

ARTIFICIAL INTELLIGENCE CREATIONS AND ORIGINALITY.

APPROACH OF EUROPEAN UNION LAW

Julien DOUILLARD

Associate Professor, Toulouse 1 Capitole University

1. Developments in computer science have made it possible to create algorithms that can produce astonishing creations, to the point where it is not possible to know whether they are the result of the machine or of the Human. It is now classic to wonder about the protectable character of these creations.

2. **Stakes.** We must agree that the protection of artificial intelligence creations presents important stakes.

First, the question has a social aspect. The protection of the creations of artificial intelligence leads to question the place that society wants to give to the author understood as a physical person. Indeed, AI can create much faster than a human. There is therefore a risk of devaluing the role of the artist, but also of concentrating creations in the hands of a few people, and perhaps of saturation¹.

Above all, we must consider the economic issues. The European Union claims that artificial intelligence is a tool for economic growth³. Given the stakes involved in the commercial exploitation of these creations, in the absence of protection, there is a risk of fraud. Users of artificial intelligence will be tempted to declare that the creation is theirs.

¹ Thus, new creations could not be freely exploited without encroaching on the many creations generated by artificial intelligence.

³ Although it seems useful to specify that these issues are more assertive than demonstrated by the EU.

Ultimately, the question of protecting artificial intelligence creations is more of a philosophical or political nature⁵.

3. Evolution of the notion of originality. Traditionally, it is objected that a creation of artificial intelligence could not be original⁶. For its part, the European Parliament "*considers that works autonomously produced by artificial agents and robots might not be eligible for copyright protection, in order to observe the principle of originality, which is linked to a natural person, and since the concept of 'intellectual creation' addresses the author's personality*"⁷. It is necessary to measure here all the influence of the most classic doctrine, from which it is sometimes difficult to escape⁸. According to this doctrine, in order to be original, a work must show the imprint of the personality of its author. Yet, the creations generated by artificial intelligence seem to leave little room for personality. They seem to be more the result of an algorithm than of a human.

This so-called personalist conception was nevertheless hardly conducive to software, for which protection is based on author right. The concept has therefore been revisited. It has come closer to the notion of novelty. About ten years ago, the CJEU took up the notion of originality. It wanted to make it a single concept, uniformly applicable to all works, whether they are "pure" works of art, utilitarian works or software.

4. Purpose of the demonstration. It is already clear that the notion of originality has evolved to make room for new objects such as softwares or

⁵ It was political considerations that led to the recognition of the protection of software under author right.

⁶ See e.g. A. -S. SKREBERS, "Intelligence artificielle et droit d'auteur", in *L'entreprise et l'intelligence artificielle. Les réponses du droit*, Institut Fédératif de Recherche - UT1, 2022, p.277; H. AOKI, "Discussion of copyright protection for AI-Created Works in Japan," in *L'entreprise et l'intelligence artificielle. Les réponses du droit*, Institut Fédératif de Recherche - UT1, 2022, p. 269. - Contra, J. LARRIEU, " Le robot et le droit d'auteur ", in *Mélanges en l'honneur d'André Lucas*, Lexis Nexis, 2014, p. 465

⁷ Intellectual property rights for the development of artificial intelligence-related technologies. European Parliament resolution of October 20, 2020 on intellectual property rights for the development of artificial intelligence-related technologies, (2020/2015(INI)), pt. 15.

⁸ On the role of doctrine in general, see Ph. Jestaz and Ch. Jamin, *La doctrine*, Dalloz, coll. Méthodes du droit, 2004, p. 217 and following.

databases in the field of author right. It would therefore be wrong to believe that the notion cannot evolve to include creations generated by artificial intelligence. In addition, the evolution of the definition of originality inspired by the Court of Justice of the European Union could allow, in the future, to capture the creations of artificial intelligence. Indeed, the definition of the Court of Justice has, in part, objectified the notion of originality (§ 1). However, in its latest version, the definition of originality, as defined by the Court of Justice, could imperfectly covers the creations of artificial intelligence (§ 2). We will consider successively these two aspects of the definition of originality, to confront them with the creations of artificial intelligence.

§1. – THE OBJECTIVIZATION OF ORIGINALITY

A. – INFLUENCE OF THE SOFTWARE

5. The directive of May 14, 1991, concerning the legal protection of computer programs granted protection to a computer program on the condition that it was "*original, in the sense that it is the author's own intellectual creation*"¹². This criterion alone must be sufficient.

6. The definition used by these texts seems, foreign to the personalist approach classically used for works. The program can hardly express the personality of its author, given its technical character¹⁵. The proposal for a Council Directive on the legal protection of computer programs stated that "*the only criterion which should be applied to determine the eligibility for protection is that of originality, that is, that the work has not been copied*"¹⁷. It is here a resolutely objective conception that is adopted. Personalism is excluded. The personality of the author is irrelevant, as long as the software has not been copied, in other words,

¹² Dir. n° 91/250/CEE of May 14, 1991, on the legal protection of computer programs, art. 1§3.

¹⁵ J. LARRIEU, *Droit de l'internet*, ellipses, 2^e éd., 2010, p. 100; A. LUCAS, obs. under Cass. ass. plen. 7 March 1986, Pachot, *RIDA* 07-1986, n° 129, p. 137.

¹⁷ Com (1988) 816 final, art. 1§3

that it is new. Assimilating originality to novelty would likely allow works generated by artificial intelligence to be considered original. It will only be necessary to demonstrate the absence of copying. Obviously, the question cannot be reduced to software because the creations generated by artificial intelligences are more diversified.

7. On the theoretical level, this addition of software to author right has undoubtedly made the subject lose its coherence. This extension nevertheless shows that author right is pragmatic which can lead to the evolution of fundamental notions. The notion of originality could therefore also be adapted to welcome creations generated by artificial intelligence. In addition, if originality is thus understood as the fact of not having copied a pre-existing work, then there is little doubt that artificial intelligence creations could be protected by author right, as long as they are new¹⁹. This argument is even more important since the Court of Justice has sought to unify the notion of originality.

B. – INTERPRETATION OF THE COURT OF JUSTICE OF THE EUROPEAN UNION

8. In the *Infopaq* judgment of July 16, 2009²⁰, the Court of Justice of European Union merely considered that a work must be original, in the sense that it "*is an intellectual creation specific to its author*". As we have seen, this definition, modelled on the European directives and strongly inspired by software, seems to consecrate an objective conception of originality. It would be wrong to object that there is a difference between software and more traditional works of art, since the Court of Justice of the European Union intended, in this judgment,

¹⁹ See also. J. LARRIEU, "Le robot et le droit d'auteur", in *Mélanges en l'honneur d'André Lucas*, Lexis Nexis, 2014, p. 465, spec. p. 472.

²⁰ CJEU, July 16, 2009, *Infopaq International v. Danske Dagblades Forening*, C-5/08, Rec. I-6569. On this question, see in particular V. -L. BENABOU, "L'originalité, un Janus juridique" in *Mélanges André Lucas*, LexisNexis, 2014, p. 17 and following.

to unify the definition of originality²¹. Indeed, in this judgment, the Court of Justice wished to give a transversal interpretation of originality, which must apply to any type of work. Consequently, if European Union law establishes an objective understanding of originality, works created by artificial intelligence could easily be recognized as original, regardless - at least for this criterion - of the role played by humans in the creation process. It seems, in this conception, unnecessary to demonstrate the influence of the person on the creation. The fact that the machine has played an increased role will not fundamentally change the situation.

9. Transition. Despite this evolution, it is not clear that personalism has been completely abandoned. The Court has since had occasion to refine its definition of originality. In its *Painer* judgment of 1st December 2011 the Court of Justice considers that an original work is "*an intellectual creation is an author's own if it reflects the author's personality*"²². That is the case "*if the author was able to express his creative abilities in the production of the work by making free and creative choices*"²³, and thus imprints his "*personal touch to the work created*"²⁴.

§2. – THE REMINISCENCE OF THE SUBJECTIVE CONCEPTION

10. The formula according to which the original work is the one that is marked by the personality of its author seems to be consecrated. Thus understood, the work puts in light the singularity of the individual. To put it simply, the work

²¹ See not. V. -L. BENABOU, "L'originalité, un Janus juridique" in *Mélanges André Lucas*, LexisNexis, 2014, p. 17 - V. -L. BENABOU, Retour sur dix ans de jurisprudence de la Cour de justice de l'Union européenne en matière de propriété littéraire et artistique : les méthodes, *Propr. Intell.* 2012, n° 43, p. 140.

²² CJEU, 1st Dec. 2011, *Eva Maria Painer v/ Standard VerlagsGmbH and others*, Case -C145/10, ECR I12533-, pt. 88.

²³ pt. 89.

²⁴ pt. 92.

is the reflection of the author's preferences, of his universe²⁵. The definition given to originality by the Court of Justice of the European Union also seems to include an element of subjectivity (A). It would nevertheless be premature to deny, as a matter of principle, any originality to works generated by artificial intelligence (B).

A. – THE SUBJECTIVE ASPECTS OF THE COMMUNITY DEFINITION

11. Undeniably, when the Court of Justice refers to the personality of the author of the work, it is difficult to see how a work made by artificial intelligence could be original²⁶. Artificial intelligence does not have a personality, it only ever implements an algorithm. The software executes commands randomly in order to reach a result determined more or less precisely in advance. This was the case with the painting *the next Rembrandt* for which the machine was asked to generate a work in the style of the master²⁷.

12. To verify whether a work is original, it is necessary, according to the Court of Justice, that *"the author [has been] able to express his creative abilities during the making of the work by making free and creative choices"*²⁸. The choices seem to be at the heart of the European conception of originality.

With regard to free choices, these are opposed to constraint. For example, when the choice is dictated by the technical function, it is not free²⁹. It must be

²⁵ J. LARRIEU, "Le robot et le droit d'auteur", in *Mélanges en l'honneur d'André Lucas*, Lexis Nexis, 2014, p. 465, spec. p. 472: the work "must reflect in some way the fantasy, the imagination, the inclinations... of the author".

²⁶ N. BINCTIN, "L'influence de l'intelligence artificielle sur les mécanismes de la propriété intellectuelle", in *Penser le droit de la pensée. Mélanges en l'honneur de Michel Vivant*, Dalloz LexisNexis, 2020, p. 41, spec. p. 51: *"the machine does not create; it implements instructions applied with regard to data that have been provided to it in order to learn. The machine does not understand what it is doing, it has no creative consciousness. Human influence is central to the productive process of artificial intelligence."*

²⁷ Noting that this work *"is fundamentally an imitation"*, see M. Vivant, "Intelligence artificielle et propriété intellectuelle", *CCE* 2018, study 18, n° 10.

²⁸ CJEU, 1st Dec. 2011, *Eva Maria Painer v/ Standard VerlagsGmbH and others*, Case -C145/10, pt. 89.

²⁹ CJEU, June 11, 2020, *Brompton Bicycle Ltd c/ Chedech/Get2Get*, aff. C833/18-, pt. 26, *propr. intell.* July 2020, n° 76, p. 69, obs. BRUGUIERE: *"an object satisfying the condition of originality can benefit from author right protection, even if the realization of the object has been determined by technical considerations, as long as such determination has not prevented the author from reflecting his personality in this object, by manifesting free and creative choices"*.

conceded that the machine has freedom: it has many possible paths; the algorithm will randomly choose one rather than another. The difficulties arise as soon as we think of creativity.

13. Creativity - debates. We can see that creativity is human³⁰. Even if humans tend to project their humanity onto the machine, artificial intelligence does not have a consciousness³¹; it does not reproduce the functioning of the human brain³². Nevertheless, it is necessary to underline the ambivalence of this notion of creativity. It seems to refer, in a sense, to novelty³³. However, in the French personalist tradition, it also seems to refer to the personality of the author, especially if we consider that this creativity must, in the vocabulary of the Court of Justice of European Union, allow the work to reflect the personality of its author.

B. – THE CONSEQUENCES ON THE CREATIONS OF ARTIFICIAL INTELLIGENCE

14. Even considering the personalist approach to the definition of originality, it is delicate to exclude *ipso facto* that a creation of artificial intelligence is original. It is common to distinguish between assisted creations and those generated by artificial intelligence. In both cases, it should be noted that the human being is never totally absent from the process. Upstream of the creation process, he provides the AI with data so that it can produce a result. Let's take the example of Nvidia Canvas, the user will draw the work in broad strokes, then he

³⁰ A. MENDOZA-CAMINADE, "Creation and artificial intelligence: author right protection in the process of legitimization", *RLDI* 2020, p. 31

³¹ An ex-employee of Google was able to affirm in June 2022 that an artificial intelligence developed by the firm had a conscience. In reality, there is only a more advanced artificial intelligence, trained by millions of conversations, which could give the illusion of emotions.

³² Adde N. BINCTIN, "L'influence de l'intelligence artificielle sur les mécanismes de la propriété intellectuelle", in *Penser le droit de la pensée. Mélanges en l'honneur de Michel Vivant*, Dalloz LexisNexis, 2020, p. 41, spec. p. 43.

³³ Le Robert, V° Creation, II: "Action of making, organizing (a thing that did not yet exist)"; Trésor de la langue française, V° Creation: "Act of producing and forming a being or thing that did not previously exist"; A. LALANDE, *Vocabulaire technique et critique de la philosophie*, PUF, 2010, V° Creation: "*the production of any thing, especially if it is new in form, but by means of pre-existing elements*".

will choose the style. The algorithm will then follow the guidelines to generate random data that will render a result consistent with those guidelines. The difficulty usually lies at this point in the creation process, because the execution is automated, and the author no longer has control. However, the work materializes during this stage. It should be noted that downstream, when the artificial intelligence has produced a result, the user will be able to make modifications, in order to have a work more in conformity with his requirements⁴⁰.

It is worth mentioning that in the *Eva-Maria Painer* case of 1^{er} December 2011, the Court of Justice said, with regard to photographs, that creative choices can be made at several stages of the creation process; upstream, at the preparatory stage, during the shooting, or during the edition or the printing of the photograph⁴¹. We can therefore think that the choices made upstream to feed the artificial intelligence or those made downstream to retouch the creation can be sufficient to qualify originality. It is, before all, a question of degrees in the requirement to qualify originality.

15. Some authors consider that artificial intelligence is only a tool, reducible to the brush for a painter⁴² ; the machine only applies instructions, predefined rules; it would finally have no autonomy. Consequently, these arbitrary choices would be made by the user⁴³. We can nevertheless question the

⁴⁰ Adde, A. -S. SKREBERS, "Intelligence artificielle et droit d'auteur", in *L'entreprise et l'intelligence artificielle. Les réponses du droit*, Institut Fédératif de Recherche - UT1, 2022. The author mentions that "it is sufficient that the author had the possibility to express his personality at any stage of the process and that his personality is reflected in the result produced for the criterion of originality to be met. It is therefore necessary to evaluate the degree of participation of the human author throughout the creative process".

⁴¹ CJEU, 1^{er} Dec. 2011, *Eva Maria Painer v/ Standard VerlagsGmbH and others*, Case -C145/10, ECR I12533, pt. 91: "In the preparation phase, the photographer can choose the background, the subject's pose and the lighting. When taking a portrait photograph, he can choose the framing, the angle of view and the atmosphere created. Finally, when selecting the snapshot, the photographer may choose from a variety of developing techniques the one he wishes to adopt or, where appropriate, use computer software".

⁴² N. BINCTIN, "L'influence de l'intelligence artificielle sur les mécanismes de la propriété intellectuelle", in *Penser le droit de la pensée. Mélanges en l'honneur de Michel Vivant*, Dalloz LexisNexis, 2020, p. 41, speculative p. 51 and following; A. -S. SKREBERS, "Intelligence artificielle et droit d'auteur", in *L'entreprise et l'intelligence artificielle. Les réponses du droit*, Institut Fédératif de Recherche - UT1, 2022, which mentions that "the use of artificial intelligence to produce artistic or literary creations differs very little from a classical creative process".

⁴³ N. BINCTIN, art. préc. Spec. p. 58.

relevance of this assertion. If we take the example of Nvidia Canvas, the user roughly draws the work, chooses the style. Then, the artificial intelligence will produce an image that looks like a photograph. Can we say that the user has really shown creativity? The question seems to be philosophical and implies to question the role and the influence of the author on the creation. Nevertheless, it should be noted that the law prohibits taking into account the author's merit in the creation. This requirement often leads the judge to have a flexible approach to originality.

16. Conclusion. In the light of these elements, it seems relevant to consider that the definition of originality has two aspects, taking into account both objective and subjective criteria. This evolution does not mislead the judges of the court of first instance who, at least in France, frequently take care to qualify in what way the work submitted to them is new and, in that, does not take up a previous work, but also, in what way the work bears the imprint of the personality of its author⁴⁴.

The subjective aspect of the definition seems to pose difficulties if we confront it with the creations of artificial intelligence.

17. Adapting the concept? Some voices have been heard to propose an adapted author right, as in the case of the software⁴⁵. This would result in an adjustment of the notion of originality. However, this thesis seems to be condemned by the jurisprudence of the Court of Justice, which intends to make originality an autonomous and unique notion for all works. This proposal is therefore not a salvation since the definition of originality must be the same.

It should also be mentioned that the Court accepts that the EU legislator may create a definition that departs from the general definition, provided that it is

⁴⁴ See e.g. CA Paris, pôle 5-1, Sept. 22, 2020, RG n° 18/10181, *prop. intell.* 2021, n° 78, p. 43, obs. BRUGUIÈRE; CA Bordeaux, 1^{re} ch., June 28, 2022, n° 19/05247, *LEPI* Sept. 2022, p. 2, obs. A. LUCAS - See already CA Paris, 4th ch. 4 Apr. 2008 : JCP E 2008, 2248, note F. GREFFE.

⁴⁵ A BENSAMOUN and J. FARCHY, *Mission Intelligence artificielle*, CSPLA 2020 report, p. 42.

expressly stated. In other words, the EU legislator could create a definition of originality that is specific only to AI works. If we want the notion of originality to be preserved⁴⁶, we would have to create a new right. But then, which right? Indeed, if a new right is to be created, it must be long enough to be economically viable. Failing that, the strategy of circumvention will be at work, and once again the litigants will try to place themselves on the field of author right⁴⁷. In short, we are no further ahead, and it does not seem relevant to provide for a differentiated notion of originality, at the risk of raising some difficulties later.

*

* *

THANK YOU FOR YOUR ATTENTION.

⁴⁶ This seems very late considering the software that led to the deviation of the French conception of originality.

⁴⁷ What regime should be adopted then? If the originality is less, perhaps a lesser right would be required, particularly in terms of duration or prerogatives (one thinks in particular of moral rights). Otherwise, the applicants would rather go for this new right. Conversely, if the protection is too weak (considering the financial stakes), the applicant will lie.