

CENTRE FOR INTERNATIONAL INTELLECTUAL PROPERTY STUDIES (CEIPI)

UNIVERSITY DIPLOMA

IN

ARTIFICIAL INTELLIGENCE AND INTELLECTUAL PROPERTY

2021/2022

CASE STUDY

COPYRIGHT IN AI-GENERATED TRADEMARKS

BY

IVAN PRANDZHEV

31 AUGUST 2022

(REVISED IN SEPTEMBER 2022)

Table of contents

I. Introduction	2
II. The outsourcing of brand creation	2
2.1 Corsearch	3
2.2. Clarivate	4
2.3. Brandmark	5
2.4. Looka	7
2.5 Machine-learning-based text-to-image generators	8
III. Trade mark proprietors in the copyright trap	9
3.1. Trade mark invalidation	10
3.2. Copyright Infringement actions	12
3.3. Assignments and licensing of the brand	14
IV. Copyright ownership in AI-generated works	14
4.1. Copyright ownership scenarios	14
4.2 The brand design, a work in the meaning of copyright law?	16
4.2.1. Originality test: Personal and creative choices	17
4.2.2. Applying the originality test to AI-assisted brand creation tools	17
4.2.3. Derivative works	20
4.2.4. Use of data and related third-party rights	21
4.2.5. Copyright protection for individual words	22
4.2.6. The brand's aesthetic value does not play a role	24
V. Authorisation	25
5.1 Brandmark's terms of service	26
5.2. Looka's terms of service	28
5.3. An implicit license under national copyright law	29
VI. Conclusion	31
Bibliography	32
Case Law	32

I. INTRODUCTION

1. One of the most consequential tasks when setting up a company or launching a new product may, at a first glance, seem easy or even trivial. Creating a new name requires just a bit of fantasy and knowing how to search the relevant public registers for conflicting prior rights. The product's creators appear, again at a first glance, to be ideally positioned to perform this task. After all, it is their minds where the product first saw the light of day. In reality, however, there is a lot more to it and this task is frequently (partly) outsourced to external creative professionals or, as we shall see below, to online tools, some of which are based on a form of artificial intelligence (hereinafter "*AI*") technology (see section II below).
2. Depending on the specific circumstances, one of the legal consequences of this outsourcing may be a discrepancy between the trader using the brand as a registered trademark in commerce on one hand and the author of the said brand as its copyright holder. This creates friction between the rights the parties are entitled to under trade mark law and copyright law respectively. This friction, if left unaddressed in the terms of their contract, may trap the trade mark holder in a particularly disadvantageous legal position (see section III below).
3. This problem is exacerbated by an added layer of legal uncertainty and information asymmetry where the trade mark holder has used an AI-powered tool for the creation of the specific brand as it introduces still unresolved issues of copyright, specifically authorship, in AI-created works (see section IV below). In the following, we shall refer to the person using an AI tool to create a new brand as the "user" or the "trade mark proprietor" and to the person who has created the AI tool as its "designer". As we shall see below in section 4.1., depending on the circumstances of the particular case, both of these persons (or none of them) may be deemed to be copyright holder.
4. This is why their contractual relationship is of utmost importance. By making use of their contractual autonomy, the designer of the AI tool and its user (and prospective trade mark proprietor) may resolve or exacerbate the legal uncertainty. This is why, upon discussing the above issues under EU law, this paper takes the terms of service of selected tools and examines whether and how they influence the parties' position (see section V below).

II. THE OUTSOURCING OF BRAND CREATION

5. By "christening" a product or a company, its creators lay the foundations of its very identity. A powerful brand does not simply help cut consumer search costs and distinguish the respective

products or services from others on the market. It goes far beyond the basic functions of a trademark identified in the jurisprudence of the Court of Justice of the European Union (hereinafter the “*CJEU*”) as it draws consumers’ attention and builds up a continuous presence in their minds; it creates an emotional relationship between them and the product; it communicates the company’s values and its ambitions.

6. Hence, establishing a new brand is akin to building a bridge between a product and its customers. It requires a profound understanding of both shores to build solid foundations. Knowing the product is important, but one really must also understand human psychology, how consumers perceive and experience a brand visually and aurally, and the concepts that it evokes in their minds. These skills and experiences are not commonplace. Therefore, this very important task is often (at least partly) outsourced to creative professionals who “speak the language of brands”.
7. In recent years, however, a new trend has been emerging. The availability of vast amounts of data has enabled the automation of part of the task of brand creation. Market actors now have access to a wide range of tools helping them give their products or services fitting and original names and decorate them with images, which then can be registered as figurative marks or word marks. Their services are typically very affordable and, therefore, attractive for small and medium companies with limited budgets. The quality of their output varies vastly and seemingly follows the sophistication of the technology they use. One very important factor is the extent to which users are allowed to personalise their input, *e.g.*, by indicating specific criteria they find important and want to see reflected in the output name or sign. Some tools offer a high number of suggested names and signs and then allow users to select one or more of those and further manually adjust it. Finally, some tools try to facilitate clearance or even have a built-in clearance function.
8. According to the claims of the companies behind them, certain tools rely on a form of artificial intelligence. Indeed, machine learning can provide valuable input when designing a new brand. It is good at detecting patterns in customer behaviour and it does so by processing very large amounts of market information more efficiently than any human creative professional could ever do. Therefore, in the following, this paper takes a closer look at some of the tools claiming to utilise artificial intelligence to automatically generate brands.

2.1 Corsearch

9. Corsearch Inc. has a patented method and computer system for automatically generating and

evaluating candidate terms for trademark clearance¹. It aims to facilitate the generation of candidate trademark terms based on a plurality of criteria as determined by the user. Corsearch ranks the terms in accordance with their proximity to the criteria and searches databases to retrieve existing trade marks. It scores and ranks the likelihood of a successful clearance of the candidate trade mark terms by estimating their distinctiveness in a relevant class of goods and services. The patented method, therefore, combines search and clearance functionality with name generation. The search may be re-executed taking into account user feedback. The patent also claims, *i.a.*, the generation of a similarity metric based on the linguistic similarity between a selected candidate trade mark term and a given alphanumeric term based on phonetic, letter-phonetic, structural, visual similarity or phonetic prefix presence.

10. On its website, Corsearch advertises a service that bears similarities with the patented model but is not identical. It too is an integrated solution combining search and clearance functionality for candidate trademarks. The website does not mention whether or not the tool can suggest names based on user-defined criteria, but it can suggest changes to candidate trade marks that would increase the likelihood of successful registration.² The tool, therefore, merely assists the name creation process while keeping the prospective brand owner's marketing and legal departments deeply involved in the process, much more so than the patented model.
11. Neither the patent nor Corsearch's website make any mention of images and only refer to "terms" or "names". This is important considering that many word marks, on account of their brevity, may not qualify as works in the meaning of copyright law.³

2.2. Clarivate

12. Clarivate is an analytics company. It emerged in 2016 from the IP and science arm of Thomson Reuters. It provides various services related to trade marks combined under the banner "CompuMark". These include a "naming tool", which relies on natural language processing to design a brand based on the client's criteria, *i.e.*, the client indicates what goods and services are concerned, decides what symbols should be involved, and what concept must be conveyed. Next, the tool examines the brand's availability in the US and the EU against registered trade marks and domain names. Clarivate trains its algorithm on data available from the EU and the US public registers and pharma in-use sources. The name generator is integrated into

¹ US10942973B2 Automatically generating and evaluating candidate terms for trademark clearance.

² Corsearch, Names Matter: The Challenge of Naming Your Brand (2017), available under <https://corsearch.com/knowledge-base/news/names-matter-the-challenge-of-naming-your-brand/>, accessed on 19 August 2022.

³ See however section 4.2.5.

CompuMark's online brand research environment SERION.⁴ As with Corsearch, its website makes no mention of images, which raises doubts as to the ability of the tool to generate copyright-protected works.⁵

2.3. Brandmark

13. Brandmark⁶ is another vendor who, through its AI-powered tool Namelix, allows clients to create brands based on a set of keywords.⁷ It invites them to set the degree of generation randomness (low, medium or high) and select the style of the name. Here, users are invited to decide whether the brand should be based on alternate spelling, use non-English words, compound words or whether it should be “brandable”, an option Brandmark indicates as popular. If the user chooses the “compound words” style, she is invited to indicate whether its keywords should be used as suffixes or prefixes for the brand. If the user selects the “brandable name” style, the tool invites her to include her own ideas in the keywords section. By choosing the “non-English words” style, the user may specify the language she is interested in. The tool's optional settings allow her to “blacklist” words, prefixes, and suffixes and to limit the maximum length of generated words. The tool delivers a long list of logos within just a couple of seconds. They consist of names written in various fonts and colours and set against various backgrounds. Apart from this, they do not include any other figurative elements.⁸
14. Once the user clicks on one of the suggested brands, a new window opens where she is invited to save, purchase, share or edit the selected brand or get other “ideas”. This same window also provides the user with various alternative brands based on the name she has selected. These suggestions do include figurative elements related to the keywords indicated by the user. If the user presses the “ideas” button, the tool provides variations of the selected brand using different colours but keeping the name and the font the same as in the selected brand. These “ideas” do not include any further figurative elements.
15. Next, the user is provided with tools to adjust her favourite suggestions, *e.g.*, by changing the

⁴ Cf. INTA Emerging Issues Committee, AI and Trademarks subcommittee, „Artificial intelligence (AI) usage in trademark clearance and enforcement“ (2021), pp. 2 *et seq.*, available under <https://www.inta.org/wp-content/uploads/public-files/advocacy/committee-reports/INTA-EIC-AI-AI-Usage-in-Trade-mark-Clearance-and-Enforcement-April-2021.pdf>, accessed on 19 August 2022. Cf the Clarivate website, available under <https://clarivate.com/products/ip-intelligence/trademark-research-and-protection/naming-tool/>, accessed on 19 August 2021.

⁵ See however section 4.2.5.

⁶ Brandmark website, available under <https://brandmark.io/>, accessed on 23 August 2022.

⁷ Namelix website, available under <https://namelix.com/>, accessed on 23 August 2022.

⁸ The long list of output includes many logo suggestions including more complex figurative elements. Those, however, are indicated as adds and lead to a third-party website (brandbucket.com) from which they can be purchased. Nothing indicates that these more complex third-party brands have been designed using any type of machine learning.

font, adding new colours, adding a slogan, adding a figurative element, shifting the layout, and other options. Finally, the tool prompts the client to buy a PNG file of the newly created brand and offers additional paid services.

16. Namelix is particularly interesting for the subject matter of this case study because it allows for a variety of options for user input before and after the automated brand generation. Furthermore, as we shall see below, Mr. Jack Qiao, the Toronto-based founder of Brandmark, openly describes the idea and technology on which Namelix relies. Furthermore, the process can be tested online even without registration.
17. In addition to Namlix, Brandmark also offers a logo generation tool.⁹ It prompts the user to enter its brand name and (optionally) a slogan. Then it invites her to indicate keywords and to select between seven colours or six “colour styles”. These colour styles are pre-established combinations of three or four colours, each with a different level of contrast and emphasis. They are referred to as “Simple”, “Vibrant”, “Organic”, “High Contrast”, “Dark”, and “Soft Pastel”. When the user then prompts to tool to generate logos, it loads a long list of suggestions. This state of the tool is exactly the same as the one in which Namelix users find themselves when they select one of the suggested brands. The brand name and slogan as indicated by the user appear in various fonts and font combinations, in various colours and against various backgrounds. Each of the suggestions includes a figurative element. As in Namelix, here again, the tool invites the user to save, purchase or edit one of the suggestions and get “ideas”.
18. In March 2018, Mr. Jack Qiao, the founder of Brandmark, explained the functioning of Namelix in an internet forum. According to him, the user input passes through fasttext. This yields a random sampling of the top 100 words most closely related to the input. Then a markov chain generator generates between 10.000 and 15.000 random words based on the top words as its dictionary input. The output passes a fasttext. The tool then uses the out-of-vocab feature of fasttext to take the cosine distance of the markov chain generator’s output. The tool then yields the 100 most relevant results. Mr. Quiao explains that, in a previous version, the tool was relying on an encoder-decoder model, whereby fasttext served as the encoder and a recurrent neural network was used as the decoder. However, this earlier version “did not work well”.¹⁰

⁹ Brandmark Website, “make your logo“, available at <https://app.brandmark.io/v3/>, accessed on 23 August 2022.

¹⁰ Producthunt, the page presenting Namelix, see the reply by Mr. Jack Qiao to a question by the user Rhys Adams, available at <https://www.producthunt.com/products/namelix?comment=592379#namelix>, accessed on 25 September

19. As its logo generator, Brandmark says it uses the Noun Project with its almost one million icons as its repository.¹¹ From it, Brandmark selects only illustrations with high legibility and uniqueness scores as those are particularly brandable. It computes the legibility score for each of the icons with a convolutional network. It uses a neutral embedding from the final layers of said network to determine the visual similarity between the icons.¹² Next, Brandmark has to match the icon with a suitable font. It says that “there aren’t any hard rules” for this task and that “the aesthetics of typography is heavily subject to taste”. Therefore, Brandmark uses the neural embedding of fonts and icons and implements certain rules of thumb into its tool, *e.g.*, it avoids the combination of a heavy font with a thin icon and *vice-versa* as they “don’t usually look very good” or look “rather unbalanced” and preferring matching the weights of the font and the icon as this combination looks “more intentional”.¹³ In addition, Brandmark must find an appropriate colour combination. To do so, it has pre-generated a large number of colour schemes and has sorted them by lightness and vibrance. It selects the thematically appropriate colour combination based on keywords from the user’s input. It uses word vectors to identify the overall tonal direction by capturing the context of the corresponding word. For example, according to Brandmark, emotive words like “extreme” and “powerful” call for brighter colours whereas “children” and “fun” match well with lighter colour combinations.¹⁴
20. Ultimately, Brandmark admits that logo design is a “very subjective field where nuance and attention to detail is important” so that “convolutional neural nets probably won’t replace designers in the near future”.¹⁵

2.4. Looka

21. Looka works similarly to the Brandmark logo generator in that it, unlike Namelix, does not create names but merely logos based on the name and further input indicated by the user. Looka starts by prompting the user to indicate their company names. Naturally, the user indicates the word mark of a product instead. Then, she is requested to indicate the relevant industry field. The tool explains that this will help it pick the right symbols, colours “and more”. Next, the user is shown various logos. Those were created by the tool but are not meant to represent the final output or even approximate it. The tool invites the user to choose its

2022.

¹¹ Brandmark website, Intro, available under <https://brandmark.io/intro/>, accessed on 25 September 2022.

¹² Brandmark website, Intro, available under <https://brandmark.io/intro/>, accessed on 25 September 2022.

¹³ Brandmark website, Intro, available under <https://brandmark.io/intro/>, accessed on 25 September 2022. For the implications of these choices made by Brandmark on the copyright assessment see section 4.2.2.

¹⁴ Brandmark website, Intro, available under <https://brandmark.io/intro/>, accessed on 25 September 2022.

¹⁵ Brandmark website, Intro, available under <https://brandmark.io/intro/>, accessed on 25 September 2022.

favourites and explains that it will use them for inspiration. At the next stage, the tool asks the user to choose one or more out of nine colours. Then the user is invited to add a slogan. If that slogan is longer than 17 characters, the tool will recommend the user to shorten it and will explain that “[a] long slogan might be hard to read [...]”. Next, the tool asks the user to pick “symbol types”, *i.e.*, words indicating specific objects like “fruit”, “apple”, and “juice” but also words referring to more general concepts such as “health”, “nutrition” and “organic”. The tool then takes a couple of seconds to generate logos including the name, the slogan, and a symbol. According to Looka, they are all “100% custom-tailored”. It invites the user to “pick a logo to customise”. The user is then led to a digital workshop similar to the one used by Brandmark where she can change every aspect of the logo, *e.g.*, the background, the symbol, its size and positioning, the colour, the font, including the name and the slogan themselves. A button on the right-hand menu invites her to consider “more ideas” and offers automatically generated variations of their current draft. This is the final stage of brand generation. If the user then clicks on “download”, the tool will prompt her to choose between two one-time purchase options and two annual subscription models.

22. Looka and Brandmark’s logo-generation tools require similar input and they both allow for far-reaching editing allowing the user to completely change every element of the output before purchasing it. Clearly, she does not have to make use of this freedom to customise the automatically generated images. The tools of Looka and Brandmark are similar also in the way they are offered to the user. Unlike Corsearch and Clarivate, their output is not hidden behind a paywall. They display their results to the user without even requiring her to register and log in.

2.5 Machine-learning-based text-to-image generators

23. Recently, several projects for image generation relying on natural language input have become widely popular. Some examples of such tools are DALL·E and DALL·E 2, Midjourney, and CrAIyon. They are not specialised in the creation of brands or even brandable images. However, it cannot be excluded that the powerful technology behind them may, in future, be designed to meet the parameters required for brand creation. Furthermore, it cannot be excluded that users utilise the tool for the creation of figurative elements they would later integrate into their brands.
24. What sets these text-to-image generators apart and makes them so powerful is the use of a machine learning approach to text-to-image synthesis with the help of very large datasets. This can be traced back to a distributed research effort leading to incremental improvements over

the past seven to eight years. It was started by *Mansimov, Parisotto, and Salakhutdinov*, who showed in 2015 that the generative statistical model Deep Recurrent Attentive Writer (also known as “DRAW”)¹⁶ could generate new visual scenes, *i.e.*, not seen in the training data. In contrast to previous generative models which were either unconditioned or conditioned on classification labels, the new model conditioned image captions. This goes back to the researchers’ realisation that they can harness the additional information contained in unstructured textual descriptions accompanying images as they appear in real-life applications, *e.g.*, on websites and in books.¹⁷ In the following years, researchers kept building on that model to improve image fidelity. In 2021, encouraged by advancements achieved through large-scale generative models in domains such as text, images, and audio, the Open AI researchers behind DALL·E suggested expanding data size and model size for tex-to-image generation and demonstrated that training a deep-learning model with 12 billion parameters on 250 million image-text pairs results in significant improvements.

25. What all of the tools discussed above have in common is that they all require a “collaboration” between the user and the tool. The extent to which they are involved in this collaboration, however, varies from one tool to another. This raises the question to what extent any of them, both or none of them may be considered as “authors” under copyright law of the ultimate brand or its earlier drafts. As we shall see in the following, this is of vital importance for trade mark proprietor’s freedom to use the brand.

III. TRADE MARK PROPRIETORS IN THE COPYRIGHT TRAP

26. Copyright is indeed crucial in the context of outsourcing brand creation as this process results in at least two rightsholders. On one hand, there is the trade mark proprietor who has registered the brand as a distinctive sign and is using it in commerce to distinguish her goods and services from the goods and services of other traders. The European Trade Mark Regulation (hereinafter the “*EUTMR*”) entitles her, *i.a.*, to exclude others from doing so.¹⁸ On

¹⁶ DRAW is a neural network architecture for image generation conceived by Google’s Deep Mind in 2015. It utilises a model simulating the distribution of human attention when observing images by mimicking the the way human eye movements direct the fovea from one object of interest to another. It combines this model with a framework of encoders and decoders (*i.e.*, the creation of new features from old features and *vice versa*), one that has been regularised at training and creates a bottleneck for information ensuring that only the main structured part of the data can go through in order to then be reconstructed. See Gregor, K., Danihelka, I., Graves, A., Jimenez Rezende, D., Wierstra, D., DRAW: A Recurrent Neural Network For Image Generation, [arXiv:1502.04623v2](https://arxiv.org/abs/1502.04623v2), p.1.

¹⁷ MANSIMOV, E./ PARISOTTO/ E., LEI BA, J./ SALAKHUTDINOV, R., Generating Images from Captions with Attention, published at ICLR 2016, [arXiv:1511.02793v2](https://arxiv.org/abs/1511.02793v2), p. 1.

¹⁸ Article 9(2)(a) EUTMR entitles the proprietor of a EU trade mark to prevent all third parties from from using in the course of trade a sign identical to the registered trade mark in relation to goods or services identical to the ones for which the trade mark has been registered.

the other hand, there is the author of the image as a work in the meaning of copyright law who has the right, not requiring any registration at all, to prohibit, *i.a.*, any reproduction of the brand, including reproductions in commerce for the purpose of identifying goods and services.¹⁹ This way, the brand becomes a friction point between trade mark law and copyright law and this may result in conflicts between the relevant rightsholders. As this problem is not new and is unrelated to the technology used to create the brand as a work under copyright law, it has already been addressed by substantive and procedural statutory law. In this section, the paper focuses on the EU law and, where necessitated by the lack of harmonisation on a supranational level, it resorts to selected laws of individual EU Member States.

27. As will be demonstrated below, statutory laws put the trade mark proprietor at a disadvantage. This makes practical sense because her right emerges only after the copyright. Copyright is established at the very moment the work is created and does not require any procedural steps.²⁰ A European trade mark, on the other hand, must be registered.²¹ This requires the applicant to submit to the competent authority a copy of the brand, which at this point is already protected by copyright. Therefore, it appears justified to require diligence and caution from the trade mark applicant and let her bear the burden of the friction between the copyright and trade mark law.

3.1. Trade mark invalidation

28. The proprietor of an EU trade mark who, under copyright law, is not entitled to reproduce or publicly display the brand, may indeed find herself in a very difficult position. Susceptibility to prohibition of use of the trade mark due to conflicting earlier copyright is one of the relative grounds for invalidity of an EU trade mark spelt out in Article 60(2) EUTMR. The consequence of a successful invalidation is that the EU trade mark will be (retrospectively) deemed to never have had the effects provided to EU trade marks under the EUTMR.²² The copyright holder can achieve this by either filing a cancellation action with the European Union Intellectual Property Office (hereinafter the “*EU IPO*”) or, if facing a trade mark infringement action by the trade mark proprietor as the plaintiff, by lodging a counterclaim for

¹⁹ Article 2(a) of Directive 001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society. This provision obliges the EU Member States to enact legislation entitling authors to an exclusive right to authorise or prohibit the reproduction “by any means and in any form, in whole or in part” of the protected work.

²⁰ Pursuant to Article 5(3) of the Berne Convention, to which all EU Member States have acceded, the “enjoyment and the exercise of these rights shall not be subject to any formality”.

²¹ Article 1(1) EUTMR refers to a EU trade mark as one “which is registered in accordance with the conditions contained in this Regulation [...]”.

²² Article 62(2) EUTMR.

the invalidation of the trade mark the infringement claim is based on.²³

29. Therefore, a trade mark proprietor, who does not hold the copyright on the brand, may see its trade mark invalidated in cancellation proceedings before the EUIPO or before a court. Moreover, it means that she herself will not be able to invoke the copyright in invalidation proceedings against registered trade marks and will have to resort to Article 60(1)(a) in conjunction with Article 8(2) EUTMR. This adds a layer of difficulty, *e.g.*, by requiring the trade mark proprietor to demonstrate also identity (or similarity) between the relevant goods and services.
30. In cancellation proceedings before the EUIPO, the onus to show that the use of the trade mark can be prohibited under copyright law is on the cancellation applicant. She will have to provide the EUIPO with the relevant legislation, substantiate the right it invokes,²⁴ and put forward cogent arguments as to why said legislation entitles her²⁵ to the use of the trade mark.²⁶ Apart from this, the principle *iura novit curiae* applies and requires the EUIPO to assess (if need be, *ex officio*) the relevant national law by whatever means it considers appropriate for the purpose of establishing the applicability of the relevant relative ground for invalidity.²⁷
31. This is very important because, as will be demonstrated below, this question is particularly difficult to answer when it comes to works generated by an artificial intelligence tool. The fact that the EUIPO has a duty to investigate on its own motion and by whatever means it considers appropriate significantly favours the applicant who, otherwise, would have to demonstrate this all by herself.

²³ Article 62(2) EUTMR.

²⁴ Article 16(1)(b) in conjunction with Article 7(2)(d) of the European Union trade mark delegated regulation 2018/625 of 5 March 2018. See also KEELING, D.T./ CLEGG, J., ‘Chapter VI: Surrender, Revocation and Invalidity’, in VON BOMHARD, V./ VON MÜHLENDAHL (eds), *Concise Commentary of European IP law*, Volume 6 (2018), pp.309 – 349, at section 3(b).

²⁵ The applicant can only invoke the prior right (in this case its copyright), if the applicable law entitles her (and not a third party) to prohibit the use of the work. See EUIPO Board of Appeal, [R 1235/2009-1](#). See also EUIPO Trade mark guidelines 2022, Part D Cancellation, Section 2, Subsection 2.1 Persons entitled to file an application for cancellation, available under <https://guidelines.euipo.europa.eu/1935303/2044719/trade-mark-guidelines/2-1-persons-entitled-to-file-an-application-for-cancellation>, accessed on 26 August 2022.

²⁶ Article 12 of the European Union trade mark delegated regulation 2018/625 of 5 March 2018; See also EUIPO Trade mark guidelines 2022, Part D Cancellation, Section 2, Subsection 4.3.2 Copyright, available under <https://guidelines.euipo.europa.eu/1935303/2048255/trade-mark-guidelines/4-3-2-copyright>, accessed on 26 August 2022, with reference to CJEU. 5 July 2011, [C-263/09 P](#) (EU:C:2011:452), Elio Fiorucci.

²⁷ KEELING, D.T./ CLEGG, J., ‘Chapter VI: Surrender, Revocation and Invalidity’, in VON BOMHARD, V./ VON MÜHLENDAHL (eds), *Concise Commentary of European IP law*, Volume 6 (2018), pp.309 – 349, at section 3(b) with reference to CJEU, 27 March 2014, [C-530/12 P](#), (ECLI:EU:C:2014:186) National Lottery Commission

3.2. Copyright Infringement actions

32. In addition, the proprietor of the trade mark using her distinctive sign in commerce may be exposed to infringement actions by the copyright holder. Directive 2001/29/EC (hereinafter the “*Infosoc Directive*”) requires the EU Member States to enact adequate legislation entitling authors of works to a reproduction right and a right to communication to the public. Specifically, Article 2 of said directive speaks of an exclusive right to authorise or prohibit the reproduction “by any means and in any form” of the copyright-protected work. The right of communication to the public is defined by Article 3 of the Infosoc Directive in similarly broad terms. Article 3 entitles authors to “authorise or prohibit any communication to the public of their works, by wire or wireless means [...]”. “Reproduction” and “communication to the public” represent autonomous concepts under EU law from which the courts of the individual EU Member States may not deviate. They require uniform interpretation across the EU.²⁸
33. Articles 2 and 3 of the Infosoc Directive use very broad language and, therefore, have very broad scopes. This is reinforced by Recital 21 of said directive, in which the legislator deems broad definitions of the scopes of the relevant acts necessary for ensuring legal certainty within the internal market. In addition, Recital 23 expressly states that the right to communication to the public “should be understood in a broad sense”. The CJEU has repeatedly ruled that a broad interpretation is required also by the main objective of the Infosoc Directive, namely to provide a high level of protection of copyright.²⁹ Therefore, it is easy to see how attaching a logo a product neatly falls under the broad terms of “reproduction” and how using that logo in a televised advertisement or in e-commerce could be deemed to represent a “communication to the public”.
34. Where such use has not been authorised by the copyright holder of the logo and does not fall under an exception to copyright protection, it would represent a copyright infringement. The national laws of the EU Member States provide the copyright holder with various remedies, which typically include declaratory relief,³⁰ indemnification,³¹ a cease and desist order,³² order

²⁸ CJEU, 16 July 2009, [C-5/08](#) (ECLI:EU:C:2009:465), Infopaq, paras 27 *et seqq*; CJEU, [C-306/05](#), 7 December 2006, (ECLI:EU:C:2006:764), SGAE, para. 36.

²⁹ CJEU, 16 July 2009, [C-5/08](#) (ECLI:EU:C:2009:465), Infopaq, paras 40 *et seq*; CJEU, 7 December 2006, [C-306/05](#) (ECLI:EU:C:2006:764), SGAE, para. 36; See also RENDAS, T., *Exceptions in EU Copyright Law*, Wolters Kluwer (2021) p. 56 with further reference to case law confirming the “cannon of broad interpretation in relation to the right of reproduction” at footnote 312.

³⁰ See e.g., Section [256](#) of the German Civil Procedure Code, Section [228](#) of the Austrian Civil Procedure Code,

³¹ See e.g., Section [87](#) of the Austrian Copyright Act, Section [97\(2\)](#) of the German Copyright Act, Section [L-331-1-3](#) of the French Intellectual Property Code, Article 140 of the [Spanish Intellectual Property Law](#).

³² See e.g., Section [83](#) of the Austrian Copyright Act, Section [97\(2\)](#) of the German Copyright Act, Article 139.1(a) of the [Spanish Intellectual Property Law](#).

for the recall of infringing goods,³³ and the publication of the court decision at the expense of the infringer.³⁴ These and other remedies are guaranteed on the EU level by Directive 2004/48/EC (hereinafter the “*Enforcement Directive*”).

35. In a worst-case scenario, this means that a trade mark proprietor could invest a substantial amount of financial means and a lot of time and effort into developing her brand in the belief that it is protected as a registered trade mark, only to find out that, under copyright law, she has no right to use it without the right holder’s consent, that she may have to compensate the right holder for the past unauthorised use, recall her products from the distribution channels, stop placing her goods and services under the brand she has, with great care, managed to establish on the market and condense her goodwill into, see her business relationships and its reputation damaged by the publication of a declaratory judgment she has to bear the costs for, and having to give her products or services a brand new identity. If this was not enough, in accordance with a widespread practice, where the defendant in copyright infringement proceedings is a small company, its directors may be personally exposed to claims as a second defendant in the proceedings.³⁵
36. However, even if the copyright holder does not raise infringement claims against the trade mark proprietor, not having the copyright of the brand would still be of significant disadvantage for the latter. She would still be limited in her procedural scope of action. A trade mark proprietor who is not entitled to copyright protection for her brand cannot invoke it before a court and will have to rely on trade mark law only. In accordance with Article 9(2)(a) and (b) EUTMR, she will have to demonstrate not only that her distinctive sign and the one used by the defendant are identical (or at least similar) but she will also have to show identity (or similarity) between the respective goods or services. This is by no means trivial and may prove unsuccessful or discourage her from raising the claim in the first place. She would only be able to avoid this if she demonstrates that her brand enjoys a reputation in the meaning of Article 9(2)(c) EUTMR and that the defendant, by using it (or a similar distinctive sign), is taking unfair advantage of her brand or damaging its reputation without due cause. In practice, neither of these elements of the claim is easy to prove.

³³ See e.g., Section [82](#) of the Austrian Copyright Act, Section [98](#) of the German Copyright Act, Section [L-331-1-4](#) of the French Intellectual Property Code, Article 139.1(c) of the [Spanish Intellectual Property Law](#).

³⁴ See e.g., Section [85](#) of the Austrian Copyright Act, Section [103](#) of the German Copyright Act, Section [L-331-1-4](#) of the French Intellectual Property Code,.

³⁵ FAIRHURST, O., ‘Copyright in logos: English court finds infringement of stag’s head log’ in *Journal of Intellectual Property Law & Practice*, 2019, Volume 14, Issue 9, p. 662 with further reference to *Fish & Fish Ltd v Sea Shepherd UK* [2015] UKSC 10, para 21.

3.3. Assignments and licensing of the brand

37. For the trade mark proprietor, not being the owner of the copyright (or at least a licensee) of her brand effectively means that her scope of contractual action is severely limited. Not being able to license the use of the copyright-protected work to third parties has an important spill-over effect on her ability to transfer or license the respective trade mark. Authorizing the use of a brand would make very little sense if the copyright holder could then simply prohibit that use under copyright law.
38. Apart from inhibiting transactions, the lack of copyright ownership by the trade mark proprietor will likely put a lower price tag on the brand as an asset in the company's portfolio and will adversely affect its valuation.

IV. COPYRIGHT OWNERSHIP IN AI-GENERATED WORKS

39. The use of artificial intelligence puts a big question mark on the issue of who, if anyone, holds the right to authorise the use of the work under the applicable copyright law. As most AI-powered tools for brand creation request their users to set the parameters for the new brand design and because these users do not see the creative process taking place “on the other side of the screen”, they might be fooled into thinking that they are indeed the brand design's sole authors and that they are entitled to exclusive copyright protection. However, whether this is indeed the case depends on a number of circumstances which will be discussed in this section and not all of which are visible to the user.

4.1. Copyright ownership scenarios

40. The following outcomes, each with different consequences for the contractual and procedural scope of action for the trade mark proprietor, are possible:
 - **No copyright protection applies to the AI-generated brand.** Such would be the outcome of the legal assessment, where the output does not meet the requirements for being a work in the meaning of copyright law. This could be because it fails to meet the anthropocentric originality requirement for copyright protection under EU law, *e.g.*, where none of the human actors involved in its creation has made free and creative choices.³⁶ Where this is the case, while the trade mark proprietor does not need to fear successful copyright-based claims and is not effectively restricted in licensing or assigning the brand to third parties, she cannot rely on copyright law in

³⁶ See section 4.2.1.

court actions against competitors. Furthermore, the absence of copyright protection will likely affect the price the trade mark proprietor is ready to pay for using the tool. In particular, it would be very much in her interest to avoid paying for a copyright license.

- **The AI service provider is the sole author.** This would be the case where the AI has been designed to reflect her personal creative choices and the user's contribution to the brand creation does not meet the standard of originality.³⁷ The trade mark proprietor will need the AI service provider's authorisation to use (and sublicense) the copyright, otherwise, she might be exposed to successful copyright infringement claims³⁸ and her trade mark would be susceptible to invalidation.³⁹
- **The user of the AI tool, i.e., the trade mark proprietor, is the sole copyright holder with respect to her brand.** This would be the case, where the AI does not reflect its designer's personality but the personal and creative choices made by the user.⁴⁰ This would also apply where the ultimate brand is deemed to be a derivative work of the original AI-generated output to which no copyright protection applies.⁴¹ While these are the best-case scenarios for the trade mark proprietor, she would still be best advised to be aware of her status as the author of the brand in order not to overpay the AI service provider in the belief that she is also acquiring a copyright license.
- **Both the AI service provider and the trade mark proprietor hold the copyright on the brand.** This would be the case where the brand reflects the personal and creative choices of both the AI service provider in designing the tool and the personal and creative choices of the trade mark holder in using it.⁴² The exercise of their rights would be governed by the applicable national law. In this scenario, the trade mark holder would be best advised to acquire an exclusive license from her co-author.
- **The AI service provider is the sole author of the AI output while the trade mark proprietor is the sole author of the ultimate brand, a derivative work based on**

³⁷ See section 4.2.1.

³⁸ See section 3.2.

³⁹ See section 3.1.

⁴⁰ See section 4.2.1.

⁴¹ See section 4.2.3.

⁴² See section 4.2.1.

that output.⁴³ In this case, again, the latter would need to acquire a license for her use of the original work.

- **Under the applicable national law, the trade mark proprietor has acquired an implicit license for the use of the brand.**⁴⁴ In this case, she needs to determine, against under the applicable national law, the scope of that license, *i.e.*, where it is exclusive, whether it is limited to the use of the work as a trade mark, whether it entitles her to enforce it in court and invoke it in cancellation proceedings before the EUIPO.

41. The question of which of the above scenarios applies will have to be assessed on a case-by-case basis, taking into account the factors discussed below in this section. For the most part, the below analysis builds on prior research on AI-generated music by Oleksandr Bulayenko, João Pedro Quintais, Daniel Gervais, and Joost Poort as a part of the reCreating Europe project.⁴⁵

4.2 The brand design, a work in the meaning of copyright law?

42. To start at the beginning, no copyright protection would apply and any question as to copyright ownership and licensing would be meaningless if the brand simply does not meet the requirements for being considered as a work in the meaning of copyright law. Therefore, in the following, we must analyse what these requirements are. They are not expressly prescribed in EU legislation. They can, however, be derived from the case law of the CJEU who has gradually harmonised the concept of a “work”.⁴⁶ While this paper focuses mainly on the originality test and how it applies to brands created with AI assistance,⁴⁷ it addresses also issues more specifically relevant to the functionality of tools presented in section II above and their output, namely whether a distinction must be made between that output as primary work and the user’s redaction of its as a derivative work,⁴⁸ whether the data used in the process introduced third-party rights that the user must be aware of,⁴⁹ whether copyright protection

⁴³ See section 4.2.3.

⁴⁴ See section 5.3.

⁴⁵ BULAYENKO, O./ QUINTAIS, J.P./ GERVAIS, D./ POORT, J., ‘AI Music Outputs: Challenges to the copyright legal framework’ reCreating Europe Report (February 2022).

⁴⁶ BULAYENKO, O./ QUINTAIS, J.P./ GERVAIS, D./ POORT, J., ‘AI Music Outputs: Challenges to the copyright legal framework’ reCreating Europe Report (February 2022), p. 32 with further reference to large number of CJEU decisions from the period between 2009 and 2020.

⁴⁷ See sections 4.2.1. and 4.2.2.

⁴⁸ See section 4.2.3.

⁴⁹ See section 4.2.4.

applies for individual words,⁵⁰ and whether the aesthetic value of the output plays a role in the assessment as to whether it qualifies as a work in the meaning of copyright law.⁵¹

4.2.1. Originality test: Personal and creative choices

43. The concept of originality emerging from the CJEU's case law has the author's personal creative choices at its front and centre. In the *Cofemel* decision, the court found that the concept of "work" in the meaning of EU copyright law represents an expression of an original subject matter, *i.e.*, one that is the author's own intellectual creation.⁵² This concept can be found also in the earlier *Infopaq* decision of the CJEU.⁵³ It was also reaffirmed and refined in the *Painer* decision, which is particularly relevant for the discussion of AI-generated images such as logos as it deals with the use of (photography) technology for the creation of images. Here, the CJEU referred to Recital 17 of Directive 93/98 (now replaced by Directive 006/116/EC, *cf.* its Recital 16), which recalls that a photograph is considered to be the author's own intellectual creation if it reflects her personality. The court explained that this would be the case if the author has expressed her "creative abilities in the production of the work by making free and creative choices".⁵⁴ The definition of "own intellectual creation" as an expression of the author's "creative abilities in the production of the work by making free and creative choices" was later reaffirmed in the CJEU's *Funke Medien* decision.⁵⁵
44. Hence, to analyse whether a work is protected by copyright law, one would have to assess the free and creative choices made by its author and how they are reflected in the output. Where such free and creative choices cannot be identified, the work fails to meet the originality standard and remains unprotected in the public domain.⁵⁶

4.2.2. Applying the originality test to AI-assisted brand creation tools

45. *Buyalenko*, *Quintais*, *Gervais*, and *Poor*, following the CJEU's *Painer* decision, break down the creative process into three stages at which the author may make free and creative choices,

⁵⁰ See section 4.2.5.

⁵¹ See section 4.2.6.

⁵² CJEU, 12 September 2019, [C-683/17](#), (ECLI:EU:C:2019:721), *Cofemel*, para 29.

⁵³ CJEU, 16 July 2009, [C-5/08](#) (ECLI:EU:C:2018:899), *Infopaq*, para 37.

⁵⁴ CJEU, 1 December 2011, [C-145/10](#) (ECLI:EU:C:2011:798), *Painer*, paras 87 *et seq.*

⁵⁵ CJEU, 29 July 2019, [C-469/17](#) (ECLI:EU:C:2019:623), *Funke Medien*, para 19.

⁵⁶ This conclusion appears to be widely shared. BULAYENKO, O./ QUINTAIS, J.P./ GERVAIS, D./ POORT, J., 'AI Music Outputs: Challenges to the copyright legal framework' reCreating Europe Report (February 2022), p. 35 with further reference to IGLESIAS, M./ SHAMUILIA S./ ANDERBERG, A., *Intellectual Property and Artificial Intelligence: A Literature Review*, Luxembourg Publications Office of the European Union (2021) and to 30 reports of the AIPPI's National Groups and Independent Members, available under <https://aippi.soutron.net/Portal/Default/en-GB/Search/SimpleSearch>, accessed on 29 August 2022.

namely “conception”, “execution”, and “redaction”. At the conception stage, the author creates and elaborates the design or plan of work. Later, this plan is converted into a rough draft version of the work at the execution stage. Finally, this draft is reworked, refined, and finalised.⁵⁷ This approach is very useful when discussing AI-generated works in general and tools such as the ones presented in section II above.

46. The conception stage of the brand generation process is framed by choices made by the designer of the AI tool. Certainly, the designer of the tool is the one responsible for selecting the data set used for the training of the tool and required for generating the output. Data is a crucial component of every AI tool. The choices made by the designer in selecting the right data may be dictated by practical considerations relating to costs, the effort needed for labelling, and the tool’s efficacy. They will certainly be influenced by legal issues such as copyright and database rights. Choices made with such motivation will hardly qualify as a free and creative. On the contrary, they must be factored in as restrictions on the designer’s ability to make free and creative choices.
47. The designer may, however, also be guided by personal and subjective ideas, her sense of aesthetics, her values, and her beliefs. Such would be the case, if she decided to exclude a particular colour combination because it does not appeal to her or to exclude certain words from the tool because the designer associates them with something she finds objectionable. Such choices made by the design of the AI tool at the conception stage are very important as, if found to be free and creative, they will result in her being the author or at least a co-author of the output.
48. As demonstrated in section 2.3. above, Brandmark’s logo generator implements certain aesthetic rules, in order to match fonts, icons, and colours, *e.g.* it combines thick fonts with more “heavy” looking icons. By doing so, it makes aesthetic choices that a person other than the designer of the tool might make differently, *e.g.*, one could have a preference for contrast and find the matching of “light” icons with thick fonts more aesthetically impressive. Unless such aesthetic choices are dictated by the designer’s awareness of trends and widespread preferences within her target group of users and her objective to satisfy those preferences, they reflect a certain personal and subjective taste of the designer.
49. The Open AI researchers behind DALL·E assert that their model achieves better output

⁵⁷ BULAYENKO, O./ QUINTAIS, J.P./ GERVAIS, D./ POORT, J., ‘AI Music Outputs: Challenges to the copyright legal framework’ reCreating Europe Report (February 2022), p. 36.

vis-a-vis previous models whose results suffered from “object distortion, illogical object placement, or unnatural blending of foreground and background elements”.⁵⁸ Therefore, from the researchers’ perspective, their model’s success is measured in “fidelity”. In a paper published the following year, Open AI suggested a new, improved model, the one that is now behind DALL·E 2. Here, the researchers presented the outcomes of a survey as to how their new model’s results compare to other models in terms of photorealism, caption similarity, and sample diversity.⁵⁹ This, again, underscores that high image fidelity (not creativity or originality) was the objective of their effort. Indeed, on the website of DALL·E 2, the researchers express advertise the tool’s advantages over its precursor by asserting that it “generates more realistic and accurate images with 4x greater resolution”. Their “hope that DALL·E 2 will empower people to express themselves creatively”.⁶⁰ There is, therefore, no indication that the designers of the model themselves made free and creative choices influencing DALL·E 2’s output. The approach taken by the designers seems to be to achieve maximum fidelity precisely in order to leave maximum space for the users’ free and creative expression. However, there is one important exception. The website indicated that it has taken measures to prevent “harmful generations” and curb “misuse” relating to violent, hate, or adult images by removing such content from the training data.⁶¹

50. Throughout the process, the user is restricted by choices made by the designer of the tool such as the choice of the set of data, with which the tool works. The user is furthermore restricted by trade mark law or at least to the requirement that they be capable of identifying the relevant goods and services yet without being descriptive. The tools of Clarivate and Corsearch incorporate also a search and clearance function which means that they seek to create a brand that is dissimilar to already registered brands and unregistered signs such as common law trade marks in the USA. The decision to design the tool in such a way is made at the conception stage, yet it is not an expression of a free and creative choice. On the contrary, it is dictated by restraints required by trade mark law. Hence, when Corsearch’s tool assesses a candidate brand provided by the user, finds that there could be a likelihood of confusion with an earlier brand, and suggests a specific amendment,⁶² this amendment does not reflect anyone’s personal

⁵⁸ RAMESH, A./ PAVLOV, M./ GOH, G./ GRAY, G./ VOSS, C./ RADFORD, A./ CHEN, M./ SUTSKEVER, I., Zero-Shot Text-to-Image Generation (2021), [arXiv:2102.12092v2](https://arxiv.org/abs/2102.12092v2), p. 1 *et seq.*

⁵⁹ RAMESH, A./ DHARIWAL, P./ NICHOL, A./ CHU., C./ CHEN, M., Hierarchical Text-Conditional Image Generation with CLIP Latents (2022), [arXiv:2204.06125v1](https://arxiv.org/abs/2204.06125v1), pp. 10 *et seq.*

⁶⁰ Website of Open AI’s DALL·E, available under <https://openai.com/dall-e-2/>, accessed on 18 September 2022.

⁶¹ Website of Open AI’s DALL·E, “Preventing Harmful Generations”, available under <https://openai.com/dall-e-2/>, accessed on 18 September 2022.

⁶² See section 2.1,

creativity but merely responds to a constraint imposed by trade mark law. No one can claim copyright for this amendment.

51. The user of the AI tool participates in an important way also at the conception stage by providing the tool with the necessary input. There is no doubt that some of the more recent and very powerful tools mentioned above in section 2.5 are able to accommodate some of the most creative user inputs.⁶³ Again, each of the choices made by the user must be assessed individually. For example, it is doubtful if, by choosing styles such as “alternate spelling” or “randomness” in Namelix, the user is expressing her creative personality. Such decisions are too abstract and unspecific to express anything individual, let alone the user’s creativity. Where the user is prompted to choose a colour or a colour combination, this frame offers the user a somewhat larger space for creative expression. The user enjoys a significantly higher degree of creativity where she is prompted to freely indicate keywords. This, however, does not mean that she will make use of this opportunity. Not every keyword expresses a creative choice. A keyword that is descriptive of the relevant goods and services remains below the threshold of originality. One example of truly creative user input which is reflected in the output is offered by Dall-E’s image generation system where users are prompted to indicate not just mere keywords but may enter whole sentences.
52. Certainly, the redaction stage is where the user can most freely express her creative personality. Here, Brandmark’s logo generation tool and Namelix as well as Looka provide her with many tools allowing her to change every element of the output, which could result in a brand that has nothing in common with the one suggested by the tool.

4.2.3. Derivative works

53. Therefore, the redaction stage deserves specific attention. Here, the tool presents its output to the user and invites her to change it. Arguably, the changes made at this stage constitute the creation of a new work, a derivative work in the sense of Articles 12 and 14 of the Berne Convention. On one hand, there is the AI-generated output as the primary work whose qualification for copyright protection must be assessed based on the free and creative choices

⁶³ There can hardly be a better illustration of the free and (very) creative choices made by Midjourney users than the ones featured in a recent episode of John Oliver’s HBO show “Last Week Tonight”, including numerous user inputs and corresponding output image of the late night host looking confused in a cabbage field, giving TED talks about cabbage growth, throwing a cabbage at a child, having a dinner with a cabbage and realizing he judged the cabbage too soon, falling in love with the cabbage, and, tragically, involuntarily eating the cabbage in his sleep. Notably, the tool did not manage to produce satisfactory results for an user input to the effect of John Oliver marrying a cabbage. See AI Images: Last week Tonight with John Oliver (HBO), available on <https://www.youtube.com/watch?v=3YNku5FKWjw>, accessed on 31 August 2022.

made by the tool designer and the user at the conception and execution stages of the brand generation process. On the other hand, there is the derivative work based on that primary work and the free and creative choices made by the user at the redaction stage of the process. The AI tool's invitation to the user to edit its output may, depending on the applicable national law,⁶⁴ be regarded as an authorisation to utilise that output in the derivative work. This interpretation is particularly favourable for the trade mark proprietor as it leaves her as the sole copyright holder whose derivative work does not infringe the copyright, if any, of the tool's designer.

54. This distinction between a primary and a secondary work presupposes that the AI output has been (at least partly) reproduced, adapted, or altered at the redaction stage.⁶⁵ However, the user is under no obligation to make use of the customisation opportunities the tool offers at the redaction stage. Where she simply chooses one of the AI-generated suggestions provided by the tool and refrains from changing it, the user does not create a derivative work. No derivative work emerges also in the opposite extreme, *i.e.*, where the user makes such extensive use of the redaction opportunities that it leaves no trace left of the original suggestion of the AI tool. Where this is the case, the work emerging from the redaction stage of the brand creation process is not a derivative work but a primary work in its own right.

4.2.4. Use of data and related third-party rights

55. The notion of derivative works introduces a new level of complexity to the already difficult subject matter, namely the role that the training data plays. Is using copyright-protected works to train an AI model and ultimately produce an output infringing that copyright? According to *Bulayenko, Quintais, Gervais, and Poor*, the answer to this question would, in most cases, be no, provided that the original works are not reproduced in the secondary work.⁶⁶ In that, they agree with previous elaborations on this problem by *Gervais*⁶⁷ and *Iglesias, Shamuilia and Anderberg*.⁶⁸ Hence, the output of tools such as the ones of DALL·E, Midjourney, and Stable Diffusion represents an original work in its own right and does not require a license from the owner of the training data as long as the latter is not reproduced in the output. This is because while these tools use very large data sets to learn to see images as humans do, they do not use

⁶⁴ With the exception of computer programs and databases, the law on derivative works is not harmonised across the EU. See CJEU, C-419/13 (ECLI:EU:C:2015:27), *Allposters*.

⁶⁵ MARGONI, T., 'Artificial Intelligence, Machine Learning and EU Copyright Law: Who Owns AI?' CREATE Working Paper Series, University of Glasgow (2018), p. 192.

⁶⁶ BULAYENKO, O./ QUINTAIS, J.P./ GERVAIS, D./ POORT, J., 'AI Music Outputs: Challenges to the copyright legal framework' *reCreating Europe Report* (February 2022), p. 36.

⁶⁷ GERVAIS, D., 'The Machine as Author', in *Iowa Law Review* (Volume. 105:2053), p. 2097.

⁶⁸ IGLESIAS, M./ SHAMUILIA S./ ANDERBERG, A., *Intellectual Property and Artificial Intelligence: A Literature Review*, Luxembourg Publications Office of the European Union (2021) p. 9.

that data in their output.

56. An important distinction must be made here between such tools using machine learning AI and others such as the ones of Brandmark which do not. The data Brandmark relies on is not training data to help the tool recognise patterns in text and images. Brandmark uses databases to draw from them certain elements, *e.g.*, figurative elements, and reproduce them in its output instead of creating them from scratch. Such output, therefore, must be regarded as derivative work utilizing the primary works contained in the database. This further complicates the legal assessment of the ultimate brand design. Because of this, to be sure that its logo is free from third-party claims, the trade mark proprietor must verify that the tool’s output as well as the changes she introduces at the redaction stage are covered by a valid authorisation.

4.2.5. Copyright protection for individual words

57. As shown in section II above, the creation of a name is part of the service that some of the brand generation tools provide.⁶⁹ Names of products and companies typically consist of just a few words or, as the case may be, of just one word. Do such extremely brief creations qualify for copyright protection?
58. At first sight, the *Infopaq* judgment of the CJEU seems to deny copyright protection for individual words. It expressly states that “[w]ords as such do not [...] constitute elements covered by the protection.”⁷⁰ The court then goes on to explain that, nevertheless, individual sentences or even parts of sentences “may be suitable for conveying to the reader the originality of a publication [...] the expression of the intellectual creation of the author [...]”.⁷¹ To arrive at this conclusion, the CJEU invoked the “requirement of a broad interpretation of the scope of protection conferred by Article 2” of the Infosoc Directive.⁷² Therefore, the CJEU found that text extracts of eleven words may qualify as works in the meaning of EU copyright law.
59. The finding that “individual words” do not qualify for copyright protection should not be misinterpreted or taken out of its context. In the *Infopaq II* judgment as cited above, the CJEU merely elaborates that individual words, which are commonplace in the respective language,

⁶⁹ Coresearch, Clarivate, and Namelix generate names. In the case of Namelix, the tool provides images typically consisting of a name written in colour and in a specific font and put against a background of a different colour. Looka and the logo-generation tool of Brandmark do not create new names but rather use pre-existing ones as inputs in order to generate new images.

⁷⁰ CJEU, 16 July 2009, [C-5/08](#), (ECLI:EU:C:2009:465), *Infopaq*, para 46.

⁷¹ CJEU, 16 July 2009, [C-5/08](#), (ECLI:EU:C:2009:465), *Infopaq*, para 47.

⁷² CJEU, 16 July 2009, [C-5/08](#), (ECLI:EU:C:2009:465), *Infopaq*, para 47.

would not offer sufficient space for their author to express her intellectual creativity. The *Infopaq II* decision did not deal with brands or other types of names but with extracts from journalistic articles. Such articles typically seek to explain an event in accessible language and not to impress the reader with their originality. It is, therefore, understandable that common words such as the ones used for journalistic reporting cannot express individual creativity.

60. An output produced by Namelix may go beyond being a mere word, especially if the user chooses options such as “high randomness”, “alternate spelling”, “compound words” or “brandable names”. Outputs such as “Brownto” and “Wondre”⁷³ are by no means commonplace in the English language. Even though they are so short, they are the product of their inventor’s creative choices and express originality. This argument is reflected in the evolution of the jurisprudence of the Austrian Supreme Court. Back in 1987, the court held that “[a] single word can never be a ‘linguistic work’; for this, a linguistic structure would have to be present, which makes the word formation a linguistic work. This is missing if there are only single words or only a short sentence.”⁷⁴ The court later reaffirmed its position in 1997.⁷⁵ However, in 2011, *i.e.*, two years after the CJEU’s *Infopaq II* decision denying single words the quality of works under copyright law, the Austrian Supreme Court found that an exception must be made for “individually peculiar linguistic word formations”.⁷⁶ The court reaffirmed this finding in 2019.⁷⁷ In both of the latter cases, the Austrian Supreme Court added that a brand would lack originality in the meaning of copyright law if its conceptual content is limited to “an obvious association with the product” designated by it.⁷⁸
61. In a language, words are not merely a collection of sounds/letters. They convey meaning, they contain a reference to an object or a concept. Where this reference has become commonplace in a language, it does not offer sufficient “space” for its users to express their creativity. Using a word in its dictionary meaning is the opposite of an expression of a creative choice. Where, however, the user creates an entirely new reference, a reference never before used for a subject or a concept, this creative act may very well be deemed to express the author’s personal choices. The word “cherish” is a common verb in the English language. In its dictionary meaning, it represents a reference to the state of feeling affection or holding something dear. It

⁷³ Both names were generated by the author of this paper using Namelix.

⁷⁴ Austrian Supreme Court, 17 February 1987, [4 Ob 405/86](#), concerning the brand “Radial”.

⁷⁵ Austrian Supreme Court, 22 April 1997, [4 Ob 96/97i](#) concerning the brand “Ramtha”.

⁷⁶ Austrian Supreme Court, 15 February 2011, [4 Ob 110/10w](#), for the brand “Musiktruch’n”.

⁷⁷ Austrian Supreme Court, 26 February 2019, [4 Ob 14/19s](#) for the brand “Biosativa”.

⁷⁸ Austrian Supreme Court, 15 February 2011, [4 Ob 110/10w](#), para 1.2; Austrian Supreme Court, 26 February 2019, [4Ob14/19s](#), para 2.2.

is easy to see that this reference cannot express anyone's individual character and its use is not based on a personal and creative choice. When, however, the same collection of letters and sounds represents a reference to a specific agricultural producer's cherries, *i.e.*, when used as a brand, this reference is entirely new. Even though the collection of words and sounds expressing it may be very short, it is large enough to host an original new reference and express the author's creative choices.

62. This conclusion is highly relevant for brands. Brands help consumers grasp the market in its sheer vastness by creating shortcuts. To be effective, shortcuts must be short. At the same time, to be registrable as word marks, they may not be used in their dictionary meaning as this would represent an absolute ground for refusal under Article 7(1)(c) or (d) EUTMR. There are, however, numerous examples of famous brands using common words to refer, in an original way, not to their dictionary meaning but to something completely different or even counter-intuitive, e.g., "Apple", "Windows" and "Alphabet" for technology, "Puma" for sportswear, "Jaguar" for luxurious cars etc. Such brands are not just registrable as trade marks under the EUTMR, but also, though they may be very short, protected under EU copyright law.
63. Notably, the above conclusion, applicable strictly to common-place words used as brands, requires that the AI-based brand generation process is conducted with the specific goods or services in mind. This will be easier to confirm with respect to the user of the AI tool and future trade mark proprietor than for the designer of the AI tool. Apart from the very unlikely case that the AI tool has been designed uniquely for the creation of one specific brand, the latter's personal creative choices are unlikely to relate to the trade mark proprietor's goods and services. This applies also where the tool prompts the user to indicate the specific goods and services as input for the AI tool. What establishes a link between the word and its object is the user through her input, not the design of the AI tool. In this respect, an AI tool designed for mass use is different from a service provided by a creative professional suggesting a short and common word mark for the specific goods or services of her client.

4.2.6. The brand's aesthetic value does not play a role

64. Importantly, the qualification of a brand as work under EU copyright law does not depend on its aesthetic merit. In its 2019 decision in *Cofemel*, the CJEU refused to consider the aesthetic visual effect of a clothing design as a factor in its assessment of whether it represents a work in the meaning of the Infosoc directive.⁷⁹ It is therefore irrelevant whether the AI output is

⁷⁹ CJEU, 12 September 2019, [C-683/17](#), (ECLI:EU:C:2019:721), *Cofemel*, paras 54 *et seq.*

interesting, beautiful, or commercially valuable.⁸⁰

65. Namelix and the logo creation tools of Brandmark and Looka provide a seemingly endless number of outputs, some of which may be considered to be of questionable aesthetic value and may fail to meet the artistic degree required under some EU Member States. Indeed, in Germany, works in the meaning of copyright must exhibit sufficient “Schöpfungshöhe“, *i.e.*, a certain level of creativity, which is understood to include aesthetic aspects. In its 2013 decision *Geburtstagszug*, the German Supreme Court re-defined the notion of “Schöpfungshöhe” as part of the definition of “personal intellectual creation”. It found that “[a] personal intellectual creation is a creation of individual character whose aesthetic content has reached such a degree that, in the opinion of circles receptive to art and reasonably familiar with art views, it is possible to speak of an ‘artistic’ performance.”⁸¹ The importance of this requirement was most recently demonstrated in a decision the Higher Regional Court of Frankfurt handed down just three months before the *Cofemel* judgment of the CJEU. There, the German court found that a logo fails to meet the “Schöpfungshöhe“ requirement and was, therefore, not protected by copyright. It explained that “the minimum degree of aesthetic content required for a work of art has not been achieved by the graphical realisation here. A sign has been created which, in accordance with its objective, is distinctive within the meaning of Section 3(1) of the Trade Mark Act, but lacks an artistic claim which exceeds the purpose of its use.”⁸²
66. However, in light of the *Cofemel* judgment of the CJEU, aesthetics no longer play a role. Hence, all of the outputs generated by the AI-powered could potentially qualify as works in the meaning of EU copyright law, regardless of whether their “aesthetic content”.

V. AUTHORISATION

67. Where, as in the case of copyright in AI-generated brands, technological complexity meets legal uncertainty, contracting parties often make broad use of the private autonomy afforded to them by the applicable law to bring clarity and predictability to their business relationship. Indeed, the contractual agreement between the user and the AI tool designer plays a decisive role in the avoidance or realisation of the scenarios presented in section III above. A trade mark proprietor who has acquired comprehensive and exclusive authorisation from the AI tool designer does not need to fear copyright infringement claims or that her trade mark will be

⁸⁰ BULAYENKO, O./ QUINTAIS, J.P./ GERVAIS, D./ POORT, J., ‘AI Music Outputs: Challenges to the copyright legal framework’ reCreating Europe Report (February 2022), p. 33 *et seq.*

⁸¹ German Supreme Court, 13 November 2013, [I ZR 143/12](#), para 15.

⁸² Higher Regional Court of Frankfurt, 12 June 2019, [11 U 51/18](#), p. 6.

invalidated.

68. Notably, contracts can only mitigate, not fully resolve the problems of legal uncertainty. One important downside of a comprehensive authorisation is that it will likely form an important factor in the price of the agreement, regardless of whether the AI tool designer is indeed entitled under the applicable copyright law to give such authorisation in the first place. Depending on the applicable civil law the contracting parties have agreed to apply to their contract, the absence of such a right to give authorisation on the party promising it might result in the contract being susceptible to (partial or wholesale) annulment due to error.
69. Another important limitation of the attempt to solve legal uncertainty through contracting tools is that AI tools for brand generation as discussed in this paper are made for mass use. Hence, it is not realistically possible to negotiate individual agreements taking into account the specific circumstances of the case, in particular the use made of the tool. Yet, such circumstances may be decisive for the copyright assessment. As demonstrated in section IV above, whether and whose copyright pertains to an AI-generated brand does not depend simply on the tool but also on the particular way use is made of it in every specific case. A user who foregoes most of the tool's opportunities to make creative choices is less likely to be considered a co-author of the output.
70. Even though individual negotiations are unlikely to take place, an AI tool designer's general terms of service can be as sophisticated as to foresee different use scenarios and provide different legal consequences for them. In an entirely different approach, the designer may decide to resolve any uncertainty by agreeing on a wholesale waiver of any copyright it may or may not be entitled to.
71. However, as will be demonstrated below, they often fail to do so. In the following, let us analyze the terms of service of Brandmark and Looka. While they both provide for the application of Canadian law, we will assess them from the perspective of EU law.

5.1 Brandmark's terms of service

72. Brandmark's website advertises its service, i.a., by asserting that "full copyright" is "included" "[f]or use in commercial and personal projects".⁸³ However, its terms of service⁸⁴ make no mention of the term "license". On the contrary, by Section 2, the user agrees "not to reproduce,

⁸³ Brandmark's website, available under <https://brandmark.io/>, accessed on 25 September 2022.

⁸⁴ The company's terms of service apply also to its tool Namelix. They were provided, upon request, to the author of this paper on 18 August 2022.

duplicate, copy, sell, resell or exploit any portion of the Service, use of the Service, or access to the Service or any contact on the website through which the service is provided, without express written permission” by Brandmark. In contrast to the terms of service of Looka as discussed below, Brandmark does not distinguish between its services and their end products. Given how broad this provision is and that it applies also to “any portion of the Service”⁸⁵, unfortunately for Brandmark’s users, it is not possible to exclude a contract interpretation, according to which the AI output is included in the term “service” and requires Brandmark’s express authorisation to be reproduced by the user.

73. Hence, instead of granting the future trade mark proprietor a license to use the brand in commerce, the designer of the AI tool does the opposite by making such use subject to written authorisation and excluding the possibility of granting such authorisation implicitly. A user will therefore find it difficult to argue that Brandmark’s consent to the purchase of a brand represents implicit permission to use it as such. A granting of a license for the reproduction of the brand is reserved for a separate contract. Apart from making implicit licenses impossible, this section of the terms of service also overrides any otherwise applicable non-mandatory statutory provision in the style of the US “works made for hire” as discussed in section 5.3. below.
74. A user would then be left with the option to argue that no license is needed at all because Brandmark is not entitled to copyright protection in the first place. This defence, however, is also likely to fail because of the very broad language of Section 2. It does not relate to copyright or any other statutory protection right. Instead, it creates a broad contractual exclusion right in favour of the service provider. Therefore, regardless of Brandmark’s status as an author, the company can still prohibit the use of the AI output and claim (contractual) infringement in the case a trade mark holder uses it in commerce.
75. Still, if Brandmark is found not to be the author of the AI output, the trade mark owner would at least not have to fear invalidation. While the list of relative grounds for invalidation in Article 60 (2) EUTMR is non-exhaustive, it is at least limited to grounds “under EU legislation or national law [...]” and, therefore, does not include rights of contractual nature such as the one created by Section 2 of the Brandmark terms of service.⁸⁶

⁸⁵ Brandmark’s terms of service do not define the term “Service“ even though it is written with a capital “S”.

⁸⁶ KUR, A., ‘Chapter 9: Cancellation and loss of trade mark rights’, in KUR, A./ SENFTLEBEN, M. (eds), *European trade mark law*, Oxford University Press (2017), p. 546; KEELING, D.T./ CLEGG, J., ‘Chapter VI: Surrender, Revocation and Invalidity’, in VON BOMHARD, V./ VON MÜHLENDAHL (eds), *Concise Commentary of European IP law*, Volume 6 (2018), pp.309 – 349, at section 3(c).

76. A much more promising defence for the trade mark proprietor would be to argue that her brand is a derivative work and that Brandmark has given her the express and written authorisation for the creation of such derivative works required by section 2 of the terms of service, by inviting her to edit the AI output. The trade mark holder will, in such a case, have to demonstrate that she has indeed made use of this authorisation and has amended the original work, *i.e.*, the AI output, by making free and creative choices entitling her (and her only) copyright protection with respect to the secondary work.
77. Another important provision is contained in Section 13. In accordance with it, the user expressly agrees that Brandmark’s service is provided “as is” and “as available”, “without any representation, warranties or conditions of any kind, either express or implied, including [...] non-infringement.” Such warranties, however, may be important when it comes to third-party claims relating to the AI output. As discussed above,⁸⁷ the data set used by the tool may itself be subject to copyright protection. Pursuant to Section 13 of the Brandmark terms of service, the trade mark owner will not be entitled to indemnification from the designer of the AI tool, if a copyright-protected element from the database used by the AI tool is reproduced in the AI output and, ultimately, in the brand as used in commerce. The author of that copyright-protected element may prohibit its use and raise copyright infringement claims against the trade mark proprietor, who has neither a license (by that author) nor a sub-license (by the designer of the AI tool) to use that element.

5.2. Looka’s terms of service

78. Looka’s terms of service⁸⁸ are tailor-made for its services and a lot more sophisticated. They distinguish between “paid designs”, “unpaid designs”, “design resources”, and “third party design resources” and provide for different legal treatment for each of those.
79. Paid designs are the ultimate end products that the user will obtain from Looka to use as logos in commerce. Section 1(b) of the terms clarifies that, upon having paid for such an end product, the user may download it and use it outside Looka’s site for private or commercial purposes. Notably, nothing in the language of this provision allows us to conclude that the license is exclusive.
80. Unpaid licenses are defined as such that Looka shows to the user during the design generation process. The terms clarify that the latter has no right to use them. The same is true for all

⁸⁷ See section 4.2.4.

⁸⁸ Looka’s terms (last updated on 29 March 2019) are available under <https://looka.com/terms/>, accessed on 30 August 2022.

symbols, colours, fonts, and other design elements, which the terms collectively refer to as “design resources”.

81. Finally, and crucially, Section 1(d) of the terms clarifies that Looka also uses design resources belonging to third parties. They then go to great lengths to provide that it is the user’s responsibility to verify that she is entitled to those and that Looka bears no responsibility or liability for any infringement of those third-party rights. The terms emphasise, in capital letters, that the user will be using these resources at her own risk and that she shall “abide by all copyright notices, trademark rules, and shall not use, copy reproduce, modify, translate, publish, broadcast, transmit, distribute, perform, uploads, display license, sub-license, rent, lend, assign, gift, sell or otherwise transfer or distribute for any purposes whatsoever any portion of the Design Resources” not owned by the user without the required consent. Furthermore, the terms expressly exclude Looka’s liability for any of the design resources. The user expressly agrees to evaluate and bear all risks associated with the use of the resources, including any third-party rights.
82. On balance, Looka’s terms provide a lot more clarity than the ones of Brandmark. This, in itself, is a major advantage. In addition, while remaining very restrictive, they at least expressly entitle the user to use the end product outside the platform. However, the fact that Looka does not assume any responsibility for any of the third-party resources it makes available puts a very large question mark on the legality of the use of the end product. This is further exacerbated by the fact that the third parties are not indicated in the terms nor are the third party resources indicated as such on the platform. Hence, it is practically very burdensome for the user to first distinguish between Looka’s design resources and those of third parties and then verify that her use of these resources is authorised by them.

5.3. An implicit license under national copyright law

83. Where the agreement between the designer of the AI tool and its user remains silent about copyright, this issue will be governed by statutory law. In the United States, users might benefit from the concept of “work made for hire” as defined in 17 U.S. Code § 101. Pursuant to 17 U.S. Code § 201(b), “the employer or other person for whom the work was prepared is considered the author for purposes of this title, and, unless the parties have expressly agreed otherwise in a written instrument signed by them, owns all of the rights comprised in the copyright”. This represents an important exception from the general rule of 17 U.S. Code § 201(a) that the author is the one who creates the work, the one who “translates an idea into a

fixed tangible expression entitled to copyright protection.” As the US Supreme Court clarified in *Community for Creative Non-Violence v. Reid*, 490 U.S. 730 (1989), depending on the circumstances of the case, the employment relationship referred to in the statutory definition of “work made for hire” may extend to agency agreements.⁸⁹ Notably, 17 U.S. Code § 201(b) does not establish a license between the contracting parties. It provides that the initial copyright belongs to the person for whom the work was prepared.

84. In the European Union, such provisions are rare. Article 2(3) of Directive 2009/24/EC (hereinafter the “*Software Directive*”) provides that if a computer program is created by an employee in the execution of her duties or following her employer’s instructions, it is the employer who is initially entitled to the economic rights pertaining to the computer program. Hence, no explicit or implicit license is necessary.
85. Apart from this, the EU Member States may have legislation allowing courts to find implicit licenses and to determine their scopes. In such cases, the copyright remains in the ownership of the creator of the work. The person who commissioned it is merely entitled to a license. In Germany, in a 2019 decision, the Higher Regional Court of Frankfurt found an implicit copyright license in the contract between the designer of a logo and the person who has commissioned it.⁹⁰ The court relied on the second sentence of Section 31(5) of the German Copyright Act which provides that, if an authorisation to use has not been expressly agreed upon between the parties, its existence may nevertheless be derived from the purpose of the contract. In accordance with the first sentence of the said provision, the extent of the implicitly authorised exploitation also reflects the purpose of the contract. Therefore, the court found that the scope was broad and highlighted that the designer agency itself did not have any intention to use the logo.
86. In a 1998 case, the High Court of England and Wales ruled in a similar way by finding an implied license between Mr. Ray, an expert who had created catalogues of music for Classic FM, and that radio station. The court however did not interpret that implied license as broad as to include the exploitation of the catalogues outside of the UK.⁹¹ This landmark decision was later echoed in *Fresh Trading Limited v Deepend Fresh Recovery Limited and Andrew Thomas Robert Chappell* [2015] EWHC 52 (Ch), where the High Court found that a design agency had assigned (not merely licensed) to its client the copyright over a logo. Discussing

⁸⁹ *Community for Creative Non-Violence v. Reid*, 490 U.S. 730 (1989), pp. [490 U.S. 737-751](#).

⁹⁰ Higher Regional Court of Frankfurt, 12 June 2019, [11 U 51/18](#), at 2(d).

⁹¹ *Ray v Classic FM* [1998] FSR 622 (ChD).

the scope of the assignment, the court found it important that the design agency had created the marketing materials exclusively for its client and that the court could not realistically envisage the marketing agency using the logo for itself or other clients.⁹²

87. The same considerations may be applied to brand design generated not by creative professionals but, instead, with the help of an AI tool. In such a case, again, the contract between the user and the tool's designer will be found to include a broad implicit license for the use of the brand as such in commerce and, because the AI tool's designer will likely lack any intention to also use the brand for its own business, that broad implicit license will be considered but be also an exclusive one.

VI. CONCLUSION

88. National law provisions such as the above may be a viable solution to the problems discussed in this paper. They could make sure that the future trade mark proprietor is free to reproduce the brand and disclose it to the public. At the same time, they could provide flexibility. Courts not only will find a license, where none has been expressly agreed but will also tailor it to the purposes of the parties' contact.
89. Will this allow them to conclude that the license is of exclusive nature? Such a conclusion may be derived from the purpose of work, of which both parties positively know that it will be used as a brand, *i.e.*, to give identity to services or products and to exclude others from using it. But does this implicit authorisation also relate to goods and services that are not similar to the ones offered by the user at the time of the signing of the contract with the designer of the AI tool? Where this is not the case, depending on the specific national law, the holder of a non-exclusive license may not be entitled to raise claims for copyright infringement against third parties. Therefore, she will not be able to prohibit the use of the brand by such other traders neither under copyright nor under trade mark law, nor would she be able to invalidate a trade mark registered for such dissimilar goods and services.
90. Therefore, the best solution remains for the parties to agree on bespoke contract terms. Unfortunately for the users, the examples for terms of reference discussed in this paper illustrate the power asymmetry between the parties. Companies which lack the privilege of a marketing department capable to create a brand in-house and do not have the budget to hire a creative agency, regularly also lack the legal sophistication to fully understand the pitfalls of

⁹² Fresh Trading Limited v Deepend Fresh Recovery Limited and Andrew Thomas Robert Chappell [2015] EWHC 52 (Ch), para. 54.

the intertwining of copyright and trade mark law, let alone to assess to whom authorship pertains when it comes to works created with the help of AI or how the information asymmetry between them and the tool's designers will play out in court proceedings or before the EUIPO.

BIBLIOGRAPHY

- BULAYENKO, O./ QUINTAIS, J.P./ GERVAIS, D./ POORT, J., 'AI Music Outputs: Challenges to the copyright legal framework' reCreating Europe Report (February 2022)
- GERVAIS, D., 'The Machine as Author', in *Iowa Law Review* (Volume. 105:2053), pp. 2053 to 2105
- FAIRHURST, O., 'Copyright in logos: English court finds infringement of stag's head log' in *Journal of Intellectual Property Law & Practice*, 2019, Volume 14, Issue 9, pp. 662 to 664
- KEELING, D.T./ CLEGG, J., 'Chapter VI: Surrender, Revocation and Invalidity', in VON BOMHARD, V./ VON MÜHLEND AHL (eds), *Concise Commentary of European IP law*, Volume 6 (2018), pp. 309 – 349
- KUR, A., 'Chapter 9: Cancellation and loss of trade mark rights', in KUR, A./ SENFTLEBEN, M. (eds), *European trade mark law*, Oxford University Press (2017), pp. 527 to 558
- IGLESIAS, M./ SHAMUILIA S./ ANDERBERG, A., *Intellectual Property and Artificial Intelligence: A Literature Review*, Luxembourg Publications Office of the European Union (2021)
- MANSIMOV, E./ PARISOTTO/ E., LEI BA, J./ SALAKHUTDINOV, R., *Generating Images from Captions with Attention*, published at ICLR 2016, [arXiv:1511.02793v2](https://arxiv.org/abs/1511.02793v2),
- MARGONI, T., 'Artificial Intelligence, Machine Learning and EU Copyright Law: Who Owns AI?' CREATE Working Paper Series, University of Glasgow (2018)
- RENDAS, T., *Exceptions in EU Copyright Law*, Wolters Kluwer (2021)
- RAMESH, A./ PAVLOV, M./ GOH, G./ GRAY, G./ VOSS, C./ RADFORD, A./ CHEN, M./ SUTSKEVER, I., *Zero-Shot Text-to-Image Generation* (2021), [arXiv:2102.12092v2](https://arxiv.org/abs/2102.12092v2)
- RAMESH, A./ DHARIWAL, P./ NICHOL, A./ CHU., C./ CHEN, M., *Hierarchical Text-Conditional Image Generation with CLIP Latents* (2022), [arXiv:2204.06125v1](https://arxiv.org/abs/2204.06125v1)

CASE LAW

1. EUIPO Board of Appeal, [R 1235/2009-1](#)
2. CJEU, 5 July 2011, [C-263/09 P](#) (EU:C:2011:452), Elio Fiorucci
3. CJEU, 16 July 2009, [C-5/08](#) (ECLI:EU:C:2009:465), Infopaq
4. CJEU, 12 September 2019, [C-683/17](#), (ECLI:EU:C:2019:721), Cofemel
5. CJEU, 7 December 2006, [C-306/05](#), (ECLI:EU:C:2006:764), SGAE
6. CJEU, 12 September 2019, [C-683/17](#), (ECLI:EU:C:2019:721), Cofemel
7. CJEU, 1 December 2011, [C-145/10](#) (ECLI:EU:C:2011:798), Painer
8. CJEU, 29 July 2019, C-469/17 (ECLI:EU:C:2019:623), Funke Medien
9. CJEU, C-419/13 (ECLI:EU:C:2015:27), Allposters
10. German Supreme Court, 13 November 2013, [I ZR 143/12](#)
11. Higher Regional Court of Frankfurt, 12 June 2019, [11 U 51/18](#)
12. Austrian Supreme Court, 17 February 1987, [4 Ob 405/86](#)
13. Austrian Supreme Court, 22 April 1997, [4 Ob 96/97i](#)
14. Austrian Supreme Court, 15 February 2011, [4 Ob 110/10w](#)
15. Austrian Supreme Court, 26 February 2019, [4 Ob 14/19s](#) for the brand “Biosativa”
16. Community for Creative Non-Violence v. Reid, 490 U.S. 730 (1989)
17. Ray v Classic FM [1998] FSR 622 (ChD)
18. Fresh Trading Limited v Deepend Fresh Recovery Limited and Andrew Thomas Robert Chappell [2015] EWHC 52 (Ch)