
EDITORIAL

Intellectual Property: The 21st Century's Most Compelling Legal Domain

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This special issue on 'Intellectual Property' in the Utrecht Journal of International and European law is well positioned with the information age coming to its peak. It is the era in which digital copying and distribution through the internet has a profound transformative effect on the markets for copyright in music, games and video, where services such as Spotify and iTunes are greatly suppressing DVD sales, and where illegal downloading continues to impact industry daily. It is the era where the Court of Justice of the European Union (CJEU) is being presented with, among others, various questions about which acts on the internet (*e.g.* hyperlinking) are to be considered distribution of copyrighted materials under the scope of the Directive Copyright in the Information Society.¹ It so too is having to answer numerous preliminary references of national courts on the harmonisation of trademarks, as well as on the scope of the Audiovisual Media Service Directive 2010/13/EU on Internet platforms.²

At the same time, the European Commission (DG Connect) is currently in the middle of revising both the Directive on Copyright in the Information Society,³ and the Audiovisual Media Service Directive.⁴ These efforts have proven to be quite a challenge considering the European informational sector operates within the contours of an extremely rapidly changing landscape. On the internet, almost all information is available at arm's length, and is shared and is reused in a split second, largely ignoring possible copyright claims. Passive television viewing is increasingly being substituted by the individual use of new services. Millions of European citizens watch video on demand through websites like YouTube and Netflix, or catch up with their favourite television series on a computer, tablet device or smartphone. In the meantime, such users can put either their own user-generated content online, or that of others, making copyright protection redundant. Traditional boundaries between consumers, broadcast media and the internet are diminishing, and the lines between the familiar 20th century consumption patterns are blurring. Moreover, with smartphones, tablets, and converged production, as well as an increasing consumption of information content, there will be a further shift from 'lean-back' consumption to active participation. This progressive merger of traditional services and the internet is known as 'convergence'.⁵

This trend towards digitisation and convergence has long been forecast, but is now indeed becoming a reality.⁶ Technology already allows users to create, distribute and access all types of content irrespective of the time, place or device. The shift in the use of media by consumers, including the growing use of on-demand services on the internet is significant. Children are increasingly adding on-demand services to their media consumption through the internet. Although technological developments may offer many

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¹ Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [2001] OJ L167/1.

² Council Directive 2010/13/EU of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) [2010] OJ L95/1; Commission, 'Preparing for a Fully Converged Audiovisual World: Growth, Creation and Values' COM(2013) 231 final, 1.

³ Commission, 'A Digital Single Market Strategy for Europe' (Communication) COM(2015) 192 final.

⁴ Directive 2010/13/EU (n 2).

⁵ Madeleine de Cock Buning, 'De Mediamachine als Zevenkoppig Monster' (Inaugural Speech, Utrecht University, 2006).

⁶ Madeleine de Cock Buning, 'Towards a Future-Proof Framework for the Protection of Minors in European Audiovisual Media' (2014) 10(5) Utrecht Law Review 9.

opportunities for these young audiences, they also imply new challenges regarding their protection. It is therefore inevitable that the current regulatory and supervisory arrangements for the protection of minors in audiovisual media against harmful content are re-evaluated, making it one of the key issues for this year's revision of the Audiovisual Media Service Directive.⁷

The recent rise of 3D printing and 3D scanning is likely to do the same for the production and sale of physical objects, just as the internet did to the market on music, games and video. A 3D printer builds up an object by laying down layer upon layer of material. The multiple layers are gradually printed one on top of the other by the printer to create the finished 3D object. The effect of 3D printing immediately impacts producers of plastic consumer goods, and will spread as 3D printing and micro-manufacturing systems improve. This will create both new opportunities, and challenges of equal proportion. One can imagine an equivalent of Apple's iTunes music store or App Store for home-printable 3D objects posing challenges for current intellectual property legislation to meet the issues springing out of these new markets, while at the same time making an effort to provide for effective intellectual property protection against piracy.⁸ We have already seen music, games, video, and how big a challenge this can pose for (European) legislators and courts.

However challenging 3D printing may be for intellectual property legislators and courts, it will be nothing compared to the challenges that will be posed by the introduction of advanced robotics in our society in the near future. Advancement in technology in the domain of Autonomous Intelligent Systems (AIS) will lead to autonomous technology that can perceive, learn, decide, create and invent without any human intervention. Today, we already have robots that create better versions of robots and computer programmes that, in turn, produce other computer programmes. Although the ability to create and invent are qualities that are traditionally considered human capacities, the sudden increase in the level of complexity of such advanced systems as well as their learning abilities, would ultimately render human intervention in the process of creation and invention redundant. This makes the need to address creative agents and the challenges they bring for the domain of intellectual property ever more evident. The fact that artificial intelligence and robotics are much more than science fiction becomes apparent in the policy documents of the European Commission on sustainable innovation, where the Commission recognises that Autonomous Intelligent Systems are the next step in the development of a sustainable information society.⁹ Today, self-learning systems are indeed already gradually becoming part of our social reality. Google has introduced several apps that incorporate self-learning aspects.¹⁰ During its recent press conference on Google I/O, it introduced a self-learning app – Google Photos – that can categorise and sort through its users' photos based on the people and objects photographed, which it learns to recognise. Leading AI scholar Geoff Hinton announced that Google's computers will have developed 'common sense' within a decade.¹¹ One of the most compelling and creative agents at present is the programme *The Painting Fool*,¹² developed by Simon Colton. The program was developed to challenge our perception of creativity as a human quality, and thus of the intellectual property protection of its output.¹³

We can safely establish that legal domains that can be characterised by their high rate of change caused by either societal needs or economic and technological innovations, such as intellectual property, form a constant challenge for legislators and courts; providing for future-proof legislation, while defining its borders within the global information society as well as its limitations toward other connected fields of law such as competition law and human rights. As legal scholars, we should see these challenges as an opportunity to define the landscape and find ways that adapt flexibly to the changing realities. This edition of the Utrecht Journal of International and European Law certainly contributes to this discourse.

In his article '*Toward a Human Rights Method for Measuring International Copyright Law's Compliance with International Human Rights Law*',¹⁴ Saleh Al-Sharieh of the University of Groningen focuses on a topic of high

⁷ See COM(2013) 231 final (n 2).

⁸ Madeleine de Cock Buning and Stefan Kulk, '3D Printen: 'Attack of the Clones' of 'A New Hope' (2014) 4(36) *Intellectuele Eigendom en Reclamerecht* 309.

⁹ Commission, 'Horizon 2020 – The Framework Programme for Research and Innovation' (Communication) COM(2012) 808 final.

¹⁰ Jeroen Kraan, 'Google Datastofzuiger Biedt steeds meer 'Briljant Griezellige' Trucjes' *Nu.nl* (29 May 2015) <<http://www.nu.nl/weekend/4057880/googles-datastofzuiger-biedt-steeds-meer-briljant-griezellige-trucjes.html>> accessed 14 December 2015.

¹¹ Hannah Devlin, 'Google a Step Closer to Developing Machines with Human-Like Intelligence' *The Guardian* (21 May 2015) <<http://www.theguardian.com/science/2015/may/21/google-a-step-closer-to-developing-machines-with-human-like-intelligence>> accessed 14 December 2015.

¹² See <<http://www.thepaintingfool.com>>.

¹³ Simon Colton, 'Creativity Versus the Perception of Creativity in Computational Systems' (2008) Association for the Advancement of Artificial Intelligence <http://www.thepaintingfool.com/papers/colton_aaai08symp.pdf> accessed 13 October 2015.

¹⁴ Saleh Al-Sharieh, 'Toward a Human Rights Method for Measuring International Copyright Law's Compliance with International Human Rights Law' (2016) 32(82) *Utrecht Journal of International and European Law* 5, DOI: <<http://dx.doi.org/10.5334/ujiel.233>>.

relevance for today's global information society; the international aspects of copyright relative to the human rights involved. Al-Sharieh focuses on the fact that State parties to international copyright instruments are obliged to give effect to their obligations under international copyright law, and at the same time, have to fulfil their obligations with respect to the striking of a balance between the human rights of authors and users of intellectual property. He points out that the UN High Commissioner of Human Rights has concluded that such a balance 'is one familiar to intellectual property law', but wonders (and researches) whether the assumption that international copyright law is already compliant with international human rights law is actually true. Saleh Al-Sharieh points out that international copyright law instruments are not very clear about the meaning and content of this balance with human rights, leaving room for stakeholders to defend varied versions of balance, which are not necessarily consistent. Concurrently, international human rights law bodies and scholars have examined the human rights of authors and users of intellectual works through a copyright law lens, missing a chance to articulate a clear balance of human rights principles. According to Al-Sharieh, a proper human rights balance between authors' and users' human rights should recognise the limited nature of both sets of human rights and reject any hierarchy between them.

Yole Tanghe from KU Leuven sheds lights on the EU competence on intellectual property in her article, *'The Borders of EU Competences with Regard to the International Regulation of Intellectual Property Rights: Constructing a Dam to Resist a River Bursting Its Banks'*.¹⁵ Against the background of the recent negotiations on the highly anticipated Free Trade Agreements (e.g. CETA and TTIP), she assesses to which extent the EU can regulate intellectual property. With an eye on two recent cases at the CJEU that have reversed the landmark decision in Opinion 1/94, where the Commission sought the opinion of the Court on the competence of the European Community to conclude the WTO Agreement, the General Agreement on Trade in Services (GATS) and the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs), Tanghe sheds light on the current state of affairs of EU competence for intellectual property. She explains that in the *Daiichi Sankyo* case,¹⁶ the Court elaborates on the EU's explicit external competence in the field of intellectual property and that this explicit competence is provided for by Article 207 TFEU on the common commercial policy, which allows the EU to conclude agreements concerning the 'commercial aspects of intellectual property'. In the *Broadcasting Rights* case,¹⁷ on the other hand, the Court based its decision on the EU's implied competence to conclude international agreements, as provided for by Article 3(2) TFEU. Tanghe concludes that considering the outcome of these two cases, the Court seems to grant the EU a wide scope of action with regard to intellectual property rights. She points out that as a consequence, questions arise with regard to the role that is left for the Member States in the field of intellectual property. Her contribution is therefore especially useful since it aims at outlining the scope of the EU's exclusivity in intellectual property matters and highlights its borders.

In her article, *'Cross-border Patent Disputes: Unified Patent Court or International Commercial Arbitration?'*¹⁸ Ana Alba Betancourt of the National Autonomous University of Mexico looks into the enforcement of patents in an international context. She points out that a patent that is registered in several countries involves the risk of getting different and conflicting decisions from the national courts. In an attempt to homogenise the patent system, twenty-five EU Member States entered into an agreement in 2013 creating the European patent with unitary effect and a Unified Patent Court (UPC). Alba Betancourt focuses on the UPC, which aims to have a single Court proceeding for cross-border patent conflicts. She attempts to answer the question whether the UPC system would indeed represent an advantage over the current litigation system. She states that it indeed does and explores what she considers to be the main two advantages of the UPC system over the current risks of cross-border litigation of patents, namely the ability to drag several conflicts to a single procedure and the neutrality of the decision makers. Alba Betancourt explains how the UPC system is going to work in regard to jurisdiction, the preliminary injunctions, the choice of law and the enforcement of the decision. In comparing the procedural aspects of the UPC to similar procedural aspects in arbitration, she concludes that arbitration involves the same advantages as the UPC. Alba Betancourt concludes that arbitration represents a viable alternative to the UPC when it comes to reducing the risks in solving cross-border patent conflicts.

In the concluding contribution, in his article, *'Taking Technological Infrastructure Seriously: Standards, Intellectual Property and Open Access'*,¹⁹ Carl Mair from Leiden University touches on a tremendously

¹⁵ Yole Tanghe, 'The Borders of EU Competences with Regard to the International Regulation of Intellectual Property Rights: Constructing a Dam to Resist a River Bursting Its Banks' (2016) 32(82) *Utrecht Journal of International and European Law* 27, DOI: <<http://dx.doi.org/10.5334/ujiel.235>>.

¹⁶ Case C-414/11 *Daiichi Sankyo* [2013] EU:C:2013:520.

¹⁷ Case C-114/12 *Commission v Council* (Broadcasting Rights) [2014] EU:C:2014:2151.

¹⁸ Ana Alba Betancourt, 'Cross-border Patent Disputes: Unified Patent Court or International Commercial Arbitration?' (2016) 32(82) *Utrecht Journal of International and European Law* 44, DOI: <<http://dx.doi.org/10.5334/ujiel.262>>.

¹⁹ Carl Mair, 'Taking Technological Infrastructure Seriously: Standards, Intellectual Property and Open Access' (2016) 32(82) *Utrecht Journal of International and European Law* 59, DOI: <<http://dx.doi.org/10.5334/ujiel.266>>.

relevant topic for the open information society of the 21st century. Mair attempts to apply an infrastructural approach to the problems of *de facto* and cooperative standard-setting in high technology. By reviewing recent case law in the area, he endeavours to provide robust economic arguments for the maintenance of 'open access' rules over such standards. Using the work of Frischmann and Peter Lee, as well as game theoretical tools, he tries to demonstrate how the 'quasi-open access' FRAND commitment could constrain strategic behaviour, Mair engages in a legal analysis, including an examination of recent case law about the availability of injunctions to demonstrate the optimal 'negotiation framework'. Finally, Mair expands the infrastructural approach to demonstrate how it can elucidate a number of current controversies in high technology markets, where the tension between the private ownership and public use of technological infrastructure is at its sharpest.

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