Artificial intelligence and the future of IP rights

A distinct system for creations by AI may be the answer

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Clear and effective regulation of IP rights for AI is greatly needed at the EU level

The effective regulation of IP rights for AI systems and the creations of AI systems is critically important beyond just the need for legal clarity, because it can directly affect the motivation of market participants to innovate. Due to the novelty of non-humans creating new artistic works, a rethink is necessary of how we approach this topic altogether.

Summary of key points:

- the coherent regulation of IP rights for AI systems and the creations of AI systems is greatly needed;
- the most likely solution will be to implement a distinct system of protection for the creations made by AI systems; a system in which the rights holder could be either the creator of the AI system or its user, depending on certain criteria;
- specific attention should be paid to the protection of algorithms, which are not protected currently under the applicable EU legislative framework.

Artificial intelligence has undergone unprecedent development in recent years and will most likely have a defining role in the future of our society. The legal implications generated by the technological evolution in the field of AI are extremely diverse, having important effects both from the perspective of intellectual property rights, personal data, and from an ethical and safety perspective, with particular relevance when artificial intelligence is used in critical sectors.

Although the issue of IP rights related to AI has been on the table for some time now, *neither the EU, nor the Member States at the national level have adopted sufficiently clear legislation to regulate the question of AI and IP rights*. While an EU AI Act Proposal was launched by the European Commission in April 2021, this act is still a long way from being adopted and, beyond this, the AI Act Proposal does not tackle in any way the matter of IP rights.

This lack of a clear regulatory framework leaves many gaps to be dealt with by law professionals, especially in relation to two topics: (**1) how can IP rights for AI systems be protected, and (2) how should the creations of AI systems be protected**.

IP rights for AI systems – protecting your algorithms

The EU AI Act Proposal defines an **artificial intelligence system (AI system)** as: *software that is developed with one or more pre-determined techniques and approaches (among which are machine learning approaches, logic and knowledge base approaches and statistical approaches) which can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with.*

While there are several types of AI technologies, the one that poses the most challenges to their developers or owners is the machine learning approach. Without getting into the technical details, the machine learning approach will generally entail feeding a set of raw data into software which processes the data based on pre-defined algorithms and then generates output data.

As such, in our example, the main components of an AI system based on machine learning are *the software, the algorithms and the input data*. While in most EU jurisdictions, software is protected by copyright which belongs either to the author (programmer) or in specific cases to the employer, **the main challenge comes up when we are talking about the protection of the algorithms**, which are generally a vital part of the AI system.

> In general, the approach towards the protection of algorithms is that such algorithms are not protected by copyright. This approach is based on the basic principle that mere ideas should not be protected by copyright.

As such, the software embedding the algorithm can be protected by copyright, *while, to protect the algorithms, the developers will have to rely upon the protection of the trade secrets under their applicable national law* and to make sure that they are implementing the necessary measures so that such algorithms qualify as trade secrets under the applicable national law.

In relation to the last point, raw data is generally not protected as such, but it can be protected either if such data meets the specific national law conditions for qualifying as a protected work (this could be either a literary, artistic or other type of work), or if such data is part of a database, as in most EU jurisdictions databases are protected by *sui generis* rights.

Under these circumstances, **the main issue for the developers or owners of AI systems will be to find the right way and the necessary resources to protect their algorithms**, given that such algorithms do not benefit from specific protection, save for the trade secret protection, and could be freely used by any interested party. This issue does not seem impossible to overcome at this moment, *but it requires efforts and additional measures from the developers or owners*, as enforcing appropriate measures for protecting trade secret is not always an easy task.

Protecting the creations of AI systems

The idea that the creations generated by AI systems should be part of the public domain and freely used has often been circulated in the public debate. The main arguments in support of this approach are that there are no direct costs associated with generating the work once an AI system is implemented, and that the AI system does not need a motivation to make creations, so the same protection system as for human creators should not be granted.

Such an approach could be detrimental to technological progress, especially because the lack of any kind of protection for creations generated by AI systems would substantially discourage investments in such systems and would not in any way facilitate progress, especially in the creative area. In such a situation, companies would only be interested in investing in systems that could improve the area of business process automation, but the creative side would not be boosted in any way.

A simple example – an AI system that could autonomously create websites. In principle, this type of system already exists, but it works at an experimental level, and the process of writing code is not optimised.

> In a situation where the possible websites created by such a system do not benefit from protection, anyone could copy them to the smallest detail, so potential creators will never have the motivation to invest enough in a system of this kind so that it becomes truly functional and usable on a large scale.

However, at this point we still don't know exactly how copyright should work or might work for creations made by AI systems. The question that arises is whether the protection provided by copyright is the appropriate mechanism in this case. There are those who argue that this would not be the most appropriate choice, because the copyright system is designed to protect human creators, including a number of moral copyrights (e.g. the right to disclose the work or right of withdrawal) which are closely related to the personality of the author. Also, the duration of copyright protection is, at least at first sight, incompatible with creations generated by AI systems (in the EU, in accordance with the Directive 2006/116/EC, as a rule, the rights of an author with respect to a literary or artistic work run for the life of the author and for 70 years after his/her death).

Thus, the question that arises is whether it would not be easier to have a differentiated system of protection, i.e. a category of *sui generis* rights, distinct from copyright, containing specific rules, applicable only in the case of creations generated by AI systems.

The main argument for this is that such a differentiated system of protection, with a possible shorter term of protection of 5-10 years, could interfere less with the current system of copyright protection, thus minimising the impact on human creators. On the other hand, the user of the AI system might be motivated not to disclose the AI system's involvement in creating a certain work, claiming that such a work belongs to a human creator so that it benefits from the copyright protection system.

In terms of the current situation, when determining whether a creation of an AI system could be protected under the currently applicable legislative framework in the EU, we must distinguish, depending on the degree of involvement of the human creator, between AI-generated creations (works that are generated autonomously by AI systems) and AI-assisted creations (works created by a human author with the help of an AI system).

In the case of AI-generated creations, in principle in the European Union, the prevailing interpretation is that these categories of works cannot benefit from protection, because copyright can only protect in principle works which have a human creator. The Court of Justice of the European Union even stated that copyright applies only to original works and that originality must reflect the author's own intellectual creation, so this condition was interpreted as a necessity of the existence of a human creator. This is the situation in most EU jurisdictions, where the law only recognises the authorship of a human creator.

On the other hand, there are some jurisdictions such as Ireland, Great Britain and New Zealand that recognise authorship in the person who created the software capable of generating that creation. However, there is currently no jurisdiction, to our knowledge, that recognises the authorship of an AI system.

> Furthermore, in the case of AI-assisted creations, the current legislation could allow the recognition of the authorship of the human creator who used the AI system, provided that the degree of human intervention is important enough to constitute a creative activity *per se*.

The situation is rather similar in respect of inventions created by AI systems, where the European Patent Office, based on a literal interpretation of the European Patent Convention, recognises the capacity of an inventor solely to natural persons.

In conclusion, in respect of IP rights for AI systems, **developers or owners should pay specific attention to protecting their algorithms**, in order to prevent their illegitimate use, while in relation to protecting the creations of AI systems, regardless of whether we are talking about literary and artistic works or about inventions, **a new legislative framework ensuring consistent protection at the EU level would be highly desirable**. The emerging solution will most likely be to implement a distinct system of protection for the creations made by AI systems, a system in which the rights holder could be *either the creator of the AI system or its user*, depending on certain criteria.

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