 26.08.2013. Available at:
<http://www.just.ee/orb.aw/class=file/action=preview/id=59027/Ekspertarvamus+autori%F5iguse+eeln%F5u+kohta+%28dr++Silke+von+Lewinski%29.pdf> (16.04.2014).
86. R. Mounce. Content Mining. Available at:
https://ec.europa.eu/licences-for-europe-dialogue/sites/licences-for-europe-dialogue/files/TDM-researcher_0.pdf (20.04.2014).
87. Neelie Kroes Blog. Reform of EU Copyright rules: your chance to give your views. Available at:
http://ec.europa.eu/commission_2010-2014/kroes/en/content/reform-eu-copyright-rules-your-chance-give-your-views (29.04.2014).
88. Public Consultation on the Review of EU Copyright Rules. Available at:
http://ec.europa.eu/internal_market/consultations/2013/copyright-rules/index_en.htm
(27.04.2014).

89. M Statement of Commitment by STM Publishers to a Roadmap to enable Text and Data Mining (TDM) for Non-Commercial Scientific Research in the European Union. 12.11.2013. Available at:
<http://ec.europa.eu/licences-for-europe-dialogue/sites/licences-for-europe-dialogue/files/10-Text-data-mining.pdf> (20.04.2014).
90. Working Group 4 – Text and Data mining. All organisations invited to join the Group/nominate members of the group. Available at:
http://ec.europa.eu/licences-for-europe-dialogue/sites/licences-for-europe-dialogue/files/131213_wg4-list-of-participants.pdf (18.04.2014).
91. Working Group 4 – Text and Data Mining. Licences for Europe, Conclusions of Working Group 4 – Text and data mining, First Meeting, 04.02.2013. Available at:
<http://ec.europa.eu/licences-for-europe-dialogue/en/content/wg4-conclusions-meetings> (18.04.2014).
92. Working Group 4 – Text and Data Mining. Licences for Europe, Conclusions of Working Group 4 – Text and data mining, Second meeting, 08.03.2013. Available at:
<http://ec.europa.eu/licences-for-europe-dialogue/en/content/wg4-conclusions-meetings> (18.04.2014).

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