



City Research Online

City, University of London Institutional Repository

Citation: Bonadio, E. & Lucchi, N. (2019). How Far Can Copyright Be Stretched? - Framing the Debate on Whether New and Different Forms of Creativity Can Be Protected. *Intellectual Property Quarterly*, 2019(2), pp. 115-135.

This is the accepted version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: <https://openaccess.city.ac.uk/id/eprint/21828/>

Link to published version:

Copyright: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

Reuse: Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

City Research Online:

<http://openaccess.city.ac.uk/>

publications@city.ac.uk

How Far Can Copyright Be Stretched?
Framing the Debate on Whether New and Different Forms of Creativity Can Be Protected

Enrico Bonadio & Nicola Lucchi*

Enrico Bonadio

Senior Lecturer, City Law School University of London, UK

Nicola Lucchi

Associate Professor, Jönköping International Business School, Sweden

Abstract: This paper expands on whether copyright protection may be available for certain new and non-conventional works as diverse as graffiti, sports movements, dj-sets, culinary presentations, jokes, magic tricks, works created by artificial intelligence and engineered DNA. The potential expansion of copyright in a knowledge-based society is a relevant and topical subject at the moment also in light of the current scholarly and policy debates on the modernisation of copyright rules in many countries, including the EU and US. The issue of whether copyright can protect certain new and non-traditional products of human ingenuity is here addressed by carrying out a specific-work-related analysis of core tenets of copyright laws, including copyrightable subject matter, originality, fixation and authorship requirements, functionality exception, morality, and public policy provisions.

I. Introduction

This paper focuses on whether new spaces for copyright protection of certain new and non-traditional works can be drawn. Creative people and organizations are indeed unceasingly coming up with new forms of artistic and cultural expression, being often difficult to predict the specific shape the relevant outputs will take. Since its conception copyright laws have been constantly evolving to keep up with new developments and advances, and it is thus useful to understand how these regimes can interact with new and to some extent unconventional forms of human creativity.

It is not just art, music and culture that are evolving and challenging the traditional principles and comfortable contours of copyright laws. Recent technological developments are also playing a role. Take synthetic biology, bioengineering, and artificial intelligence techniques, that are increasingly helping to address some of today's most pressing industrial, technological and biomedical challenges; and that are producing outputs that might soon be recognised as meriting copyright protection. It could be argued that this is just 'history repeating'.¹ Copyright

* Both authors contributed equally to this article and are listed alphabetically.

¹ Justin Hughes, A Short History of "Intellectual Property" in Relation to Copyright, 33 *Cardozo L. Rev.* 1293, 1324 (2012).

laws have always needed to adapt to and catch up with new technologies and their societal consequences; this occurred for example with the advent of photography, motion pictures, computer programs, and several other “new” works.²

In this paper, we thus puzzle over whether in a world characterized by fast social and technological changes copyright laws are too obsessed with categorization of works and a rigid application of the requirements for protection and other copyright rules. The aim is to open up a discussion about whether we could imagine a more open and flexible copyright system and accommodate the interests of an increasingly broad category of creators by guaranteeing them protection.³

The categories of new and non-conventional works we take here into consideration are varied and include graffiti art, sports movements, dj-sets, culinary presentations, jokes, magic tricks, artificial intelligence (AI) and engineered DNA. These topics seem to be of great and topical interest not only to the circles of IP scholars, but also to policy-makers, especially in a period where the debate on copyright and digital content reforms is intensifying in Europe and internationally.⁴ At EU level, the significance and importance of the subject is reflected in the priorities of the EU “Digital Agenda for Europe”⁵ as well as in the current jurisprudence and recent cases at the Court of Justice of the European Union (“CJEU”).⁶

The issue of whether copyright can protect certain new and non-traditional products of human ingenuity is here addressed by carrying out a specific-work-related analysis of core tenets of copyright laws, including copyrightable subject matter, originality, fixation and authorship requirements, functionality exception and morality and public policy provisions. The article proceeds as follows: after Section II briefly expands on the theories which inform and justify copyright protection, Section III offers a preliminary analysis of the distinction between closed lists and open lists of copyrightable subject matter; Part IV and V discuss the originality and

² See also Brad Sherman and Leanne Wiseman (eds), *Copyright and the Challenge of the New 1* (2012) (noting that “one of the most challenging things about copyright law is that it is constantly subject to change”).

³ Some scholars have already speculated about whether some non-traditional works could be protected by copyright. See for example R. Anthony Reese, *Copyrightable Subject Matter in the “Next Great Copyright Act,”* 29 *Berkely Tech. L.J.* 1489 (2014); Pamela Samuelson, *Evolving Conceptions of Copyright Subject Matter*, 78 *U. Pitt. L. Rev.* 17 (2016); Christopher Buccafusco, *A Theory of Copyright Authorship*, 102 *Va. L. Rev.* 1229 (2016).

⁴ European Commission, *Commission Staff Working Document, Impact Assessment on the Modernisation of EU Copyright Rules*, 136, SWD (2016) 301 final PART 1/3 (Sept. 14, 2016); European Copyright Society, *General Opinion on the EU Copyright Reform Package* (January 24, 2017), 5, <https://europeancopyrightsocietydotorg.files.wordpress.com/2015/12/ecs-opinion-on-eu-copyright-reform-def.pdf>.

⁵ See *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A Digital Agenda for Europe*, COM (2010) 245 final/2 (Aug. 26, 2010).

⁶ See e.g. *C-310/17 Levola Hengelo BV v Smilde Foods BV*, Judgment of the Court (Grand Chamber) of 13 November 2018, ECLI:EU:C 2018, 899

fixation requirements; Part VI then focuses on the issues surrounding the functionality exception; Part VII addresses the authorship requirement; and finally Part VIII examines public policy considerations such as the idea-expression dichotomy.

The focus of the article is on works and forms of expression which have recently attracted attention amongst courts and scholars. The subjects have been selected with the purpose of identifying trends and highlighting possible commonalities and differences in the progressive expansion of the range of protectable works. We have focused on topics that have had or may have an impact on case law or policy. In providing direct and concise insight into a new area of copyright-related research, the selection of topics for comment and analysis may appear uneven or occasionally idiosyncratic. In order to overcome this limit, such a selection follows a deliberate pattern: we have tried to identify topics that are capable of stimulating the academic discussion and the contamination of legal approaches amongst different legal systems, with the aim of promoting exchanges and dialogues between legislators, judges and legal scholars.

II. Justifying copyright ... and expanding its boundaries as well?

Before addressing the issue of whether new and non-conventional works can be eligible for copyright protection, we first need to analyze the historical rationale behind copyright protection as well as the applicability of traditional principles of copyright to such creations.

Copyright was introduced three centuries ago, first in the UK, in response to the advent and rapid evolution of printing technology.⁷ It is nowadays a tool aimed to prevent works from being copied, communicated and distributed.⁸ Past and present experience demonstrates that the creation of literary, artistic and scientific works plays an essential role, not only in developing culture but also in spurring economic growth:⁹ indeed, economists suggest that the accumulation of knowledge is the driving force behind economic advancement.¹⁰

Countries with common law traditions - in particular the US - view copyright as a way to encourage the creation of works: this is the utilitarian and incentive-focused function of this intellectual property right, based on the belief that people need the lure of strong monopolistic

⁷ See amongst many Elizabeth Eisenstein, *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe* 27-29, 36 (1979); Gillian Davies, *Copyright and the Public Interest* 14 (2d ed. 2002).

⁸ See e.g. Lyman Ray Patterson, *Copyright in Historical Perspective* (1968); Daniel Burkitt, *Copyrighting Culture: The History and Cultural Specificity of the Western Model of Copyright*, 2 *Intell. Prop. Q.* 146 (2001); Christopher May, *The Venetian Moment: New Technologies, Legal Innovation and the Institutional Origins of Intellectual Property*, 20 *Prometheus* 159 (2002).

⁹ See Kamil Idris, *International Intellectual Property: Introduction*, 26 *Fordham Int'l L.J.* 209, 210 (2003).

¹⁰ See Paul Romer, *Increasing Returns and Long-Run Growth*, 94 *J. Pol. Econ.* 1002 (1986).

rights to come up with new creations, as without such prospect “the Progress of Science and useful Arts” would not be promoted (as stressed in Art. I, § 8, of the US Constitution).¹¹ Yet, although accepted by several scholars and commentators, the belief that copyright stimulates new creations is also often empirically questioned, especially when it comes to the experience of early career artists and creators. An interesting book by Professor Jessica Silbey,¹² for example, challenged the conventional wisdom related to defining the utilitarian function of copyright: highlighting the interviews she had with as diverse creators as musicians, filmmakers, writers, painters, sculptors, photographers, web designers and software engineers, Professor Silbey realised that what pushes people to create often is not the hope to get copyright or other intellectual property rights, but the pursuit of personal and professional pleasure and freedom within communities of influence.¹³

Thus, taking into account the (non-copyright-related) motivations which often push creators to come up with new works, it may be more tempting to justify copyright by invoking aspects related to authors’ ingenuity and personality. These approaches, often linked to well-known theories developed by the philosophers John Locke (the labor theory of property¹⁴ as well as the knowledge theory¹⁵) and Friedrich Hegel (personality theory of property),¹⁶ are adopted in civil law jurisdictions, such as France, Germany, Spain and Italy, which grant artists, writers and creators in general exclusive rights because the protected works constitute the fruits of

¹¹ For a debate on whether copyright can be or not considered a monopoly in the ordinary sense of the word or rather a merely right to prevent others from copying, see e.g. Catherine Seville, *Literary Copyright Reform in Early Victorian England: The Framing of the 1842 Copyright Act* 28,30 (1999) (examining copyright antagonists’ view that copyright is a monopoly).

¹² Jessica Silbey, *The Eureka Myth – Creators, Innovators, and Everyday Intellectual Property*, Stanford University Press (2014).

¹³ See Silbey, *The Eureka Myth*, supra note 12, at 53. For an even more critical view of intellectual property regimes, including copyright, see Michele Boldrin and David K. Levine, *Against Intellectual Monopoly* 5 (2008) (arguing that “intellectual property is an unnecessary evil” and “a residual of the middle ages”).

¹⁴ See John Locke, *The Second Treatise on Government* (1690) §§ 25-51, 123-26 (noting that “Though the earth, and all inferior creatures, be common to all men, yet every man has a property in his own person: this no body has any right to but himself. The labour of his body, and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property”).

¹⁵ See John Locke, *An Essay Concerning Human Understanding* (Peter H. Nidditch ed., Oxford Univ. Press 1975) (1690) (examining the nature of knowledge and the ability of men to analyze and understand it). In post-industrial society, information and knowledge are indeed considered as the crucial elements: “[w]hen knowledge becomes involved in some systematic form in the applied transformation of resources (through invention or social design), then one can say that knowledge, not labour, is the source of value.” See Daniel Bell, *The Social Framework of the Information Society*, in *The Microelectronics Revolution: The Complete Guide to the New Technology and its Impact on Society* 500, 506. (T. Forester ed. 1980).

¹⁶ See Friedrich Hegel, *Philosophy of Right*, book first published in 1821.

their personal efforts¹⁷ and reflect their persona.¹⁸ Basically, the painting, the poem, the musical work, represent who the author or artist is, to the extent that a work belongs to its creator because the idea is a manifestation of the creator's personality or self.¹⁹ The wording used in civil law countries to define this intellectual property right speaks volumes: not copyright, or the right to copy, but "author's law": *Urheberrecht* in German, *droit d'auteur* in French, *derecho de autor* in Spanish, *diritto d'autore* in Italian and *direito de autor* in Portuguese.

Approaches that justify copyright based on authors' labor or personality theories, or even on natural and human rights' theories (which shares similarities with the former as they also focus on the relationship between a human being and his/her creation),²⁰ seem more capable of expanding the boundaries of the copyrightable subject matter. Indeed, copyright systems based on such theories can protect creativity "from potential attacks by an utilitarian analysis that would recognize property only contingently insofar as it furthers society's goals of ... wealth maximization",²¹ and offer arguments "that property, in general, and intellectual property, specifically, must be recognized by a just state, regardless of efficiency considerations".²² That would inevitably open the door to, and welcome into the realm of copyright, new and non-conventional works that might instead be excluded by regimes based mainly on utilitarian principles.

Indeed, while many creative communities mentioned in this article do operate without any economic incentive, artists and authors therein may often cherish the idea of just their persona, honour or reputation being protected. In other words, they may be interested in what moral

¹⁷ Lockean justifications have also sometimes been invoked in the US. For example, in 1984 the US Supreme Court cited John Locke's labor theory of property when finding that intangible products of an individual's labor and invention can be property: see Wendy J. Gordon, A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property, 102 Yale L. J. 1533, 1540 (1993) (citing *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002-03 (1984)).

¹⁸ In his book *Philosophy of Right*, Hegel made the point that that intellectual creations are an extension of the author's personality, self and will and should, therefore, be accorded property rights. The personality theory of property was more recently further developed by law scholar Professor Margaret Radin in her article "Property and Personhood", published in the *Stanford Law Review*, 34 (1982), 957-1015 (noting that there are some kinds of things in which we invest so much time and energy and to which we become so attached that we see ourselves reflected in them").

¹⁹ See also Justin Hughes, *The Philosophy of Intellectual Property*, 77 *Geo. L.J.* 287 (1988), pp. 306 and 330 (also noting that "it is possible to treat the value-added theory as a normative proposition: people should be rewarded for how much value they add to other people's lives, regardless of whether they are motivated by such rewards").

²⁰ On a human and natural right focused theory of intellectual property, see Janewa Osei Tutu, Corporate 'Human Rights' to Intellectual Property Protection, *Santa Clara Law Review*, 2015, Vol. 55 p. 129 (contextualising the natural rights of creators within the broader frameworks of human rights law). See also Andreas Rahmatian, *Copyright and Creativity: The Making of Property Rights in Creative Works* 5 (2011) (focusing on the well-known 'Romantic author' critique as a sophisticated justification for copyright protection). See also Peter K. Yu, Reconceptualizing Intellectual Property Interests in a Human Rights Framework, 40 *U.C. Davis L. Rev.* 1039, 1081-83 (2007); Peter Drahos, Intellectual Property and Human Rights, *I.P.Q.* 349 (1999) (critically focusing on the categorization of IP rights within the broader set of human rights).

²¹ Jeanne L. Schroeder, Unnatural Rights: Hegel and Intellectual Property, 60 *U. Miami L. Rev.* 453 (2006) (expanding in particular on the Hegelian personality theory).

²² *Ibidem*.

rights in most jurisdictions offer, including the rights of paternity and integrity, which - as is known - aim at safeguarding the personal sphere of artists and authors. Here, self-regulatory mechanisms normally used in these communities (so-called “social norms”) may often not adequately satisfy the interests of creators. That is why an attraction of new and non-traditional works under the copyright umbrella may do justice to the intellectual efforts and passion many artists and authors put in the creative process of producing works.

New and non-conventional creators may even become interested in some forms of economic reward, especially after their works is appropriated by someone else for profit purposes (an economic reward that evidently could be secured by invoking copyright). Such interest in, and reliance on, copyright would come *after* the relevant work is created and even more *after* it is misused by third parties for economic reasons, which excludes here any relevance of the utilitarian theory.

But even where the incentive-based theory of copyright is fully accepted, it could still be argued that many new and non-traditional creators mentioned in this article (e.g. graffiti, sports movements, dj-sets, culinary presentations, jokes, magic tricks, works created by artificial intelligence and engineered DNA) could be attracted by copyright regimes, especially if authors and artists are properly educated about how this intellectual property right could help them in extracting value out of their outputs.²³ Thus - for example - granting copyright protection to graffiti or tattoos can help to support the development of character merchandising markets and public performances or displays or other uses of these forms of art. Likewise, chefs may benefit from copyright in their food presentations as the latter would allow them to extract profits, for instance from the publication of cookbooks incorporating images of their creations. The same is true of magicians, who may start nurturing interests in using their tricks in recorded performances to be then included in DVDs or other supports. If such artists and authors are fully aware of what copyright can bring them in terms of economic benefits and of its very nature and aim (for example, a legal tool which can help to make a living), their approach towards this intellectual property right may become more welcoming.

²³ See generally Enrico Bonadio – Nicola Lucchi, Non-Conventional Copyright – Do New and Atypical Works Deserve Protection? (Elgar 2018). See also Xiyin Tang, Copyright in the Expanded Field, 42 Hofstra L. Rev. 945 (2014); Celia Lerman, Protecting Artistic Vandalism: Graffiti and Copyright Law, 2 NYU J. Intell. Prop. & Ent. L. 295, 316 (2013); Janna Brancolini, Abracadabra! - Why Copyright Protection For Magic Is Not Just An Illusion, 33 Loy. L.A. Ent. L. Rev. 103 (2013); Loren J. Weber, *Something in the Way She Moves: the Case for Applying Copyright Protection to Sports Moves*, 23 COLUMBIA-VLA JOURNAL OF LAW & THE ARTS 317-361 (2000); Charles Cronin, Genius in a Bottle: Perfume, Copyright, and Human Perception, 56 J. Copyright Soc’y U.S.A., 427 (2009).

Economic motivations could also soon push biotechnology entrepreneurs to possibly look at copyright regimes to recoup the (often huge) investments needed in this field.²⁴ It is true that legal scholars have initially criticized an expansion of copyright so as to include DNA sequences into the subject matter based on the fact that the economic rationale can be considered not sufficiently strong.²⁵ Yet, such expansion may now be seen as less questionable, particularly in light of the current status and uncertain future of gene patenting after the (quite restrictive) US Supreme Court decisions reforming the patentable subject matter doctrine.²⁶ Similarly, one may note that copyright should not be available for AI-created works as economic incentives are here not necessary to stimulate machines to generate musical, literature or artistic outputs since machine themselves have to pay no bills. Yet, the argument that such works should be left in the public domain²⁷ would end up paying no justice to who has invested financial resources to develop this highly creative technology.

After wondering whether new and non-traditional works *should* be protected by copyright (and briefly commenting on the possible changing attitude of creative people and entities vis-a'-vis this right), the article will now address the issue of whether such creations *can* actually attract that protection. In particular, it will start by analysing whether new and non-traditional works could be included into copyrightable subject matter and be capable of meeting the requirements for protection.

III. Subject Matter Categorization

A first obstacle for new and non-traditional works to be protected comes from the rigid categorisation chosen by several copyright laws.²⁸ One of these is the UK Copyright Act, which

²⁴ See e.g. Christopher M. Holman, Charting the Contours of a Copyright Regime Optimized for Engineered Genetic Code, 69 Okla. L. Rev. 399 (2017); ID, Developments in synthetic biology are altering the IP imperatives of biotechnology, 17 Vand. J. Ent. Tech. L. 385 (2015); Andrew W. Torrance, Synthesizing Law for Synthetic Biology, 11 Minn. J.L. Sci. & Tech. 629 (2010); Id., DNA Copyright, 46 Val. U. L. Rev. 1 (2011); Michael D. Murray, Post-Myriad Genetics Copyright of Synthetic Biology and Living Media, 10 Okla. J. L. & Tech. 71 (2014); David Walker, Patent Protection or Copyright for Nucleic Acid Sequences? 36 The Licensing Journal 1 (2016); R. Neethu, Rekindling the debate on genetic copyright in Europe in the era of biobanks and synthetic biology, 40 Eur. Intell. Prop. Rev. 172, 176 (2018).

²⁵ See for example Pamela Samuelson, Evolving Conceptions of Copyright Subject Matter, *supra* note 2, at 83 (noting that “copyright protection to DNA sequences seems unlikely to aid the formation of markets for the reproduction and distribution of copies, the making of copyrightable derivative works, or public performances or displays of DNA sequences”).

²⁶ See *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012); *Association for Molecular Pathology v Myriad Genetics, Inc.*, 133 S. Ct. 2107, 186 L. Ed. 2d. 124 (2013) and *Alice Corp. v. CLS Bank International* 134 S. Ct. 2347 (2014) (reversing more than 30 years of case law and questioning the enforceability and validity of patents on naturally occurring genetic material).

²⁷ See Amir H. Khoury, Intellectual Property Rights for “Hubots”: On the Legal Implications of Human-Like Robots as Innovators and Creators, 35 *Cardozo Arts & Ent. L.J.* 635 (2017).

²⁸ On such categorisation see Tanya Aplin, Subject Matter, in *Research Handbook on The Future of EU Copyright*, 49, 67 (Estelle Derclaye, ed., 2009) (considering the advantages and disadvantages of both approaches).

has a closed list approach granting protection to only eight categories of works, namely literary, dramatic, musical and artistic works, films, sound recordings, broadcasts, and typographical arrangements of published editions.²⁹ Only works which happen to be within these available boxes are protected, thus creating what can be labelled as a ‘pigeon-hole’ system.³⁰ While this regime may be praised for providing legal certainty, criticisms are also voiced. First, closed list systems may leave several works unprotected, as confirmed by the British cases *Lucasfilm v Ainsworth*³¹ and *Creations Records v. News Group Newspapers*.³² While in *Lucasfilm* it was held that the helmets of the *Stormtrooper* soldiers from the *Star Wars* films were not artistic works, in *Creation Records* it was found that no copyright subsists in a specially prepared scene (consisting of a white Rolls Royce in a swimming pool of a hotel and an arrangement of other objects and props), as this scene could not be categorised as a dramatic work or as an artistic work, or sculpture, collage or work of artistic craftsmanship. These decisions were criticised. For example, it was suggested that the outcome in *Creations Records* would create an unjustifiable discrimination, and in particular offend public policy, as the intellectual and manual efforts used to come up with the scene (the ensemble of object and props was photographed, and the official picture was used as a cover for an LP album of the band Oasis) reflected a significant amount of creativity which would deserve protection.³³ Categorisation is not completely rigid, though. Take laws like the 1790 US Copyright Act³⁴ which granted protection only to a very few works such as books, charts and maps;³⁵ or the UK Statute of Anne of 1710 which covered just books. Both laws featured closed lists of copyrightable works, which have however expanded over time, through both the introduction of new subject matter into copyright laws³⁶ and a (broad) interpretation of existing categories by judges and copyright offices.³⁷ It has also been argued that current closed systems like the

²⁹ Other common law jurisdictions such as Australia and New Zealand have also adopted a closed list system.

³⁰ Tanya Aplin & Jennifer Davis, *Intellectual Property Law: Text, Cases, and Materials* 76 (2nd ed. 2013)

³¹ *Lucasfilm Limited and others v Ainsworth and another* [2011] UKSC 39 (U.K.).

³² *Creation Records v News Group Newspapers* [1997] EMLR 444 (U.K.)

³³ See Andrew Christie, *A Proposal for Simplifying United Kingdom Copyright Law*, 23 *Eur. Intell. Prop. Rev.* 26 (2001).

³⁴ Act of May 31, 1790, ch. 15, 1 Stat. 124 (repealed 1909).

³⁵ See e.g. Paul Goldstein, *Copyright*, 38 *J. Copyright Soc’y* 109, 116 (1991).

³⁶ In the US for example, after the 1790 Act, the copyrightable subject matter was expanded by the Congress by adding engravings, etchings, and prints in 1802, then musical compositions in 1831 and dramatic compositions in 1856, photographs in 1865, paintings, drawings and statuary in 1870, motion pictures in 1912, and sound recordings in 1971; see Christopher J. Buccafusco, *A Theory of Copyright Authorship*, 102 *Va. L. Rev.* 1229, 1238, 1242 (2016).

³⁷ For example, in *Burrow-Giles Lithographic Co. v. Sarony*, 111 US 53 (1884), the US Supreme Court upheld the power of Congress to extend copyright protection to photography, by holding that photographs could be considered as “writings” pursuant to Section 1(8) of the US Constitution (comparing them to engravings, etchings and prints), and noting that they embodied “the intellectual conception of the author”. Later, in *Edison v Lubin*, 122 F. 240 (3d Cir. 1903) the concept of photographs was interpreted extensively to encompass films as they were considered as moving pictures. Also, under the 1909 Act the US copyright office registered computer programs as “books”, considering them as “how to do it” books; see R. Anthony Reese, *Copyrightable Subject Matter in*

1988 UK Copyright Act might be interpreted as encompassing new forms of creative expressions not explicitly mentioned in the eight categories.³⁸ Indeed, following the *Infopaq* decision by the Court of Justice of the European Union (CJEU)³⁹ (and even after the UK leaves the EU), the UK Copyright Act might be read to reflect the EU principle that anything that constitutes an ‘intellectual creation’ should be protected, and accordingly the fact that a work does not fall within those eight categories would not exclude protection.⁴⁰

While the rigidity of closed list systems may still be tempered by lawmakers’ interventions or judicial interpretation – because the existing categories can actually operate in an open-ended manner⁴¹ – jurisdictions that have adopted open and illustrative lists of copyrightable works, such as France, Germany and Netherlands, at least in theory should leave the ‘copyright door’ more open to new and non-traditional works. For example, it is probably also due to the fact that the Dutch copyright act contains an open list that the Supreme Court in the Netherlands found that the scent of a perfume can be eligible for protection.⁴² An open list approach would, therefore, have the advantage of injecting greater flexibility into the system and aim at guaranteeing comprehensiveness of protection; and new works will not be denied protection merely because they do not fall within any category of the list.⁴³ What the US Congress noted when passing the 1976 Act and justifying the open list of protectable works it includes, is quite eloquent and relevant here: “[a]uthors are continually finding new ways of expressing themselves, but is impossible to foresee the forms that these new expressive methods will take”.⁴⁴

the ‘Next Great Copyright Copyright Act’, supra note 1, at 1519. And in the UK “printed sheet music” was considered as included in the sub-category of books in *Bach v Longman (1777)* 98 Eng Rep. 1274, 1275 (K.B.).

³⁸ See Lionel Bently and Brad Sherman, *Intellectual Property Law* 60-61 (4th Ed., 2014).

³⁹ Case C-5/08, *Infopaq Int’l A/S v. Danske Dagblades Forening*, 2009 E.C.R. I-6569 (setting out the EU originality standard for copyright protection).

⁴⁰ See the UK case *SAS Institute Inc. v. World Programming Ltd* [2013] EWHC 69 (Ch), [27]. At the time of writing it cannot be ruled out that the UK, even after leaving the EU, will still need to observe several laws governing the EU single market, including copyright-related directives and CJEU decisions. And even in case of departure of the UK from EU single market rules, the ‘intellectual creation’ test for copyright subsistence might still be kept by British courts.

⁴¹ Tanya Aplin, *Copyright in the Digital Society: The Challenges of Multimedia* 249 (2005). See also the recent decision of the English High Court in *Banner Universal Motion Pictures Ltd v Endemol Shine Group Ltd & Anor* [2017] EWHC 2600 (Ch), which suggests that the format of a TV game show or quiz show can be protected by copyright as a dramatic work.

⁴² See *Kekofa BV Lancome Parfums et Beauté et Cie SNC* [2006] ECDR 26.

⁴³ See Tanya Aplin, *Subject Matter*, in *Research Handbook on The Future of EU Copyright*, 49 (Estelle Derclaye, ed., 2009). An extensive and non-exhaustive list of works is also provided by Article 2(1) of the Berne Convention (Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, S. Treaty Doc. 99-27, 1161 U.N.T.S. 3 (amended Sept. 28, 1979) (hereinafter also: Berne Convention), which clarifies that the expression “literary and artistic works” includes “every production in the literary, scientific and artistic domain”.

⁴⁴ 1976 House Report No. 94-1476, at 51 (also noting that “[t]he history of copyright law has been one of gradual expansion in the types of works accorded protection ... The historic expansion of copyright has also applied to forms of expression which, although in existence for generation or centuries, have only gradually come to be recognized as creative and worthy of protection”).

Yet, the propensity for ‘categorisation’ has remained even in countries that have adopted open list systems. In the US, for instance, new works like computer programs and video games were considered copyrightable since they had been deemed as falling within already identified categories of subject matter (literary and/or audiovisual works),⁴⁵ and not because they had been treated as original works of authorship belonging to a new category.⁴⁶ That categories of copyrightable subject matter remain relevant in the US copyright system has led some commentators to argue that the list provided by the act is effectively a closed one.⁴⁷ Also, grey areas surrounding the scope and width of these categories remain. Take the lack of definition of choreographic works and pantomimes within the current US copyright Act; and the ambiguity such lack has created in relation to, for example, the protectability of sports moves as choreographic works and of magicians’ performances of tricks as pantomime.⁴⁸ The state of uncertainty created by such grey areas is epitomized by the ‘rule of doubt’ certificates occasionally issued by the US copyright office in relation to unconventional subject matter. These certificates show the office’s skepticism about the copyrightability of a certain work but give applicant an opportunity to convince courts that the claimed subject matter is indeed protectable.

All in all, as we have seen, whether jurisdictions provide for ‘pigeon-hole’ and closed list systems or not may not make a big difference in many circumstances – with some non-traditional forms of creativity possibly getting copyright protection anyway.

IV. Originality

Falling within the copyrightable subject matter is not enough. Whether or not forms of creativity can be protected also depends on whether the work meets a sufficient level of originality. Although the Berne Convention does not explicitly state that copyrightable works must be ‘original’, most countries do provide so.⁴⁹ The originality test varies across jurisdictions, ranging from the US law ‘minimal degree of creativity’ test (as affirmed in

⁴⁵ The definition of “computer program”, for instance, was added in 1980 by the US Congress to 17 U.S.C. § 101. This legislative intervention, and a court decision in *Apple v. Franklin* in 1983, clarified that the Copyright Act treated computer programs as literary works.

⁴⁶ See Aplin, *Copyright in the Digital Society*, supra note 32.

⁴⁷ See, e.g., Antony R. Reese, *What should copyright protect? In What if We Could Reimagine Copyright?* 111, 128-29 (R. Giblin and K. Weatherall eds. 2017); Xiyin Tang, *Copyright in the Expanded Field*, 42 *Hofstra L. Rev.* 945 (2014) (analyzing the question of copyright protection for land art). See also (again) the 1976 House Report No. 94-1476, at 51, stressing that the 1976 US Copyright Act does not aim to “allow unlimited expansion into areas completely outside the present congressional intent”.

⁴⁸ See R. Anthony Reese, *Copyrightable Subject Matter in the “Next Great Copyright Act*, supra note 1, at 1526.

⁴⁹ See Elizabeth F. Judge and Daniel Gervais, *Of Silos and Constellations: Comparing Notions of Originality in Copyright Law* 27 *Cardozo Arts & Ent LJ* 375, 399 (2009) (comparing the application of originality standards in different jurisdictions).

Feist v. Rural)⁵⁰ to the EU ‘intellectual creation’ requirement⁵¹ and the UK ‘skill, labour and judgment’ test.⁵² Despite such differences, the originality threshold has traditionally been low in many countries.⁵³

Requiring that copyrightable works simply be authors’ intellectual creations or the result of minimum level of creativity may make the categorization of eligible subject matter less relevant. The CJEU decisions which affirmed the copyrightability of works such as 11-words extracts from protected newspapers,⁵⁴ a user interface in a computer program,⁵⁵ or simple portrait photographs,⁵⁶ seem to confirm it. In light of such case law - as mentioned above - it could be argued that where there is an intellectual creation, it is unnecessary to further categorise it as a particular type of work in order to consider it copyrightable. Whereas these findings may not particularly affect those EU countries that have an open-ended list approach, it may instead push jurisdictions like UK (even after Brexit)⁵⁷ to expressly drop their closed list system and link the concept of work to originality.⁵⁸ This would not really come as a big surprise as also the *travaux préparatoires* for the (Berne Convention) Brussels Revision Conference of 1948⁵⁹ indicated that the requirement of ‘intellectual creation’ is implicit in the concept of “literary and artistic work”.⁶⁰

Against this backdrop, we now consider whether various non-conventional works are capable of satisfying originality tests in several jurisdictions. We give here examples of forms of creativity as diverse as graffiti artworks, sports moves, dj-sets and food presentations.

Graffiti artists – known within their subculture as ‘writers’⁶¹ paint names and letters on various urban surfaces, such as tube and railway trains as well as walls. While most graffiti artworks which display highly creative and intricate forms of writing are certainly original, one

⁵⁰ *Feist Publications, Inc., v. Rural Telephone Service Co.*, 499 U.S. 340 (1991).

⁵¹ *Infopaq v Danske*, C-5/08, supra note 30. In this case, the CJEU found that anything that constitutes an intellectual creation should be protected by copyright.

⁵² On the impact of *Infopaq* on the original UK ‘skill, labour and judgment’ test see Andreas Rahmatian, *Originality in UK Copyright Law: The Old ‘Skill and Labour’ Doctrine Under Pressure* (2013) [IIC - International Review of Intellectual Property and Competition Law](#), Volume 44, Issue 1, pp 4–34.

⁵³ See for example Eleonora Rosati, *Originality in EU Copyright: Full Harmonization through Case Law 169* (2013) (noting how - under the German and other continental European countries’ copyright law - the originality requirement is based on a relaxed threshold).

⁵⁴ See again *Infopaq v Danske*, C-5/08, supra note 30.

⁵⁵ See Case C-393/09 *Bezpečnostní softwarová asociace – Svaz softwarové ochrany v Ministerstvo kultury*, 2010 E.C.R. I-13971.

⁵⁶ See Case C-145/10, *Painer v. Standard Verlags*, 2011 E.C.R. I-12533,

⁵⁷ See Lionel Bently and Brad Sherman, supra note 29.

⁵⁸ On the CJEU case law suggesting that the notion of “originality” and “work” conflate see Eleonora Rosati, *Originality in EU Copyright*, supra note 30.

⁵⁹ Brussels Revision, done on June 26, 1948, 331 U.N.T.S. 217.

⁶⁰ Sam Ricketson and Jane Ginsburg, *International Copyright and Neighbouring Rights: The Berne Convention and Beyond* § 8.03 (2006).

⁶¹ See e.g. Walter J. Ong, *Subway Graffiti and the Design of the Self*, in *The State of Language* 400, 401 (Christopher Ricks and Leonard Michaels ed. UC Berkeley Press, 1990) (noting that Graffiti artists refer to themselves not as artists or painters but as ‘writers’).

may note that the so-called “tags” lack a sufficient level of originality, and in general are too trivial to attract copyright protection. What are tags? They are basically street signatures and are often executed in condensed calligraphic form (yet, they are often considered by members of the general public to be mere scrawling which visually pollute our cities).

It seems there is an increasing interest within graffiti communities in protecting tags and other writers’ signatures. For example, when taking legal action against McDonald’s and their attempt to capitalise on graffiti lettering, the partner of the deceased graffiti artist Dash Snow tried to rely on copyright to stop the food chain giant to commercially exploit the artist’s bubble style letters,⁶² and also registered the work with the US Copyright Office.⁶³

So, can tags be considered original for copyright purposes? If originality is assessed by people inside the graffiti subculture, it is likely that many tags may be deemed original. Indeed, graffiti writers continuously develop and perfect their own lettering style: a style which derives from countless hours of perfecting the image, even if the final image may appear to members of the general public less than perfect.⁶⁴ Even tags which to an untrained eye and outside the graffiti scene happen to seem as banal, meaningless and always similar may be considered sufficiently original instead. And in copyright law originality should be assessed taking into account a specialised audience,⁶⁵ which in this case would be the graffiti communities whose members are able to distinguish and appreciate differences and peculiarities, what people outside these circles and without knowledge of subcultural artistic processes cannot do.

Also, the support on which tags are inserted and viewed (for example, a shop shutter or a rubbish bin) may influence the assessment of their originality. Instinctively, and perhaps wrongly, one may be more inclined to recognize the same graffiti signature as being artistic if she sees it on a canvas or a print. Yet, such assessment would be biased as it would be based on a prejudice, namely that only certain objects can be the support of artistic outputs. This is not correct also taking into consideration that the medium on which works are placed is not conclusive for the purposes of copyright subsistence.

Sports moves may also be relevant here. One may think about the American basketball player Bob Cousy’s behind-the-back pass in basketball; or the German figure skater Werner Rittberger’s loop jump in ice skating.⁶⁶ Could these moves be protected, for example as

⁶² Jade Berreau v McDonald’s Corporation, complaint filed on 3 October 2016 at the US District Court Central District of California, Western Division. The legal action, however, was not successful on procedural grounds.

⁶³ Registration No VAu001269764, filed on 17 September 2016.

⁶⁴ Mark Halsey & Alison Young, “Our Desires Are Ungovernable”: Writing Graffiti in Urban Space, 10 *Theoretical Criminology* 275, 294 (2006).

⁶⁵ Marta Iljadica, *Copyright Beyond Law – Regulating Creativity in the Graffiti Subculture* 152 (2016).

⁶⁶ Péter Mezei, *Copyright Protection of Sport Moves, in Non-Conventional Copyright – Do New and Atypical Works Deserve Protection* 271 (E. Bonadio and N. Lucchi eds. 2018).

choreographic works, where substantial creativity exists on the athletes' and their trainers' side? Recent scholarly work has gradually become more open to accepting the idea of choreographies in aesthetic or routine-oriented sports, like figure skating, synchronized swimming or wrestling, potentially satisfying the threshold of originality.⁶⁷ In particular, these sports are characterized by an elevated level of freedom for athletes to express their creativity and personality and thus to 'create' sports moves or the combination thereof that might meet the originality requirement. Some scholars have interestingly noted that "[a]thletic routines exhibit composite creativity",⁶⁸ where individual elements of the choreography—like the different (and compulsory) elements (jumps, spins, creative skate-work), the selection of music, costume, make-up—may not warrant copyright protection on their own, yet the creative combination of these elements may surpass the level of originality and thus should be protected as a choreographed piece or dramatic production.⁶⁹

What about dj-sets? They can be defined as sequences of musical tracks mixed together to look like a unique continuous track.⁷⁰ They are performed using a mixer and multiple sounds sources, such as turntables spinning vinyls, CD players or computer sound cards.

It cannot be denied that disk jockeys often display genuine artistic creativity in compiling and executing the set and that their compilations can be considered original. Here the issue is whether play lists created by disk jockeys, either at parties or for radio stations, may be protected by copyright as original selections and arrangements of songs. In a recent British case, the dance record label Ministry of Sound launched a legal action against the streaming service Spotify claiming that playlists distributed on the music streaming service had copied its compilation albums. Spotify argued that Ministry had substantially overestimated the creative process behind creating its music compilations and that the concepts were simple and banal themes.⁷¹ The case was eventually settled out-of-court. But it does not seem heretic to argue that a dj-set would constitute a collection of works protectable for example under the EU Database Directive, which accord copyright protection to "databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation".⁷²

⁶⁷ See e.g. Wm. Tucker Griffith & Ekaterina Godeeva, *Beyond the Perfect Score: Protecting Routine- Oriented Athletic Performance with Copyright Law*, 30 Connecticut L. Rev. 675 (1998); Loren J. Weber, *Something in the Way She Moves: the Case for Applying Copyright Protection to Sports Moves*, 23 Colum.-VLA J.L. & Arts 317, 361 (2000); Alexander Bussey, *Stretching Copyright to its Limits: on the Copyrightability of Yoga and Other Sports Movements in Light of the U.S. Copyright Office's New Characterization of Compilations*, 20 Jeffrey S. Moorad Sports L. J. 1, 33 (2013).

⁶⁸ Wm. Tucker Griffith & Ekaterina Godeeva, *supra* note 43, at 713.

⁶⁹ *Id.* at 713-714.

⁷⁰ Tony Fernandez, *No Matter What Kind of DJ You Are, Mixing Fundamentals Remain Valuable*, DJ Times (April 5, 2016) at <https://djtimes.com/no-matter-kind-dj-mixing-fundamentals-remain-valuable/>

⁷¹ HC13C03860 Ministry of Sound Group Ltd et al. v Spotify Ltd (2014).

⁷² See Article 3(1) of Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.

The originality requirement would probably be met if, through the selection or arrangement, the disk jockey expresses his or her creative ability in an original manner by making free and creative choices. After all, nobody can doubt about the creative skills of many disk jockeys: as has been correctly noted, why otherwise would major venues and events pay super-star disk jockeys six-figure sums to work the decks to thousands of adoring fans?⁷³

Culinary presentations are another interesting example of non-traditional form of creativity. Again, nobody can deny that chefs put effort and creativity in creating and coming up with (not only tasty, but also) eye-catching and somehow artistic dishes. Yet, food creations may have difficulty in meeting the originality standard because of the strong sharing ethos among chefs. Indeed, chefs often borrow elements from colleagues' presentations,⁷⁴ with many culinary creations today being simply based on or inspired by previous dishes and therefore not really capable of being considered independently created.⁷⁵ A case that addressed the issue whether culinary presentations can be considered original for copyright purposes is the US dispute *Kim Seng Company v. J&A Importers*.⁷⁶ It was held that a traditional bowl of Asian noodles topped with egg rolls, grilled meat, and other garnishes (basically, a combination of a common bowl with the contents of a common Asian dish) was routine and therefore not original.⁷⁷ The judge found in particular that "regardless of which angle, quantity, or positioning of the various food items [the plaintiff] utilized, the unprotectable nature of the ingredients indicates a lack of originality".⁷⁸

Thus, whether or not works of the kind we are taking into account here should be considered original for copyright purposes may often depend on specific circumstances, to be assessed carefully by judges if litigations arise.

V. Fixation

As copyright protects just expressions of ideas, and not ideas themselves, in several jurisdictions copyrightable works need to be fixed in a tangible medium.⁷⁹ Indeed, despite the Berne Convention protects "literary and artistic works...., whatever may be the mode or form

⁷³ See Tom Iverson, *Original Compilations of Musical Works: Can DJ Sets Be Protected by Copyright?*, in *Non-Conventional Copyright – Do New and Atypical Works Deserve Protection 201* (E. Bonadio and N. Lucchi eds. 2018).

⁷⁴ Cathay Y. N. Smith, *Food Art: Protecting "Food Presentation" Under U.S. Intellectual Property Law*, 14 *J. Marshall Rev. Intell. Prop. L.* 1, 2 (2014).

⁷⁵ *Id.*

⁷⁶ *Kim Seng Company v. J&A Importers, Inc.* 810 F. Supp.2d 1046, 1053-54 (C.D. Cal. 2011).

⁷⁷ See Cathay Y. N. Smith, *supra* note 50.

⁷⁸ *Id.* at 1053.

⁷⁹ See also Megan M. Carpenter, *If it's Broke, Fix It: Fixing Fixation* 39 *Colum. J.L. & Arts* 355 (noting that fixation "is often the judicial threshold over which idea becomes expression").

of its expression”,⁸⁰ it also allows countries to determine that works are ineligible for protection “unless they have been fixed in some material form.”⁸¹ The fixation requirement is thus allowed by Berne – and while copyright laws such as the US and UK statutes have incorporated it, others have not (this is the case of several civil law jurisdictions).⁸²

That said, what should be verified is whether certain copyright regimes are too obsessed with the tangible and physical embodiment requirement, especially when it comes to new art forms. More particularly, do contemporary copyright laws remain very much focused and dependent on a specific concept of medium purity?⁸³ Are these laws still focused, for example, on a kind of traditional art which is just displayed in museums and dependent on judges’ subjective aesthetic judgments about what can be considered “artistic”,⁸⁴ with the result that many pieces of contemporary art may be excluded from protection?

Interesting cases have highlighted how a rigid application of the fixation requirement may leave new forms of art without protection. In the US case *Kelley v Chicago Park District*⁸⁵ it was held that the garden *Windflower Works* - an important example of landscape art devised by Chapman Kelley - lacked the kind of stable fixation normally required to support copyright: “a garden is simply too changeable to satisfy the primary purpose of fixation; its appearance is too inherently variable to supply a baseline for determining questions of copyright protection”.⁸⁶ A not very different outcome occurred in the British case *Merchandising Corporation of America v Harpbond*,⁸⁷ where it was found that the facial make-up of the pop artist Adam Ant did not constitute a painting for the purpose of copyright (“if the marks are taken off the face there cannot be a painting. ... a painting without a surface is not a painting”). This finding attracted criticism.⁸⁸ It has been noted that it is difficult to see why a pop star’s face is less of a surface than a piece of canvas, and could not be protected by copyright.⁸⁹ Subsequent UK case law, however, was less strict and seemed to have made the transient or

⁸⁰ Berne Convention, Article 2, Sec. 1.

⁸¹ See Berne Convention, art. 2(2) (“It shall, however, be a matter for legislation in the countries of the Union to prescribe that works in general or any specified categories of works shall not be protected unless they have been fixed in some material form.”).

⁸³ See Xiyin Tang, Copyright in the Expanded Field, 42 Hofstra L. Rev. 945, 948 (2014).

⁸³ See Xiyin Tang, Copyright in the Expanded Field, 42 Hofstra L. Rev. 945, 948 (2014).

⁸⁴ See Anne Barron, Copyright Law and the Claims of Art, 4 Intell. Prop. Q. 368, 371 (2002).

⁸⁵ *Kelley v Chicago Park District* 635 F.3d 290, 303 (7th Cir. 2011).

⁸⁶ Id.

⁸⁷ *Merchandising Corp. of America Inc. & ors v. Harpbond Ltd & ors* [1983] FSR 32.

⁸⁸ See also Anne Barron, Copyright Art and Objecthood, in *Dear Images: Art Copyright and Culture*, 277, 293, 304 (Daniel McLean and Karsten Schubert, eds., 2002) (noting that art practices nowadays are often based on “the dematerialization of the art object: the production of art that yielded no object; or in which process, context-dependence, chance or randomness [are] prioritised over form”).

⁸⁹ See Bently and Sherman, *supra* note 29, at 73-74. In the US make-up designs have been considered as satisfying the fixation requirement, instead: see *Carell v. Shubert Org., Inc.*, 104 F.Supp.2d 236 (S.D.N.Y. 2000) (holding that make-up designs for the characters in the Broadway show “Cats” were copyrightable).

Deleted: ¶

permanent fixation of the work on a surface a less important issue. In *Metix v G.H. Maughan*⁹⁰, for instance, it was suggested that an ice sculpture, although obviously not permanent, should in principle be protected as a three-dimensional work made by an artist's hand.⁹¹ What *Metix* entails is that not just a permanent materialization, but also an ephemeral fixation, of the tangible medium would suffice for copyright subsistence purposes.

Also, what about graffiti artworks painted in the street? Most of them are ephemeral as they disappear relatively promptly. They may be removed from the owner of the property upon which they are placed; they may be painted over by local councils that want to keep clean the neighbourhood; or they may end up being vandalized. These artworks may also deteriorate and eventually vanish just because of the passing of time and weather elements. Could the transient nature of this form of art be an obstacle that prevents its copyright protection? Most probably no. For example, under US law the fixation requirement only demands that the work is "sufficiently permanent or stable" in order to allow it "to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration".⁹² Although street and graffiti artworks may not last for a long time, their temporary existence – even for a few hours – appears to be sufficient to satisfy this requirement.⁹³

The same reasoning could be applied to food preparations. The decision in the above-mentioned case *Kim Seng Company v. J&A Importers*⁹⁴ – which held the bowl of perishable food as lacking fixation because once the food is eaten, it is basically gone – has been criticised. As has been noted, "copyright protection does not degrade in conjunction with the degradation of its subject works";⁹⁵ and that even if an artwork is destroyed after being created, it should still be considered as protected by copyright and not as fallen into the public domain merely because the physical embodiment is destroyed.⁹⁶

More problematic issues of fixation have recently arisen in relation to a more esoteric matter, namely the taste of a cheese. In the recent *Levola* case the CJEU held that said taste cannot be protected by copyright because it is not identifiable with sufficient precision and objectivity⁹⁷

⁹⁰ *Metix (UK) Ltd v G.H. Maughan (Plastics)* [1997] FSR 718.

⁹¹ See also Lionel Bently and Brad Sherman, *supra* note 29.

⁹² 17 U.S.C. § 101 provides that a work is fixed when its embodiment "is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."

⁹³ See Cathay Y. N. Smith, *Copyright in Culinary Presentation, in Non-Conventional Copyright – Do New and Atypical Works Deserve Protection* 128 (E. Bonadio and N. Lucchi eds. 2018) (making a similar point in relation to food creations, and noting that such creations are fixed for a period more than a transitory duration when they are first made).

⁹⁴ *Kim Seng Co. v. J&A Importers, Inc.*, 810 F.Supp.2d 1046, 1053 (C.D. Cal. 2011).

⁹⁵ See Megan Carpenter, *If It's Broke, Fix It: Fixing Fixation*, 39 *Colum. J.L. & Arts*, 355, 360 (2016).

⁹⁶ See Cathay Y. N. Smith, *supra* note 81.

⁹⁷ See C-310/17 *Levola Hengelo BV v Smilde Foods BV*, Judgment of the Court (Grand Chamber) of 13 November 2018, ECLI:EU:C:2018:899. For an early comment of this decision, see e.g. Léon Dijkman, *CJEU rules that taste of a food product is not protectable by copyright*, 14 *J. Intell. Prop. L. & Practice* 85 (2019).

(the court did not explicitly mention the fixation requirement, but such a finding may inevitably be interpreted as introducing a harmonised de facto fixation condition).⁹⁸ In doing so, the Court followed the opinion of the Advocate General Melchior Whatelet that – after arguing that originality is necessary but not sufficient for copyright protection – noted that the fact that tastes are ephemeral, volatile and unstable prevents them from being precisely and objectively identified and thus considered copyrightable works.⁹⁹ In particular, the Court held that “Unlike, for example, a literary, pictorial, cinematographic or musical work, which is a precise and objective expression, the taste of a food product will be identified essentially on the basis of taste sensations and experiences, which are subjective and variable”.¹⁰⁰ The court also noted that the only categories of works included in the definition given by the Berne Convention (“every production in the literary, scientific and artistic domain”)¹⁰¹ are those that can be perceived through sight or hearing, but not other senses such as taste, smell or tactile sense.¹⁰² In addition, it stressed that – given the difficulty of capturing the evanescent and fleeting character of taste as well as its very subjective experience – a defined and neutral identification of a taste is almost impossible. The main argument that the mere creation of a distinctive taste lacks legal certainty seems quite convincing. This decision might call into question the copyrightability of other subject matter such as scents, although this has been objected in light of the fact that it would be easier to digitally render smells.¹⁰³ After all, that smells are eligible for copyright protection has already been acknowledged by the Dutch Supreme Court decision in the *Lancôme* case.¹⁰⁴ It should also be noted that in *Levola* the Advocate General did not seem to rule out the possibility that copyright law might develop in the future when new techniques will be able to offer a precise and objective identification of the object of protection.¹⁰⁵ Also, the very same Court noted that the reason why the taste of cheese is neither precise nor objective derives from the current state of scientific development.¹⁰⁶

⁹⁸ See Caterina Sganga, *The Notion of ‘Work’ in EU Copyright Law after Levola Hengelo: One Answer Given, Three Question Marks Ahead* (2019) *European Intellectual Property Review*. .

⁹⁹ See *Levola Hengelo* (Case C-310/17), Opinion of 25 July 2018, para. 60. From the above comment, it seems clear that a fixation-related issue has been raised, although the Advocate General took the pain to stress that EU copyright law does not provide a fixation requirement (para 59).

¹⁰⁰ See C-310/17 *Levola Hengelo BV v Smilde Foods BV*, supra note 98, para. 42.

¹⁰¹ See again Article 2(1) Berne Convention.

¹⁰² See C-310/17 *Levola Hengelo BV v Smilde Foods BV*, supra note 96, para 39.

¹⁰³ Dijkman, above note 98, p. 86.

¹⁰⁴ See *Kekofa BV Lancome Parfums et Beauté et Cie SNC* [2006] ECDR 26. This is however a position not shared by the French Supreme Court, which denied that scents can attract copyright: see *Cour de Cassation, Chambre civile 1*, 13 June 2006 - Case No. 02-44.718; and *Cour de cassation (Commercial Chamber)* 10 December 2013 – Case No. 11-19.872.

¹⁰⁵ See para. 57 of his Opinion (noting that “Je n’exclus pas qu’à l’avenir les techniques pour l’identification précise et objective d’une saveur ou d’une odeur puissent évoluer, ce qui pourrait amener le législateur à intervenir et les protéger au titre du droit d’auteur ou par d’autres moyens”).

¹⁰⁶ See para. 43 of the decision.

A rigid application of the fixation requirement may also leave unprotected traditional forms of artistic works. Music, for example, could be affected. This would be the case of jazz performers, especially when they come up with arrangements directly on stage and do not record their improvised performances.¹⁰⁷ The same is true of comedians as their performances may depend in large part on audience interaction, such as responding to heckles from an audience member, reading subtle cues, and adapting a pre-planned routine as the performance goes on: with the result that, if comedians fail to fix their joke, they cannot rely on copyright protection.¹⁰⁸ It could then be argued that these artistic outcomes challenge the paradigm of copyright laws that are predominantly based on the primacy of notated or fixed musical compositions or scripts.¹⁰⁹

VI. Functionality

Works that have prominent functional features may be considered uncopyrightable in several jurisdictions (in the US this is known as the “useful article” doctrine).¹¹⁰ That works must not conform to some technical necessities is a requirement which is somehow related to originality. Indeed, any work whose relevant aspects are dictated by functionalities may at the same time lack originality. Where the work also meets the requirements for patent protection, this exception serves the important policy of keeping patent and copyright regimes separate by preventing creators and innovators from relying on copyright to obtain a “backdoor patent” on a functional article that cannot be patented (or whose patent protection has expired).¹¹¹ Yet where artistic features are incorporated into a functional product (for example, a garment), these features are still eligible for protection in many countries subject to various conditions: in several jurisdictions – including the US – such artistic features are protectable provided that they are separable from the underlying product.¹¹²

¹⁰⁷ See Giuseppe Mazziotti, Music Improvisation and Copyright, in *Non-Conventional Copyright – Do New and Atypical Works Deserve Protection* 174 (E. Bonadio and N. Lucchi eds. 2018).

¹⁰⁸ See Trevor M. Gates, Providing Adequate Protection for Comedians’ Intellectual Creations: Examining Intellectual Property Norms and “Negative Spaces,” 93 *Or. L. Rev.* 801, 817 (2015).

¹⁰⁹ As far as jazz arrangements are concerned, see Mazziotti, *supra* note 88.

¹¹⁰ For a recent analysis of this doctrine, especially as applied to designs, see Shubba Ghosh, *Remapping Copyright Functionality: The Quixotic Search for a Unified Test for Severability for PGS Works*, 39 *Eur. Intell. Prop. Rev.* 90 (2017) (exploring the dilemma in identifying an appropriate test for copyright functionality).

¹¹¹ See the US case *Smith & Hawken, Ltd. v. Gardendance, Inc.*, 75 U.S.P.Q.2d 1853 (N.D. Cal. 2005).

¹¹² Under US copyright law the design of a “useful article” – namely an article with an “intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information– is not copyrightable unless it “incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article”: see 17 U.S.C. §101 (2007). In other countries requirements for protection of useful products seem less strict. In France, for example, it is accepted that an artistic expression should not be disqualified and deprived of copyright protection simply because it is fixed or embodied in a utilitarian article (this is the so-called theory of “unity of art”): see J.H. Reichman, *Design Protection in*

A wide variety of works can be affected by the functionality exception". In the above mentioned British case *Lucasfilm*, for example, it was held that the stormtroopers' helmets of Star Wars movie were not sculptures on the grounds that their purpose was primarily utilitarian, not artistic, namely to clothe the actors.¹¹³ Also, it is because of this exception that the selection, ordering, and arrangement of a Bikram yoga sequence was considered by a US court as a "process" for achieving good health, which precludes copyright protection.¹¹⁴ As the US Copyright Office also put it, "a selection, coordination, or arrangement of exercise movements, such as yoga poses, may be precluded from registration as a functional system or process in cases where the particular movements and the order in which they are to be performed are said to result in improvements in one's health or physical or mental condition".¹¹⁵

But what about other sequences, such as movements in sports like ice dancing, figure skating, synchronised swimming, skateboarding, or even wrestling? Can these moves be considered as being developed for a purely aesthetic purpose, and not as attempts to directly increase the chances of prevailing in an athletic contest (in which case they would not be functional for copyright purposes)? The crucial question here is at what juncture sporting moves may become creative pieces in their own right and thus protectable as unique artistic expressions.¹¹⁶ Generally speaking, ordinary sports moves are quite standardized, so they can be considered as commonly performed moves that serve a merely functional role in an athletic competition.¹¹⁷ Yet some moves, especially in aesthetic sports, can be considered originally conceived, choreographed and designed "by an athlete for the purpose of celebrating his or her athletic feats".¹¹⁸ For instance, a choreographic work of figure-skating with the incorporation of music and costume might be considered as not serving any functionality but sufficiently choreographic, creative and original to justify copyright protection.¹¹⁹

Analogous issues are raised by other products of human ingenuity as diverse as food preparations, typefaces and graffiti lettering.

Domestic and Foreign Copyright Law: From the Berne Revision of 1948 to The Copyright Act of 1976, 1983 Duke L.J. 1143, 1154 (1983) (illustrating the unity of art thesis in France).

¹¹³ *Lucasfilm Limited v Ainsworth* [2011] UKSC; *Lucasfilm Ltd & Ors v Ainsworth & Anor* [2008] *EWHC* 1878 (Ch); *Lucasfilm Ltd and others v Ainsworth* [2009] *EWCA Civ* 1328; *Lucasfilm Limited and others v Ainsworth and another* [2011] UKSC 39.

¹¹⁴ *Bikram's Yoga Coll. of India, L.P. v. Evolation Yoga, LLC*, 803 F.3d 1032 (9th Cir. 2015).

¹¹⁵ Registration of Claims to Copyright, 77 Fed. Reg. 37605, 37606-07 (June 22, 2012).

¹¹⁶ Péter Mezei, Copyright protection of sport moves, in *Non-Conventional Copyright – Do New and Atypical Works Deserve Protection* 271 (E. Bonadio and N. Lucchi eds. 2018).

¹¹⁷ On the copyrightability of routine-based athletics, see e.g. Wm. Tucker Griffith, *Beyond the Perfect Score: Protecting Routine-Oriented Athletic Performances with Copyright Law*, 30 Conn. L. Rev. 675 (1998).

¹¹⁸ See Henry M. Abromson, *The Copyrightability of Sports Celebration Moves: Dance Fever or Just Plain Sick?*, 14 Marq. Sports L. Rev. 571, 572 (fn12) (2004).

¹¹⁹ Alexander Bussey, *Stretching Copyright to Its Limit: On the Copyrightability of Yoga and Other Sports Movements in Light of the U.S. Copyright Office's New Characterization of Compilations* 20 Vill. Sports & Ent. L.J. 1, 23 (2013).

While one may consider recipes as functional directions for achieving a result,¹²⁰ many dishes and their visual appearance may also be determined by creative expressions independent of most functional influences and possibly attract copyright.¹²¹ This may be particularly relevant in the US, especially after the Supreme Court ruling in *Star Athletica v. Varsity Brands*,¹²² which held that the pictorial and graphics features of cheerleaders' uniforms could be applied to other medium and therefore could be protected by copyright: as has been noted, also culinary presentations that present artistic qualities independent of any functionality might now get the same protection.¹²³

What about typefaces? First, typefaces can be defined as sets of letters and numbers which are all in the same graphic style and are used in printing. What's noteworthy is that under US law typefaces are not copyrightable.¹²⁴ The reason for that is that they perform the function of building blocks of language and their aesthetic element cannot be conceptually separated from their functional element, which in this case is to graphically represent a letter of the alphabet. The lack of copyright protection for typefaces in the US has been criticised, though. Typeface designers may indeed exercise significant creativity and come up with highly artistic letters.¹²⁵ And this can occur despite the constraints of the design process, which does not just dictate the function of creating letters, but also leaves room for a significant dose of artistic genius. Making copyright available for such non-functional aspects of the letter, therefore, does not seem revolutionary.¹²⁶ After all, typefaces are considered copyrightable in countries like UK.¹²⁷

¹²⁰ See the US case *Publ'ns Int'l, Ltd. v. Meredith Corp.*, 88 F.3d 473, 481 (7th Cir. 1996) (with the court defining a recipe as "a set of instructions for making something ... a formula for cooking or preparing something to be eaten or drunk: a list of ingredients and a statement of the procedure to be followed in making an item of food or drink ... a method of procedure for doing or attaining something"). The US Copyright Office seems to confirm the exclusion by stating that mere listing[s] of ingredients or contents" are amongst the materials not subject to copyright protection: see 37 C.F.R. §202.1.

¹²¹ See also Christopher Buccafusco, *Making Sense of Intellectual Property Law*, 97 *Cornell L. Rev.* 501, 508 (2012).

¹²² *Star Athletica, L. L. C. v. Varsity Brands, Inc.* (580 U.S. 2017).

¹²³ Cathay Y. N. Smith, *Copyright in Culinary Presentation, in Non-Conventional Copyright – Do New and Atypical Works Deserve Protection* 128 (E. Bonadio and N. Lucchi eds. 2018).

¹²⁴ Code of Federal Regulations, Ch. 37, Sec. 202.1(e).

¹²⁵ Jacqueline D. Lipton, *To © or Not to ©? Copyright and Innovation in the Digital Typeface Industry*, 43 *U.C. Davis L. Rev.* 143, 155 (2009).

¹²⁶ That typefaces may have (copyrightable) artistic elements in addition to (uncopyrightable) functional features is confirmed by international law. The Vienna Agreement for the Protection of Typefaces and their International Deposit, signed in 1973 by 12 countries including UK, Germany, France, Italy and Netherlands (but never entered into force), requires typefaces to be protected by either copyright or industrial design law, or a sui generis right; and it clarifies that what cannot be protected are just typefaces of a form dictated by purely technical requirements: see Art. 2(i)(c) of the Vienna Agreement for the Protection of Type Faces and Their International Deposit and Protocol Concerning the Term of Protection, June 12, 1973, Records of the Vienna Diplomatic Conference on the Protection of Typefaces 1973, at 10 (W.I.P.O. 1980).

¹²⁷ This is indirectly confirmed by Sections 54 and 55 of the CDPA, which assume and take for granted copyright protection of typefaces. Indeed Section 54 exempts from copyright infringement certain activities in relation to what is defined as "an artistic work consisting of the design of a typeface". Section 55 uses an identical wording.

As typefaces, also letters painted by graffiti writers have often strong non-functional and artistic elements, which go beyond serving the neutral function of representing the letters themselves. Such artists develop and practice their style by individualising and transforming the alphabet, frequently making the letters and the entire word unreadable to people outside their artistic subculture. Basically, what writers paint and draw are not just letters; they are often creative image-based interpretations of the letters. It has been argued that copyright should be made available when the graffiti lettering does not only consist of alphanumeric elements, but it is also elaborate, personalized and extravagant enough to be perceived and appreciated as an artistic endeavour.¹²⁸

Another category of works that may raise functionality-related issues are tricks performed by magicians. One may note that such tricks are functional methods and systems for creating the illusions, and therefore not protectable by copyright. What for example about a device that merely appears to cut a person in half? Is this device “useful” when its only use is to entertain and create an illusion as well as evoke emotions?¹²⁹ As has been suggested, “a device that portrays a saw capable of cutting someone in half but that doesn’t actually do so is probably not utilitarian as a saw”.¹³⁰ Indeed, the primary usefulness or utilitarian function of a magic device is, in fact, to entertain an audience by creating the illusion, and the fact that a work is “useful” to entertain or to evoke emotion – the argument goes – does not make it a “useful article”.¹³¹ After all, in *Teller v Dogge* a US court accorded copyright protection to a single illusion as a “dramatic pantomime”.¹³² In that case, the famous magician Raymond Joseph Teller filed a copyright suit against Gerard Dogge, a Dutch colleague who had uploaded on YouTube videos of himself performing Teller’s performance of “Shadows”. The court found that the two works were “nearly identical twins”.¹³³ Because Teller provided persuasive evidence that he owned an original work of authorship fixed in a tangible medium and that the defendant copied original elements of Teller’s “Shadows” performance, the court granted summary judgment in favor of Teller for copyright infringement.

And what about scents and tastes? Could it be argued that “feelings equal functions” and therefore scents and tastes are not copyrightable?¹³⁴ While French case law eventually denied

¹²⁸ Nicole A. Grant, *Outlawed: Finding a Home for Graffiti in Copyright Law*, Selected Works of Nicole A. Grant, 23 (2012), available at <http://ssrn.com/abstract=2030514> (last visited December 15, 2017).

¹²⁹ See F. Jay Dougherty, *Now You Own It, Now You Don’t: Copyright and Related Rights in Magic Productions and Performances*, in *Law and Magic 101* (Christine A. Corcos ed. 2011); Janna Brancolini, *Abracadabra! - Why Copyright Protection for Magic Is Not Just an Illusion*, 33 *Loy. L.A. Ent. L. Rev.* 103 (2013).

¹³⁰ See F. Jay Dougherty, *supra* note 110, at 106.

¹³¹ *Id.*

¹³² *Teller v. Dogge*, 110 U.S.P.Q.2d 1302 (D. Nev. 2013).

¹³³ *Id.*

¹³⁴ A recent case about copyright protection of tastes is the already mentioned *Levola Hengelo* (Case C-310/17), where the Advocate General Melchior Wathelet considered a taste of a cheese as not copyrightable (although he

copyright protection for perfumes,¹³⁵ the Dutch Supreme Court found that scents are perceptible by humans, capable of having their own and original character and thus being able to attract copyright.¹³⁶ no issue of functionality was found by the court in that case.

VII. Authorship

The concept of authorship is relevant in copyright law, as without an author there cannot evidently be a copyrightable work. While the Berne Convention determines the minimum protections to be granted by countries to the works of their authors, it leaves states free to interpret the concept of authorship - and many copyright acts still do not provide a definition of authors.¹³⁷ Indeed, few judicial decisions address what authorship means, and who an author is.¹³⁸ In the US, for example, the Supreme Court has defined an author as “he to whom anything owes its origin; originator; maker; one who completes a work of science or literature.”¹³⁹ Lower courts have also noted that an author must be more than one who contributes creativity or originality to a work;¹⁴⁰ basically, it must be one “who superintended the whole work, the ‘master mind’”.¹⁴¹ In other words, authorship could be defined as a requirement that no creation that does not entail at least some degree of human intervention is eligible for copyright protection.

One may therefore legitimately doubt whether works produced without a predominant human “touch” can be considered protectable. Let us think about works such as a stylish living garden which grows by itself. This was actually one of the main issues in the already mentioned *Kelley v Chicago Park District*,¹⁴² where the court found that the garden *Wildflower Works* “lacks the kind of authorship ... normally required to support copyright.”¹⁴³ The judge stressed that the artwork in question owed its existing form to nature: “Most of what we see and experience in

did not expand on functionality related grounds). At the time of writing, the CJEU has not delivered yet its final decision.

¹³⁵ See e.g. *Bsiri-Barbir v Haarmann & Reimer Civ.* (1 re ch.), 13 juin 2006; [2006] E.C.D.R. (28) 380 (French Cour de Cassation).

¹³⁶ See *Lancôme v Kecofa* [2006] E.C.D.R. (26) 363 (Dutch Supreme Court). For an analysis of this case, see Herman Cohen Jehoram, *The Dutch Supreme Court Recognises Copyright in the Scent of a Perfume the Flying Dutchman: All Sails, No Anchor*, 28 *Eur. Intell. Prop. Rev.* 629 (2006); Catherine Seville, *Copyright in Perfumes: Smelling a Rat*, 66 *Cambridge L.J.* 49 (2007).

¹³⁷ See Jane C. Ginsburg, *The Concept of Authorship in Comparative Copyright Law*, 52 *DePaul L. Rev.* 1063, 1091-92 (2003).

¹³⁸ See *Id.* at 1066.

¹³⁹ See again *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884).

¹⁴⁰ See *Aalmuhammed v. Lee*, 202 F. 3d 1227, 1233 (9th Cir. 2000).

¹⁴¹ *Id.* (citing *Burrow-Giles Lithographic Co.*, 111 U.S. at 53, 61).

¹⁴² *Kelley v Chicago Park District* 635 F.3d 290, 303 (7th Cir. 2011).

¹⁴³ *Id.* at 304.

a garden - the colors, shapes, textures, and scents of the plants - originates in nature, not in the mind of the gardener.”¹⁴⁴

Certain legal literature has also contributed to a renewed scholarly interest in whether engineered DNA sequences could be considered copyrightable.¹⁴⁵ Obviously, one may note that this subject matter does not satisfy the authorship requirement as genetic information (again) predominantly owes its creation to the forces of nature. In other words, what could be argued is that engineered DNA sequences are essentially derived from a natural source, so that it could be difficult for copyright judges and officers to identify the author.¹⁴⁶ Yet, looking more closely into the everyday practice of biotechnologists and in particular genetic engineers is quite revealing. Products of synthetic biology, for example, involve the design and creation of “new, human-designed DNA sequences”.¹⁴⁷ More specifically, synthetic biologists design and construct artificial biological systems that do not currently exist in nature, by writing DNA sequences that instruct a cell and engineering organisms so as they can behave according to specific design specifications.¹⁴⁸ It might thus be claimed that in these cases there is an author, and that such sequences can be effectively deemed as original works of authorship.¹⁴⁹

Works created by animals (for instance, the sound of toads or frogs) are also relevant here. A US case which has attracted scholarly and media attention has dealt with whether an animal can be considered as a copyright holder. A macaque monkey had used a camera belonging to British photographer David Slater in Indonesia to take a selfie, which then became famous worldwide. The judge dismissed the argument brought by the plaintiff - an animal rights organization¹⁵⁰ - that had filed a lawsuit requesting that the monkey be assigned the copyright.¹⁵¹ The argument was that US copyright law does not prohibit an animal from owning copyright. Yet, such argument was rejected by the court which held that while the animal had

¹⁴⁴ *Id.*

¹⁴⁵ See e.g. Christopher M. Holman, Charting the Contours of a Copyright Regime Optimized for Engineered Genetic Code, 69 Okla. L. Rev. 399 (2017); ID, Developments in synthetic biology are altering the IP imperatives of biotechnology, 17 Vand. J. Ent. Tech. L. 385 (2015); Andrew W. Torrance, Synthesizing Law for Synthetic Biology, 11 Minn. J.L. Sci. & Tech. 629 (2010); *Id.*, DNA Copyright, 46 Val. U. L. Rev. 1 (2011); Michael D. Murray, Post-Myriad Genetics Copyright of Synthetic Biology and Living Media, 10 Okla. J. L. & Tech. 71 (2014); David Walker, Patent Protection or Copyright for Nucleic Acid Sequences? 36 The Licensing Journal 1 (2016).

¹⁴⁶ R. Neethu, Rekindling the debate on genetic copyright in Europe in the era of biobanks and synthetic biology, 40 Eur. Intell. Prop. Rev. 172, 176 (2018).

¹⁴⁷ See Andrew W. Torrance, Synthesizing Law for Synthetic Biology, 11 Minn. J.L. Sci. & Tech. 629, 643 (2010).

¹⁴⁸ See Natalie Kuldell et al., BioBuilder: Synthetic Biology in the Lab 1, 2 (2015).

¹⁴⁹ See Andrew W. Torrance, *supra* note 129 at 644.

¹⁵⁰ The complaint was filed by the People for the Ethical Treatment of Animals (PETA).

¹⁵¹ See *Naruto v. David John Slater*, 15-cv-04324-WHO (N.D. Cal. Jan. 28, 2016), and the subsequent appeal that was filed by PETA in March 2016. *Naruto v. David John Slater*, 16-15469 (9th Cir. Aug. 25, 2016).

constitutional standing it “lacked statutory standing to claim copyright infringement of photographs.”¹⁵²

The issue of authorship and ownership of copyright in works created by non-humans is not limited to artworks created by animals; and the debate around the required degree of human intervention in a work is not novel in copyright law. As far as computer-produced works are concerned, for instance, Australian courts have often been reluctant to affirm copyright subsistence due to a focus on requiring a human author (in other countries such as UK, Ireland and New Zealand, these works do attract copyright instead, with the author being considered the person that has made the arrangement necessary to produce the work).¹⁵³ This debate has recently been revamped in light of the rise of creations made by machines and robots without substantial human involvement: here the focus is not on whether “computers are enabling people” to create works, but on whether “people are enabling computers” to do that.¹⁵⁴ Artificial intelligence, along with ever-increasing computational capacity, may indeed turn computers into autonomous originators of works that in the old days only humans could come up with. Computers have proven to be credible generators of literary, artistic and scientific works, with no human creative intervention in the generative process,¹⁵⁵ which has spurred debate as to who should be considered the author and consequently the copyright owner: the programmer or the user of the machine, or both at the same time? (probably the answer could be given just on a case-by-case basis, after measuring the amount of creative activity made by either of them). Changes to copyright regimes may, therefore, be needed if these works are to be considered copyrightable: such changes may include relaxing the (human) authorship

¹⁵² See *Naruto v. Slater*, 2018 U.S. App. LEXIS 10129 (9th Cir. Cal., Apr. 23, 2018). The principle had also been confirmed by the US Copyright Office in its Compendium of U.S. Copyright Office Practices: in particular, the Compendium included, a “photograph taken by a monkey” and “a mural painted by an elephant” as examples of something that the Office will not register. See U.S. Copyright Office, Compendium of U.S. Copyright Office Practices, § 313.2 (2014).

¹⁵³ See for example Section 9(3) of the UK Copyright, Designs and Patents Act 1988.

¹⁵⁴ Annemarie Bridy, *Coding Creativity: Copyright and the Artificially Intelligent Author*, 2012 *Stan. Tech. L. Rev.* 5 (2012).

¹⁵⁵ There is a growing recognition among legal scholars that traditional copyright laws are unsuitable to dealing with works produced by creative robots, see e.g. Shlomit Yanisky-Ravid and Luis Antonio Velez-Hernandez, *Copyrightability of Artworks Produced by Creative Robots and Originality: The Formality-Objective Model* 19 *Minn. J.L. Sci. & Tech.* 1 (2018); Jane C. Ginsburg, *People Not Machines: Authorship and What It Means in the Berne Convention*, 49 *Int'l Rev. Prop. & Comp. L.* 131 (2018); Andres Guadamuz, *Do androids dream of electric copyright? Comparative analysis of originality in artificial intelligence generated works*, 2 *Intell. Prop. Q.* 169, (2017); Robert C. Denicola, *Ex Machina: Copyright Protection for Computer-Generated Works* 69 *Rutgers L. Rev.* 251 (2016).

requirement,¹⁵⁶ which would probably sanction the evolution of the copyright system from the law of authors to the law of copyrightable works.¹⁵⁷

VIII. Ideas, Facts and Public Interest Concerns

Copyright laws aim to balance the interests of those who create content, with the public interest in having the widest possible access to that content.¹⁵⁸ They aim in particular at guaranteeing that certain subject matter and elements are not protected (and thus cannot be taken away from the public domain) because they need to remain available for, and usable by, anybody. Judges adjudicating copyright disputes might also be inclined to exclude from protection works that display an unlawful or immoral content, or that have been illegally produced.

(i) Ideas and expressions

A key copyright principle which aims at boosting the public domain is the dichotomy idea-expression. It ensures that the manifestation of an idea is protected rather than the idea itself and therefore reconciles the interests of copyright owners with those of down-stream creators, users and the public at large, who can use and exploit non-copyrightable elements for their own purposes. While this principle is codified in US copyright law (“in no case does copyright protection for an original work of authorship extend to any idea ... [and] concept ...”)¹⁵⁹, in other few jurisdictions¹⁶⁰ and in the TRIPS Agreement¹⁶¹ (the first international treaty to incorporate such a principle), in other countries including those with civil law traditions, it has

¹⁵⁶ For an old UK case where the concept of authorship was interpreted broadly see *Walter v Lane* [1900] AC 539, where the reporter of a transcription of a speech was considered entitled to his own authorship status as an “author may come into existence without producing any original matter of his own” (at 554). See also Jane C. Ginsburg, *The Concept of Authorship in Comparative Copyright Law*, 52 *DePaul L. Rev.* 1063 (2003), p. 1073; N.P. Gravells, *Authorship and originality: the persistent influence of Walter v Lane* [2007] *Intellectual Property Quarterly* 267.

¹⁵⁷ See Massimo Maggiori, *Artificial Intelligence, Computer Generated Works and Copyright, in Non-Conventional Copyright – Do New and Atypical Works Deserve Protection* 382 (E. Bonadio and N. Lucchi eds. 2018).

¹⁵⁸ See e.g. Julie E. Cohen et al., *Copyright in a Global Information Economy*, 6-7 (3d ed. 2010); William M. Landes and Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 *J Legal Stud* 325, 326 (1989).

¹⁵⁹ 17 U.S. Code § 102.

¹⁶⁰ See for example Canada and Taiwan.

¹⁶¹ See article 9(2) of the Agreement on Trade-Related Aspects of Intellectual Property Rights art. 27(2), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 (hereinafter: TRIPS).

been developed through case law.¹⁶² In theory, the principle looks relatively easy to grasp.¹⁶³ Yet, verifying in practice whether a specific element falls within either of these categories is definitely more difficult. The crucial question is: where does the idea stop and the expression start? This dilemma is particularly evident when it comes to certain forms of art and creativity where the line distinguishing ideas and expressions is rather blurred. For example, what about conceptual art, for which the concept behind the artwork is more important than the finished art object? And bio art, which is often (again) fundamentally conceptual and process-focused?¹⁶⁴ Or jokes, which seem to be based on merely funny ideas, but could also be personalised by comedians that change the arrangement of the words and perform them in a different style?¹⁶⁵

The often blurred line between ideas and expression is confirmed by the doctrines of “merger” and *scènes à faire*, that are sometimes referred to by courts (especially in the US). The merger doctrine argues that where the idea and expression are intrinsically connected, and the expression is indistinguishable from the idea because they have merged, such an element cannot be protected by copyright. The *scènes à faire* doctrine (literally meaning “scenes that must be done”) refers to elements that are standard, or indispensable in the type of work at issue or sequences of events that necessarily result from the choice of a setting or situation (in an old movie focusing on cops in the Bronx, for example, it is inevitable that the scenery would include drunk people, stripped cars, prostitutes, and rats;¹⁶⁶ and in a spy movie we should expect to see secret agents hiding self-defence gadgets in their clothes). The rationale of both doctrines is clear. Granting the first comer monopolistic rights over these elements would significantly hinder the creation of follow-on works, and thus restrict the public’s enjoyment of further creative expressions.¹⁶⁷

That said, it is interesting to highlight how and to what extent these doctrines apply to certain works, such as jokes (again), magic tricks and sports moves.

¹⁶² See for example the seminal UK case *Designers Guild Ltd v Russell Williams (Textiles) Ltd (t/a Washington DC)*, [2001] E.C.D.R. 10 (with Lord Hofmann noting that “certain ideas expressed by a copyright work may not be protected because, although they are ideas of a literary, dramatic or artistic nature, they are not original, or so commonplace as not to form a substantial part of the work”).

¹⁶³ A recent EU case where the idea-expression dichotomy has been dealt with is the above mentioned *Levola Hengelo* (Case C-310/17) on the protectability of a taste of a cheese. Indeed, in his Opinion of 25 July 2018 Advocate General Whatelet was quite straightforward, as he considered tastes of food as non protectable ideas (para. 55).

¹⁶⁴ See e.g. Jani McCutcheon, *Copyright in Bio Art*, in *Non-Conventional Copyright – Do New and Atypical Works Deserve Protection* 62 (E. Bonadio and N. Lucchi eds. 2018).

¹⁶⁵ See Trevor M. Gates, *supra* note 89, at 814 (noting how two jokes may be told in a different manner despite having the same overall premise).

¹⁶⁶ This was actually noted by a US court in *Walker v. Time Life Films, Inc.*, 784 F.2d 44 (2d Cir. 1986).

¹⁶⁷ It should be noted that this doctrine may lead to a paradox, as the more a work is popular the less protection it may have.

Take magic tricks, first. In a US case involving a claim by a magician named Robert Rice, who had created a video called *The Mystery Magician*, the court not only noted that copyright does not protect the idea of revealing magic tricks; it also found that the sequence was merged with the idea of revealing the mysteries of magic and was a *scènes à faire* and thus unprotectable.¹⁶⁸ “there are only a finite number of ways to reveal the secrets behind magic tricks, and the perform and reveal sequence is the most logical expression of this idea.”¹⁶⁹

Other works which raise similar issues are jokes. Indeed, jokes often share similar punchlines. A punchline is the part of a joke which aims at making people laugh, and is positioned after the introductory framing and narrative. When punchlines draw on a stock theme that is common in the comedy circles, obviously copyright cannot be available. As has been noted, in case of a dispute a court may note that there is only a single way, or a limited number of ways, to express a particular fact or punchline, that the underlying idea has merged with the expression and thus conclude that the entire phrase of the joke cannot be protected.¹⁷⁰

Sports moves provide other examples where the merger doctrine may apply. Take scripted sports where (again) there is a limited number of ways to express an idea during a competition. For instance, in baseball and similar sports there are a limited number of routes a player can choose to get to a specific point. Similarly, in soccer there are just a limited number of ways to take penalties or perform bicycle kicks. Therefore, if copyright were secured on each play that would permit a player to perform that particular move, then he or she would basically have a monopoly over a scripted move which any other player should be able to take.¹⁷¹ This is exactly what the merger doctrine aims to prevent. After all, it would be rather difficult to imagine a situation where, for example, Zinedine Zidane would be allowed to claim copyright over his famous spin move and enforce it against other soccer players, asking them to pay royalties or damages!

(ii) Facts

Not only ideas. Facts cannot be copyrighted either. In *Feist v. Rural*¹⁷² the US Supreme Court confirmed that copyright can only apply to the creative aspects of a collection of data (namely, the creative choice of what data to include or exclude and the order and style in which the

¹⁶⁸ Rice, 330 F.3d 1177.

¹⁶⁹ Rice, 330 F.3d at 1177.

¹⁷⁰ See Trevor M. Gates, *supra* note 89 at 824.

¹⁷¹ See Proloy K. Das, *Offensive Protection: The Potential Application of Intellectual Property Law to Scripted Sports Plays*, 75 *Ind. L.J.* 1073, 1094 (2000).

¹⁷² *Feist Publications, Inc., v. Rural Telephone Service Co.*, 499 U.S. 340 (1991).

information is presented), but not to the information itself.¹⁷³ Many other jurisdictions have followed this approach, thus respecting the spirit of the Berne Convention which does not extend protection to news of the day or to miscellaneous facts having the character of mere items of press information.¹⁷⁴ It is therefore understandable why several commentators have criticized recent legislative moves, for example by Germany and Spain, introducing a sui generis right to press publications that cover short snippets of news made available by news aggregators and web search engines.¹⁷⁵ This approach is considered by many scholars as a too broad right which may end up covering facts such as news items and lead to an unwelcome monopolization of information and consequential restriction of free speech and competition.¹⁷⁶ What Mr Justice Laddie's warned in his seminal article of 1996 "Copyright: Over-Strength, Over-Regulated, Over-Rated?" is quite relevant here: "We should not be handing out [the copyright] monopolies like confetti while muttering 'this won't hurt'".¹⁷⁷

IX. Concluding Remarks

In this paper, we have pointed to a varied range of new and non-conventional works and discussed whether copyright may be available to protect them. The subject matter we have covered is at times unusual, and even provocative. That is exactly what we want to do, namely to provoke and trigger a discussion. We are obviously aware that certain products of human ingenuity we have referred to here will probably never attract copyright, either because a judge or copyright officer has already confirmed so (e.g. yoga sequence) or common sense leads us to believe so (e.g. a spin move in soccer). Yet, a comprehensive analysis of such a wide spectrum of works, even those that will never be offered protection, may help understand the exact contours of copyright subsistence.

¹⁷³ For a seminal UK case on this point, see *Ravenscroft v Herbert* [1980] RPC 193, where the defendant had crossed the dividing line between the lawful use of facts and the appropriation of the related concepts developed in another person's work. For an opposite decision, see *Baigent & Another v The Random House Group Ltd Reference* [2006] EWHC 719 (Ch), a case where covering the alleged copyright infringement of the book *The Holy Blood and The Holy Grail* by the novel, *The Da Vinci Code*. It was held (and confirmed by the Court of Appeal) that what had been copied was not a substantial part of the earlier book (with Justice Smith noting that "the facts and the themes ... cannot be protected but how those facts, themes and ideas are put together ... can be").

¹⁷⁴ Article 2(8), Berne Convention.

¹⁷⁵ See Lionel Bently et al., Response to Article 11 of the Proposal for a Directive on Copyright in the Digital Single Market, entitled 'Protection of press publications concerning digital uses' on behalf of 37 professors and leading scholars of Intellectual Property, Information Law and Digital Economy (5 December 2016), available at <https://www.civil.law.cam.ac.uk/sites/www.law.cam.ac.uk/files/images/www.civil.law.cam.ac.uk/documents/ipomodernisingipresponsepresspublishers.pdf> (last accessed on May. 5, 2018).

¹⁷⁶ Statement from EU Academics on Proposed Press Publishers' Right, available at <https://www.ivir.nl/academics-against-press-publishers-right/#signatories> (April 25, 2018).

¹⁷⁷ Justice Laddie, Copyright: over-strength, over-regulated, over-rated? (1996) European Intellectual Property Review, 18/5, pp. 253-260, at 260.

That said, it is safe to say that denying copyright just because works do not fit into any of the available boxes (especially in jurisdictions that have an open list system), or because the requirements for protection are rigid or are narrowly interpreted by judges, may often not do justice to people that put a significant amount of intellectual effort and come up with an artistic output. The British disputes *Lucasfilm* and *Creation Records* are good cases in point. This is not to say that any creation should be sufficient to justify copyright subsistence.¹⁷⁸ There must be boundaries when it comes to defining copyrightable subject matter and assessing requirements for protection. As has been suggested, just productions of artistic creativity (with the concept of art including visual arts, music, literature and dance) should be offered protection, which would mean that no copyright would be available for subject matter protectable by patent law:¹⁷⁹ although inventions are certainly products of human ingenuity and may be highly original, they definitely are not *artistically* creative.¹⁸⁰

One may also note that the decision whether or not to grant protection for a specific work should be based on whether such a choice would eventually promote the public interest and in particular the interests of users.¹⁸¹ For example, the introduction of a quasi-copyright protection scheme for publishers' over short snippets of news made available by news aggregators may lead to the monopolisation of facts, which is hardly a positive outcome from a public and users' interest perspective.

Finally, we want to spend a few words on the so-called intellectual property negative space theory developed by some American scholars.¹⁸² Such theory argues that there are areas of human ingenuity where creation and innovation thrive without significant intellectual property protection. These areas include some works that have been analysed in this paper, such as graffiti, food recipes, comedy jokes and magic tricks. But is really copyright always unattractive to these categories of creators? If so, will this lack of interest in copyright last forever? Or could such creators instead acquire soon a strong interest in copyright, especially if and after their work has been imitated and exploited economically by someone without their

¹⁷⁸ See Antony R. Reese, *supra* note 38, at 118

¹⁷⁹ *Id.* at 122.

¹⁸⁰ *Id.* at 119.

¹⁸¹ Users' interests in copyright law have often been closely looked at by scholars. For recent perspectives see Christophe Geiger, *Copyright as an Access Right, Securing Cultural Participation Through the Protection of Creators' Interests*. In *What if We Could Reimagine Copyright?* 73, 97 (R. Giblin and K. Weatherall eds. 2017) (stressing the need to introduce a sort of three-step test in order to obtain access to copyright protection and arguing for the centrality of copyright's role in permitting access to culture through the recognition of both specific obligations for copyright holders and rights for users).

¹⁸² See Karl Raustiala and Christopher Springman, *The Knockoff Economy* (2012); Elizabeth Rosenblatt, *A Theory of IP's Negative Space*, 34 *Colum. J.L. & Arts* 317 (2011); Rochelle Cooper Dreyfuss, "Does IP Need IP? Accommodating Intellectual Production Outside the Intellectual Property Paradigm," 31 *Cardozo Law Review* 1437 (2010); Kate Darling and Aaron Perzanowski, *Creativity Without Law: Challenging the Assumptions of Intellectual Property* (2017).

authorisation? After all, we have seen that some of these creators have recently started taking copyright-related actions against imitators. We, therefore, feel that copyright law may soon play a greater role in protecting these non-traditional works as well, particularly in situations where social norms or self-regulatory mechanisms - normally used in these creative communities - cannot govern as effectively outside the specific community as they do inside the community.¹⁸³ Thus, the application of the IP negative space theory to several of the works highlighted in this paper may need be further tested in the not so distant future as more and more creators in the areas in question may soon nurture strong expectations of economic return and look for (copyright-focused) ways to protect their works and turn them into an even more profitable source of revenues. Leaving these new and non-conventional works in a grey area where just social norms apply may not pay full justice to the intellectual efforts put by a growing category of prolific and visionary people that seem to need rewards which only copyright regimes can offer.

¹⁸³ For an opposite opinion, with particular reference to comedy, see Dotan Oliar & Christopher Sprigman, *There's No Free Laugh (Anymore): The Emergence of Intellectual Property Norms and the Transformation of Stand-Up Comedy*, 94 *Va. L. Rev.* 1787 (2008) (discussing how a norms-based system can be effective in the world of stand-up comedy, where there are no formal actions for the misappropriation of ideas).