

### 3. ARTIFICIAL INTELLIGENCE AND A NEW CORNERSTONE FOR AUTHORSHIP

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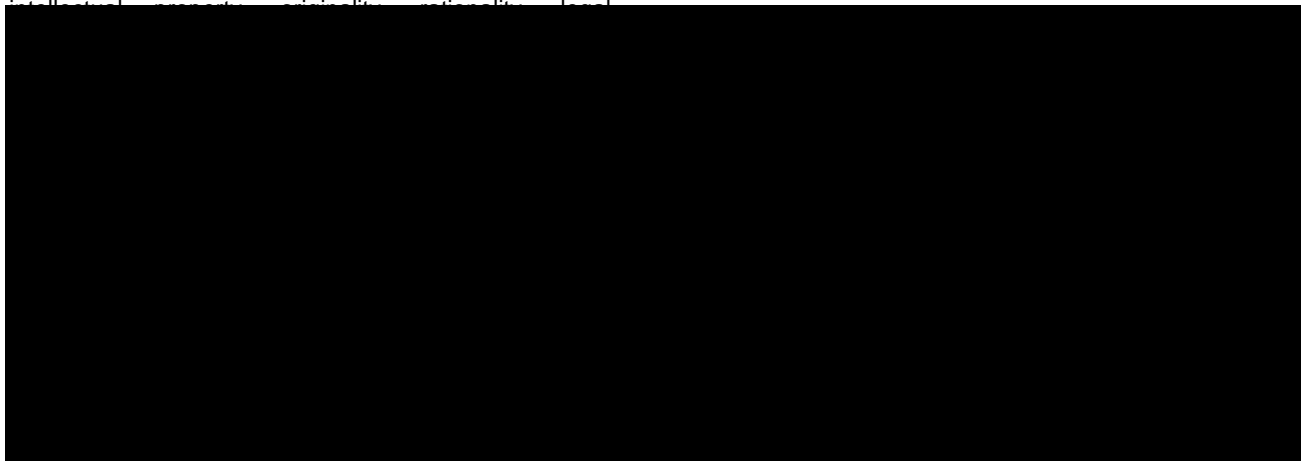
'What is the heart but a spring; and the nerves  
but so many strings; and the joints, but so many wheels

- Thomas Hobbes, 1651

#### ABSTRACT

The 20th century's digital technological revolution has transformed our world in ways once thought almost impossible. What was once deemed mere science fiction, has now become reality. Of these developments, one of the most controversial is that of the growing dependence on robots and Artificial Intelligence (AI). AI development has led to a scenario in which non-human entities generate scientific, artistic, and industrial outputs that meet the requirements to be protected as intellectual property (IP). However, it also faces various legal and practical obstacles hindering such protection. This paper aims to address the question of the role of art created by AI; and to offer certain theoretical solutions that, in the future, could resolve the legal problem that represents the creation of art by an AI entity.

Keywords: artificial intelligence, copyright, citizen, intellectual property, originality, artificiality, legal



Parliament, for example, recently proposed a motion with recommendations for the civil regulation of the aptly named 'electronic citizens'<sup>5</sup>. The proposal is complex, requiring the consonance of other branches of the law. This is a result of the impact of AI on discrete branches of law such as the law of persons in particular legal personality, legal capacity and civil liability, among others. Its proposal presents an opportunity to define areas in IP law that have yet to be regulated<sup>6</sup>.

The purpose of this paper is to provide clarity on the 'AI-generated work' dilemma. It will start with some basic concepts of artificial intelligence, for a better understanding of the concept of 'authoring'. The

the existence of errors in the

AI), it must 'actually' think (have a strong AI). In a weak AI, authorship belongs to the machine's programmer, rather than the machine itself, as the creation of work is simply a realized expression

weak AI,

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- self-learning ability, from experience and by interaction (optional criterion);
- that it has at least a minor physical support;

legal regulation, but within the current legal parameters and given the separation between moral and pecuniary rights, it is a possible solution.

The primary arguments against granting legal personality to artificial intelligence systems are all anthropocentric based. These arguments revolve around the idea of robots not being human, lacking a soul, or not showing feelings, interests, desires, intentionality, etc. They are all derived from social constructs created by humans, and therefore, are modifiable. It is not the purpose of this paper to exhaust the doctrinal positions regarding the granting of legal personality to robots.

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rights to an agent that is not capable of exercising or defending them? Because by making authorship attributable to 'someone,' the work is prevented from falling into the public domain. Should rights be granted to these entities, three questions follow:

1. Once the agent is granted rights, is it going to enforce them?
2. Is it necessary to enforce authorship rights in order to regard such works as worthy?
3. What does this have to do with the ownership of an AI generated work?

In the civil system, moral rights contain two kinds of prerogatives: positive, which allows the owner to use the rights as it sees fit; and negative or *ius prohibendi*, which allows the author to keep third parties from infringement of exclusive rights.

The enforcement of moral rights more often than not is displayed in its negative form because of the ubiquitous character of intangible assets. If no infringement is perpetrated, then there is no need for the enforcement of the moral rights. Does this mean that moral rights depend on their exercise to exist? Not at all. The separation of the right's existence and its exercise is supported by scholar Georg Jellinek, and his theory on AI authorship<sup>37</sup>. This theory argues that the ownership and exercise of these rights should rest on different persons. Such a premise is the clearest example that moral rights do not depend on their exercise to exist. They arise once the work is created and can remain dormant without being used even once and are there whenever they are needed, outliving both the author and the work itself.

Agents should not have to exercise moral rights only because they exist. But even if they do, there is a possibility

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animal, lacking legal standing<sup>42</sup> However, animals cannot be compared to rational agents, because the latter's rationality comprises some of the traits scientists have deemed to be essential in the human mental process that distinguishes it from other creatures.

Hristov's solution is based on the premise of inevitably granting authorship to human.



work, the better it reflects the personality of the author,  
and as a result, the attribute of individuality is more

elements that cannot be added, because the agent lacks the required ability to do so.

4. The agent's percept sequence to date. This can be translated as the capability of the agent to change its previous knowledge and consequently take necessary

and despite all the flaws this solution poses, it takes a step towards the regulation of such matters.<sup>59</sup>

However, the current state of laws is still not sufficiently complete to protect AI creations. A common effort must be made to create specialized laws on the matter. Situations like the attribution of legal personhood to rational agents, subsequent granting of rights relating to authorship and economic exploitation must be regulated with necessary precision. Until then, the legal and economic vacuum surrounding such creations will continue to exist, restraining the development of the AI industry as a result of a lack of economic motivation.

## 7. CRITICAL ASPECTS DERIVED FROM THE AUTHORSHIP BY AI

Attributing authorship to a rational agent involves addressing profound philosophical questions that would shake the foundations of longstanding legal systems. Doing so implies a deep reform of various legal situations adjacent to the issue of authorship of a work. Some of those situations include the current approach to the legal regulation of the subject in some legal systems: economic exploitation and moral rights exercise; duration of exclusive rights for rational agents; and a considerable amount of ethical issues and fundamental rights related to the acknowledgment of authorship to AI systems. The next section of the paper will address some of those issues and their immediate legal consequences.

a) We will begin by tackling the 'derivative work' school of thought which has been developed within the copyright system. It aims to solve the legal regulation of authorship in rational agents by using the current state of law. First, there is no chance for an AI generated work to be considered, a priori, a derivative work, because derivative works are those derived from preexisting works, not 'made' by a preexisting work. It would be oxymoronic to state that AI generated work is derivative and that AI per se is pre-

existing work because by doing so, we would be unfairly denying the AI authorship and granting it to the programmer. This implies that the AI cannot be the author and the work itself at the same time.

When making a derivative work of art, the primal work remains unaltered while a new work is created. Therefore, derivativeness in works of art revolve around origin, not originality. A derivative work can be original or not, though never originate. In this sense, originality in an AI system artwork may be questioned because of its content, but never because it was created by an AI, which in turn was created by a human.

On the other hand, the copyright system uses a double standard for originality. This adds another level of complexity, because if AI generated works were to be taken as derivatives, then an even higher, yet extremely subjective, standard of originality would be applied. It has already been explained, how the concept of originality should be applied differently to AI systems, so no extra standards should be added in order to grant authorship or conferring copyright protection, at least not if the purpose is to 'save' AI creations from the public domain.

b) As for the duration of economic rights, Berne's standard should apply. The division of

<sup>59</sup> U.K. Copyright, Designs, and Patents Act 1988.

<sup>60</sup> Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, as revised at Paris on July 24, 1971 and amended in 1979 S. Treaty Doc. 9927 (1986).

As to moral rights, given their *intuitio personae* character and the fact that they are virtually perpetual, only their exercise can be transferred to third parties. This works within the scenario where a rational agent lacking the capabilities to

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7. Authorship can only be granted when the AI system creates a work of art containing features intended but not controlled by the programmer.
  8. Since originality in its formal concept is unachievable by rational agents because they lack intention, we propose to substitute intention with rationality, a feature that machines not only possess, but that is their modus operandi.
  9. AI generated works of art should not be considered a derivative work, for that would be contradictory regarding the recognition of authorship towards AI.
  10. An analogy as to the duration of pecuniary rights for legal entities can be applied when it comes to rational agents that generated rights which are held by third parties.
  11. Ethical aspects must be carefully taken into consideration when contemplating to grant legal personhood to rational agents.

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