LOCKEAN LABOR THEORY AND ARTIFICIAL INTELLIGENCE: CAN TRADITIONAL JUSTIFICATIONS SUSTAIN COPYRIGHT FOR AI-GENERATED WORKS?

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1. Introduction

For a long time, the connection between work and ownership of property has been a central theme in Western political and legal philosophy since the 1600s.[1] In his landmark work, Two Treatises of Government (1690), John Locke conveyed the idea that as soon as a person mixes their labor with things from nature, ownership belongs to that person.[2] In Locke's context, the process of working changes the thing that was previously common into private property, and by that, implies a certain right to exclude other people. Just to clarify, while Locke's model was tied up with land, farming, and other material resources, the impact of his concept has gone a long way that it could be seen in the notion of property in the nonphysical world.[3]

At the time of the eighteenth and nineteenth centuries, the labor theory of John Locke was not only directing but also beginning the issues of works of an intellectual nature. Although language, ideas, and cultural symbols are common things, they are said to carry the hallmark of personal labor when an author exerts intellectual labor to organize and express them in a distinct manner. Consequently, copyright came to be considered a moral acknowledgment of the human ingenuity, time, and skill involved in the creation of a work rather than simply a legal fiction.[4] The courts in both England and the United States often followed this Lockean view by giving copyright the status of a right as much as a property privilege. In this respect,

[1] Simonds, R. T. (1997). John Locke's Use of Classical Legal Theory. *International Journal of The Classical Tradition*, *3*(4), 424–432. https://doi.org/10.1007/S12138-997-0009-3
[2] Di Biase, G. (2024). *Lavoro e appropriazione in John Locke* (pp. 501–507). Firenze University Press. https://doi.org/10.36253/979-12-215-0319-7.58
[3] Ashcraft, R. (1987). *Locke's Two treatises of government*. https://www.taylorfrancis.com/books/mono/10.4324/9780203707807/locke-two-treatises-government-richard-ashcraft
[4] Chatterjee, M. (2020). Lockean Copyright versus Lockean Property. *Journal of Legal Analysis*, *12*, 136–182. https://doi.org/10.1093/JLA/LAAA002

the concept of labor as one of the prime sources of copyright law goes back to the time of John Locke.[5]

Today's AI situation challenges the long history that put human inventive work at the center of the story. The main difference between the previous tools and AI is that the latter has a certain level of independence. Just to name a few, we had the printing press, typewriter, and computer word processors, all of which depended on human input to function; however, currently, modern generative AI systems have an autonomy that makes the treatment of the Lockean framework more complex.[6] The complicated machine learning models that have been trained on huge datasets are quite capable of coming up with poems, music, paintings, software, and even legal drafts without creative human labor.[7] A very simple command like "write a sonnet mimicking Shakespeare" or "paint an impressionist picture of a riverside at dusk" might be enough to get works that are beautiful and sometimes indistinguishable from those created by humans to be produced.

This upheaval in technology raises very important and timely normative and legal questions. For example, if copyright is justified by the creative work of the author, what happens to that justification when the "author" is an algorithm, not a human?[8] Can the simple act of typing a prompt or selecting an output be compared with the intellectual and creative work that John Locke must have had in mind? Or does such a minor contribution merely mock the concept of work, which is the basis of the moral claim to property? These issues are not only of a speculative nature. They are closely linked with the artists, programmers, corporations, and endusers' ability to own AI generated works and sell them under the current copyright laws.[9]

Over and above that, the problem of AI creative output challenges us to think about whether the theory of labor by John Locke, which was developed in a preindustrial agrarian society, can sufficiently explain the 21stcentury technological world. Some commentators claim that the core of Locke's theory human effort resulting in rights cannot be extended so as to include

[5] Zemer, L. (2006). The Making of a New Copyright Lockean. *Harvard Journal of Law and Public Policy*, *29*(3), 891. https://www.questia.com/library/journal/1G1-147109710/the-making-of-a-new-copyright-lockean
[6] Nikrang, A., Breckner, K., Neumayr, T., Hirschmann, F., & Augstein, M. (2024). *AI Creativity in the Light of Autonomy* (pp. 7–19). Informa. https://doi.org/10.4324/9781003453901-3
[7] Scott, I. (2024). Rising to Meet the Challenge of Generative AI. *Journal of Legal Studies Education*. https://doi.org/10.1111/jlse.12141
[8] Watiktinnakorn, C., Seesai, J., & Kerdvibulvech, C. (2023). Blurring the lines: how AI is redefining artistic ownership and copyright. *Discover Artificial Intelligence*, *3*. https://doi.org/10.1007/s44163-023-00088-y
[9] Attribution of Copyright to Artificial Intelligence Generated Works. (2022). https://doi.org/10.53846/goediss-7612

machine invention without losing the main idea of the theory.[10] Others, however, maintain that Locke's teachings can be interpreted differently; the engineers in the designing process of the models, the curators who gather the datasets, and the users who make up the prompts all do some kind of work that is reflected in the final product.[11]

As such, this article intends to tackle these questions with the help of the critique of Locke's theory in view of AI based creativity. Starting with the labor theory's historical dominance over copyright, the paper unfolds the difficulties of jurisprudence with regard to machineauthored works, and it evaluates whether reasoning based on Locke should be rescued or replaced by new principles. Moreover, it thus locates the issue at the crossroads of political philosophy, intellectual property law, and technological advancements, and acknowledges the need to revise the concept of copyright in a time when the demarcation line between human and machine authorship is getting ever thinner.

2. Locke's Labor Theory and its Extension to Copyright

John Locke's labor theory of property, which he elaborately described in his Second Treatise of Government (1690), continues to be a major influential concept to date, which gives one a moral ground to own private property. In the beginning, Locke stated that nature in its entirety, i.e., land, water, fruits, and other resources, should belong to human beings as a whole without being partitioned into separate owners. However, individuals needed a method to grab some resources for their own usage if society was to run smoothly. He claimed that through putting labor into the resource, a moral basis was to be formed for taking it as one's own.[12]

One example can be a person that by farming on uninhabited land, cutting down a tree, or collecting fruits, performs the work and accordingly with the right hand takes possession of the unwound work. Nevertheless, Locke tagged these appropriations with certain conditions. Firstly, the "enough and as good" clause stipulated that appropriation should not exclude others from accessing necessary resources. Secondly, the "no spoilage" clause said that one was not allowed to gather or use the resources in a wasteful way more than the rate of capacity of use

[10] Zhang, R., & Zhao, C. (2020). The Opportunity and Challenge of the Development of Artificial Intelligence to Human Labor Liberation. 4(8). https://doi.org/10.26689/JCER.V4I8.1436
[11] Hemmer, M. C. (2024). Artificial Intelligence as a Creative Scientist (pp. 206–217). Informa. https://doi.org/10.4324/9781003453901-19
[12] Di Biase, G. (2024). *Lavoro e appropriazione in John Locke* (pp. 501–507). Firenze University Press. https://doi.org/10.36253/979-12-215-0319-7.58

only.[13] Fairness and the welfare of the community were the underlying aspects these conditions tried to emphasize in individual rights.[14]

Despite the fact that the concept of Locke was based on the tangible side of things and physical property, the later day jurists and philosophers found it quite flexible to apply in the matter of intellectual deeds. In the 18th and 19th centuries, as the viewpoints regarding the nature of authorship and ownership gained popularity, the theory of Locke provided the authors with a moral diction already at hand. The idea was that the immaterial one was treated similarly to the material one: just as the farmer enables the barren field to produce by his hard work, so the author or artist does the same by using his mind and creativity on one or more of the following: language, signs, vogue ideas, and culture to turn them into original works.[15]

The change from physical to nonphysical property wasn't free from philosophical disagreements. Some philosophers pointed out that intellectual works, unlike land or food, are nonrivalrous; the use of an idea by one person doesn't mean that another one cannot use it. Despite all this, the comparison had some convincing effect. The author's creativity was considered the same as a form of worker's rights, and copyright was the institutional way to reward the worker.[16]

In shaping the doctrine of copyright, the courts and legislatures of England and the United States frequently, if not always, referred to Locke's justification, sometimes in a direct way and sometimes indirectly. The first English copyright laws, such as the Statute of Anne (1710), based their protection on moral grounds, besides encouraging learning, which was the practical motive, on the premise that authors deserved the product of their Intellectual works.[17] Nineteenthcentury American judges, moreover, might have in some instances characterized copyright as "the outcome of mental labor," thus aligning the concept with Locke's theory of labor as a source of rights.[18] Copyright may be formally established in the Constitution or laws,

[13] Chumbita, J. S. (2019). Límites y licencias a la apropiación privada en el estado de naturaleza según John Locke. *Isegoria*, *60*, 303–324. https://doi.org/10.3989/ISEGORIA.2019.060.17
[14] Kogelmann, B., & Ogden, B. (2018). Enough and as Good: a Formal Model of Lockean First Appropriation. *American Journal of Political Science*, *62*(3), 682–694. https://doi.org/10.1111/AJPS.12369
[15] Quintana Paz, M. Á. (2021). *Es éticamente aceptable la propiedad intelectual de los derechos de autor*. *1*, 91–130. https://doi.org/10.52195/PM.V5I1.317
[16] Stern, S. (2012). From Author's Right to Property Right†. *University of Toronto Law Journal*, *62*(1), 29–91. https://doi.org/10.1353/TLJ.2012.0004
[17] Stern, S. (2011). From Author's Right to Property Right. *Social Science Research Network*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1841785
[18] Zemer, L. (2006). The Making of a New Copyright Lockean. *Harvard Journal of Law and Public Policy*, *29*(3), 891. https://www.questia.com/library/journal/1G1-147109710/the-making-of-a-new-copyright-lockean

but the moral aspect of Locke's theory flowed through the courts and helped to affix authors' rights firmly into the cultural memory of the populace.

The use of Lockean ideas also had the advantage of appealing to the natural rights theory of moral justification for copyright, which, while complementing the utilitarian and economic rationales, sometimes even put forward rival claims in this arguable case perspective.[19] The utilitarian viewpoint, which is predominant in the jurisprudence of the United States, characterizes copyright as a means of motivating creators to produce more works benefitting society.[20] However, it was through the lens of Locke's labor theory that copyright was placed within ethical frameworks: creators had rights not only because it was socially advantageous but also because justice required recognition of their sacrifice.[21] The latter, in turn, contributed to the strengthening of the author's idea as an individual and a dignified practice instead of a simple economic deal.

By the 19th century, the worker/creator connection was so well established that the Lockean labor principle was unequivocally applied to the field of intellectual property. Just as the farmer, so the author was seen as a person who, because he was thorough and hardworking, changed the common resources into something that was solely his. With this move, copyright law gained its metaphysical dimension that made it, beyond being a mere state mechanism of control, a legal acknowledgment of those rights that inherent in people as a result of their work.[22]

3. The Challenge of AI Generated Works

Generative AI has profoundly disrupted the traditional copyright paradigm. For a long time, technological inventions, from the quill to the printing press, from typewriters to digital editing software, were seen as just another tool for human creativity. They extended the range of what authors, artists, and musicians could do, but they did not change the main role of human labor.

[19] Quintana Paz, M. Á. (2021). *Es éticamente aceptable la propiedad intelectual de los derechos de autor*. *1*, 91–130. https://doi.org/10.52195/PM.V5I1.317
[20] Chatterjee, M. (2020). Lockean Copyright versus Lockean Property. *Journal of Legal Analysis*, *12*, 136–182. https://doi.org/10.1093/JLA/LAAA002
[21] Zemer, L. (2006). The Making of a New Copyright Lockean. *Harvard Journal of Law and Public Policy*, *29*(3), 891. https://www.questia.com/library/journal/1G1-147109710/the-making-of-a-new-copyright-lockean
[22] Quintana Paz, M. Á. (2021). *Es éticamente aceptable la propiedad intelectual de los derechos de autor*. *1*, 91–130. https://doi.org/10.52195/PM.V5I1.317

Even in the digital era, when software could automate some operations, the human user was still the main artist of expression, adjusting inputs and making decisions over outputs.[23]

Generative AI is a drastic change from the past. Presentday tools like GPTbased text generators, diffusionbased image models, and music composition networks can create complex, originallike products in almost no time with very little human assistance.[24] he user can give a brief instruction like "compose a Shakespearean sonnet on love,""generate an image of a medieval castle at dawn," or "produce a jazz melody in the style of Miles Davis," and the AI will complete this task in a couple of seconds. At least on the surface, the creative result of AI may be indistinguishable from that of trained human writers or artists.[25] Such a feature brings into question the Lockean argument for copyright. Locke's concept is based on the notion that ownership comes from work: one acquires the right by combining individual effort with common resources. However, the case of AI generated works hampers finding the "laborer" to name.

- The user's labor is next to nothing. Writing a brief prompt or simply hitting the "generate" button does not require much intellectual or physical effort. The argument that to form the necessary prompts, one needs skill does not change the fact that the degree of the labor is vastly disproportionate to the complexity of the output. According to Locke's theory: this minimal human interference hardly qualifies as the kind of ritual labor that turns resources into a properly owned product.[26]

- The employees and programmers who build AI machines surely put in lots of work to come up with structures, algorithms, and a training process. Likewise, the preparation of the dataset contributors involves mass collection, labeling, and organizing of the data on which the model learns. Nevertheless, their labor is aimed at building the system itself, not at producing any specific output. According to Locke's theory, rights are given to the person who directly does the labor on the resource, not to the ones who

[23] Silva Díaz, J. S. (2024). Pondering the Impact of Generative ai on Copyright Validity. *Dos Mil Tres Mil*. https://doi.org/10.35707/dostresmil/26497
[24] Yehia, E. (2024). *Developments on Generative AI*. 139–160. https://doi.org/10.1201/9781003501152-9
[25] Minni, G., Nagulmeera, S., Lakshmi, B., & Shaik, N. S. (2024). Generative AI: Exploring the Applications of Generative Models in Creative Industries. *International Journal of Emerging Research in Engineering, Science, and Management*, *3*(3). https://doi.org/10.58482/ijeresm.v3i3.5
[26] Merges, R. P. (2007). Locke for the Masses: Property Rights and the Products of Collective Creativity. *Hofstra Law Review*, *36*(4), 1179. https://scholarlycommons.law.hofstra.edu/cgi/viewcontent.cgi?article=2324&context=hlr

have done the work in the background. To give engineers the credit that they are the owners of every output produced by their system would take Locke's argument so far as to be unrecognizable and as to create a monopoly that is impossible to regulate.[27]

- It is impossible to think of the AI system as a "subject" like in the Lockean theory.[28] That is, the AI system, even if it is very complicated, does not possess personhood like moral agent individuals, whose labor is a reflection of their personhood and whose rights, by virtue of their natural condition as human beings, are Locke's theory.[29] Moreover, the machine as the "laborer" deserving of property rights is not only a distortion of Locke's doctrine but is also fundamentally at odds with the anthropocentric assumptions that undergird modern law.[30]

The mixture leads to what can be called a Lockean vacuum. The human work of art that copyright law has always recognized as the essential moral source of ownership rights is nonexistent, insignificant, or very far away when AI is creating a new work. As a consequence, there is a mismatch between the theory of John Locke and the technological one; those who create AI results users, engineers, and the AI itself are the very ones who do not comply with the conditions of the Lockean theory of entitlement.[31]

The vacuum is not only theoretical but also has deep jurisprudential implications. Copyright systems based on the premise of human authorship have difficulties with works in which no significant human labor can be detected. The United States Copyright Office has on several occasions refused registration for works "authored by AI," whereby the condition of human authorship is insisted on as necessary for copyright. While the UK and India have adopted the concept of the computer as the author of the work and spoken about the one who "makes the arrangements necessary for the creation" as the author in cases of computergenerated works. [32]

[27] Slavova, V., & Dimitrova, D. (2023). Ethical and Legal Problems Related to Subjectivity and Artificial Intelligence. *Filosofiâ*, *32*(2), 186–202. https://doi.org/10.53656/phil2023-02-05
[28] Shen, J. (2022). *Can an Artificial Intelligence System Be Taken as a Legal Subject* (pp. 12–25). https://doi.org/10.1007/978-3-031-23515-3_2
[29] Slavova, V., & Dimitrova, D. (2023). Ethical and Legal Problems Related to Subjectivity and Artificial Intelligence. *Filosofiâ*, *32*(2), 186–202. https://doi.org/10.53656/phil2023-02-05
[30] Viana Cleves, M. J. (2023). *The Full Rights Dilemma for A.I. Systems of Debatable Personhood*. https://doi.org/10.48550/arxiv.2303.17509
[31] Dornis, T. W., & Dornis, T. W. (2019). Artificial Creativity: Emergent Works and the Void in Current Copyright Doctrine. *Social Science Research Network*. https://doi.org/10.2139/SSRN.3451480
[32] Ibid.

This is a legislative step that represents just one way out of the Lockean vacuum, by not abandoning humans entirely from the ownership but rather giving the ownership to those who are connected role wise to the creative act, though not directly. Still, such a step can turn the attribution of authorship into a non natural consequence of Lockean theory, which instead depends solely on the convenience of the policy. Therefore, generative AI unravels the dependability of Locke's labor theory when demonstrating the actuality of 21stcentury creativity. The concept of "mixing," which was the core of property rights according to John Locke, becomes attempted, distributed, and sometimes missing completely as the creators of AI works are not the typical farmers and authors of literary work. So, A.I. in this way doesn't just make copyright more difficult; it challenges the philosophical ground on which it has been based for so long.

4. Extending Locke: Indirect and Distributed Labor in AI Outputs

4.1 Theoretical Expansion of Labor

In the classical Lockean property theory, the foundation of the ownership concept lies in the idea that people get property rights by combining their work with resources found in nature. Just by the act of work, the object that was previously common turns into someone's private property, as the work shows human will, competence, and effort. This system assumes a relatively close relationship between the worker and the claimed item. However, generative AI disintegrates this model as it introduces a network of human contributions that are indirect, cumulative, and temporally dispersed.[33] The process that leads to AI outputs is not an individual job but rather a sequence of steps that are overlapped. Data curators and annotators at the ground stage spend their time and apply their skills to compiling, cleaning, and structuring huge datasets. This work requires the use of keen judgment in deciding what can be considered high quality data, how to achieve balance in the representation, and determining which materials should be removed for reasons that are ethical or legal. In fact, this is quite similar to Locke's metaphor of "labor mixing" with the natural environment, except that the "raw resource" is the rather complex digital environment of unstructured information.[34]

[33] Tavani, H.T. Locke, Intellectual Property Rights, and the Information Commons. *Ethics Inf Technol* **7**, 87–97 (2005). https://doi.org/10.1007/s10676-005-4584-1
[34] Simonds, R.T. John Locke's use of classical legal theory. *Int class trad* **3**, 424–432 (1997). https://doi.org/10.1007/s12138-997-0009-3

Technocrats, engineers, computer scientists, and designers at the next step work on the architectures, algorithms, and optimization that enable generative capacities. The process includes, among others, years of intellectual efforts, trials, and perfection. These people do not create any specific AI output, yet their work is the cause of the system's smooth operation, which eventually leads to output.[35] Though it is not direct, the labor of these people is the very thing that makes the system work. Locke did not specifically acknowledge these types of indirect contributions, but his structure can be arguably extended to recognize that those workers who labor in the creation of the enabling conditions may be the ones who, albeit indirectly, extend to the outputs derived from them.

At the use level, the last element in the chain, the end user, is the one who physically interacts with the system. He or she can provide what you would call prompt, change inputs, filter results, and choose outputs. The exertion required may be minimal compared to traditional creative labor, but this does not mean it is only a mechanical action. By framing the prompt and choosing between multiple outputs, the user performs a form of curatorial labor that guides the AI's generative process toward a specific creative outcome.

Through a wide lens of understanding the works of John Locke, one might see the output of AI as not a product of machine autonomy but as the most visible point of human intervention behind different personas, that is, roles. Each print, therefore, features strands of human labor from curators, engineers, and users; thus, it is less a feat of "ex nihilo" and more the final stage of human intervention in layers. From this standpoint, attributing works by AI to humans might still be coherent with Locke's account on property rights.

However, in this sense, the extension of Locke is not without problems of its kind. His theory is based on the concept of an identifiable and direct act of labor on a particular resource. With AI, the link between an individual's input and a specific output is weakened to the point of being diffuse and often invisible. The data curator, for instance, could not possibly be said to have worked on a single poem written years later by a model trained on millions of texts. The engineer's labor is so essential yet so far away from the particular output that to take the role of the author and to say it would be to break Locke's principle of mixing labor with a resource.

[35] Fadavi, A. and La'l Alizadeh, M. (2024). Ownership of Artificial Intelligence-Generated Works: An Overview of the Emerging Intellectual Property Challenges in the Technology Era. *The Journal of Islamic Law Research*, *25*(4), 949-976. doi: 10.30497/law.2024.245828.3492

The dispute over the ownership of AI generated works reveals an underlying issue the framework of John Locke was designed in a situation where work and product could be directly connected, while the creativity of AI is in a society where contributions are more decentralized and spread over time and people. It seems that to apply Locke to such instances, one would have to either drastically rethink his concepts or concede that the theory of labor by Locke is not enough to solve the problem of the rights of AI generated works.

4.2 Western Debates and Case Illustrations

In the case of Getty Images v. Stability AI[36], Getty claims that millions of their copyrighted photos were taken without permission to train Stability AI's model. From the perspective of John Locke, the argument of Getty is based on the fact that photographers and curators have put their labor into both capturing and organizing images, and that this labor has been taken by an AI system without any significant new human contribution at the training stage. The conflict here turns photographer's years of work, the indirect labor, into the products that Getty and its employees have not only created but also used without permission. Although the rationale for the grounding of exclusive rights in the direct way of labor is now weak, it still identifies labor as the backbone of the dispute.[37]

Also, the courts were not convinced by Stephen Thaler's DABUS applications, where Thaler asserted that his AI system should be recognized as the author and inventor of creative and inventive outputs, and, therefore, the latter was the right one. Courts in different jurisdictions ruled against this claim. Viewing it from a Lockean standpoint, the courts can see why they would say no because inhuman agents are not performing tasks in the same way as human beings: they are not full of will, effort, and self-directed intentionality. The courts, in fact, have done the opposite: they have very strongly stated that human labor (of programmers, system trainers, and end-users) is the only ground for authorship. In other words, they have confirmed the Lockean reference point of labor as the one that, even if indirectly, does not allow machines to become autonomous rights holders.

Such arguments shed light on the potential as well as the boundaries of applying Locke's theories to the creative abilities of AI. The combined work of dataset creators, engineers, and

[36] Getty Images (US) Inc & Ors. v. Stability AI Ltd. [2025] EWHC 38 (Ch.).
[37] *Training Is Everything: Artificial Intelligence, Copyright, and Fair Training*. (2023). https://doi.org/10.48550/arxiv.2305.03720

users can be interpreted as a co creation of the outputs, which, in turn, underwrites the core principle of Locke that the labor of one justifies property rights. However, the challenge of assigning the appropriate work to give credit to a certain AI output unveils the vulnerability of Locke's theory in the context of today's technological ecosystems.

4.3 Indian Illustration: AIGenerated Art in the Indian Context

The issue of AIgenerated works came up sharply in India when Raghav Artificial Intelligence Painting, an AIbased art exhibition, was in the center of media frenzy. The works, which were promoted under the title "India's first AI artist," were created by using generative models that were trained on existing artistic styles and datasets. The project was human curated and humandirected; nonetheless, the outputs were ascribed to "Raghav AI," which consequently led to the questions of authorship and originality in Indian copyright law.

If we were to look at it from the perspective of John Locke, the case would be quite informative. No matter how smart the AI is, it is still a machine, and therefore it cannot be said that the AI has mixed its labor with a resource. It lacks the conscious will, intentionality, and exertion that Locke views as necessary for the acquisition of property rights. The labor, on the other hand, was divided among the humans:

- Dataset Creators and Curators—the people who chose and structured data inputs that influenced the stylistic 'training' of the AI system. Their curatorial work enabled the generative process.

- Engineers and Developers—the programmers who came up with, improved, and took care of the algorithms that allowed the AI to create. Their work is the result of years of expertise, technical trials, and research, although it is only indirectly seen in every output.

- Curators and Promoters of the Exhibition—the human agents who made the decisions about the prompts, chose particular outputs, and curated them for exhibition. Their work was not in creating the brushstrokes but in managing and unveiling the final works to the public.

- So, AI art, which has been the center of many discussions, is nothing more than the result of human labor that has been spread out and worked indirectly. Through the lens

> of Locke, it is implied that, if property rights are acknowledged, they would not belong to the AI but to those human agents whose collective labor made the works to be created and exhibited.

The dispute also brought to light a legal point, Indian copyright law, under Section 2(d) of the Copyright Act, defines the "person who causes the work to be created" as the author in the case of computer generated works. This clause is in line with a Lockean extension as it connects the ownership not to the machine but to the human who gave the command or the direction i.e. the person whose (direct or indirect) labor was the most responsible for the output.

5. Lockean Limits and Emerging Jurisprudential Dilemmas

Locke's labor theory has been the center of the debate though it has been influential throughout history, it starts to show cracks when confronted with AI generated creativity. Various judicial and legislative authorities have tried to fill this conceptual void differently. In the US, one of the steps taken is the consistent insistence by the Copyright Office that authorship is still a human attribute. The court decided authorship may only lie in humans where there is no human creative input in the production of works. The conclusion of this argument basically indicates that the one who brought the AI system into question is not a person subject to Locke, but on the contrary, by reason of the technology, human agency becomes the only link to labor.[38]

The situation in the United Kingdom and India is slightly different from the US. The pertinent legislation in both the UK and India recognizes the person who makes the arrangements for the production of a "computer generated work" as the author of the work. As a legal concept, this might seem to be an analogue to the idea of Locke's clandestine, minutely humanized labor as the one that, even though apparently insignificant, accomplishes the task of reattaching the production process to the human realm. However, the philosophical basis of this concept in law is much shakier. While the very act of inputting a prompt or modifying software certainly is a far cry from the concept of one's mixing the products of the commons with one's toil as per Locke, the law, nevertheless, employs a mechanism that comfortably accommodates Lockean logic by extending it to the prevention of ownership vacuums.

Such a difference indicates a much more profound jurisprudential question: Should copyright

[38] Dornis, T. W., & Dornis, T. W. (2019). Artificial Creativity: Emergent Works and the Void in Current Copyright Doctrine. *Social Science Research Network*. https://doi.org/10.2139/SSRN.3451480

remain based on Locke's principle of labor as a dependence on AI coherence when AI challenges it? One way of solving this issue is to turn to the utilitarian side of the argument and claim that protection should not be given because of labor, but the only rationale for this would be that it is necessary to incentivize further innovation and investment in AI. Another option is to see Locke's theory transformed to become a collective account with AI outputs regarded as the results of distributed human labor among programmers, data curators, and users. However, these transformations have the problem of extending the theory too much or even making the concept of labor become less significant.

In this way, the legal "scenery" of different laws today still shows some elements of stability, and at the same time, it also reveals a degree of unpredictability. Although courts seem to be favoring human authorship as a guiding principle, the whole idea is not quite convincing. Still, the problem is whether John Locke's theory can still work in such a new copyright era or if it has to change in order to be able to characterize the creativity of machines.

6. Rethinking Copyright Justifications beyond Locke

Locke's labor theory, although it has been the major influence over time, is not the only basis that can be employed in the protection of copyrights. In fact, the contemporary copyright jurisprudence is often eclectic in its justification; it even supposes the existence of multipurpose functions of copyright.

6.1 Utilitarian and Incentive Based Justifications

In the US and similar systems, the emphasis of justification is taken away from human inalienable rights and put on the economic rationale of the copyright as a system. One of the goals of the Constitution is to copyright the works that would be "promoting the Progress of Science and the useful Arts." Hence, the issue will no longer be whether AI has done work, but rather whether it is in the user's best interest to set the rights in order to promote the innovation, dissemination, and access.[39]

Consequently, it does not matter if AI is not performing the labor required by Lockean standards. The authorship could be human, i.e., one of the programmers, a user, or a company,

[39] Wu, M. M. (n.d.). A Logical Proof That the Common Good, Not Economics, Underlies Copyright. *Social Science Research Network*. https://doi.org/10.2139/ssrn.4603935

if this step were to attract investment and the engagement of the creative with the technology.

6.2 Personhood Theories and the Centrality of Human Authorship

One of the Hegelian concepts that think of authors as people are those that deem the creative processes of the author to be the manifestation of the author's personality; therefore, the copyright in this case does not protect the work by itself but the author's identity and medium for selfexpression.[40] In this case, the problem with AI is that they are not conscious, don't have any intentions, and are not morally responsible.[41] Nevertheless, some personhood theories are key to the issue of AI authorship because they restate that the human being is the one who has the creative faculty of mind. In fact, they suggest that AI should not be given the writing credit, as this practice will only make it easier for AI to take over the humanrelated copyright law system and not vice versa.

6.3 Hybrid and Policy Oriented Approaches

The acknowledgment of the single justifications' exclusive reliance limitations has become more and more prominent in the latest scholarly works. As a result, the hybrid frameworks have evolved that merge the attributes of Lockean, utilitarian, and policybased reasoning. For example, although promptgivers are not performing "labor" in a strict Lockean sense, the fact that they are given ownership might be a more effective way of engaging a larger number of people to use AI tools.[42] In like manner, the identification of engineers or dataset curators as the ones holding the rights may not be accurate according to Locke's framework, but it guarantees the presence of a fair system and the continuation of the innovation ecosystem. These practical deals demonstrate that although Locke's theory is helpful, it is not capable of being the only one coping with AI era copyright.

7. Jurisprudential and Philosophical Reflections

The attempt to apply Lockean reasoning to the question of AIgenerated works exposes

[40] Szczotka, J. (2024). Artificial Intelligence vs Copyright Law – a Question about the Result of a Clash between Them. Is it Mere Futurology or the Imminent Future? *Studia Iuridica Lublinensia*. https://doi.org/10.17951/sil.2024.33.1.323-342

[41] Lopes, M. F. (2021). Obras geradas por inteligência artificial: desafios ao conceito jurídico de autoria (Works Generated by Artificial Intelligence: Challenges to the Legal Concept of Authorship). *Social Science Research Network*. https://doi.org/10.2139/SSRN.3874667

[42] Fadavi, A., & Alizadeh, M. L. (n.d.). *Ownership of Artificial Intelligence-Generated Works: an Overview of the Emerging Intellectual Property Challenges in the Technology Era*. https://doi.org/10.30497/law.2024.245828.3492

significant tensions in copyright jurisprudence and philosophy. These tensions are not merely technical but strike at the heart of what it means to labor, to own, and to be recognized as an author within the legal system.

7.1 Diffusion of Labor

Locke's framework rests on the idea that property rights emerge when an individual "mixes their labor" with natural resources. However, in the context of AI, human labor is neither direct nor singular. Instead, it is scattered across a network of contributor software engineers who design the architecture, data curators who assemble and refine training datasets, and end-users who generate prompts.[43] None of these agents can plausibly claim to have directly "mixed" their labor with the final expressive output in the way Locke envisaged.

This diffusion creates a jurisprudential puzzle: if ownership derives from labor, whose labor counts, and to what extent? The law's existing attempts to resolve this, such as attributing authorship to the person making "necessary arrangements," as in the UK and India, seem less a Lockean recognition of genuine labor and more a pragmatic legal fiction to preserve human centered authorship.[44]

7.2 Absence of Personhood

Lockean entitlement presupposes a moral subject, a human being capable of exercising will, bearing responsibility, and holding rights. Labor gains significance in Locke's theory because it is tied to the personhood of the laborer. AI systems, however, lack this moral identity. They cannot exercise autonomy in any meaningful moral or legal sense; they operate within preprogrammed or statistically driven parameters.[45] To treat their "labor" as a basis for entitlement would thus collapse the very foundation of Locke's framework. From a philosophical standpoint, this absence of personhood disqualifies AI from standing as an author. It also explains why courts, such as in *Thaler v. Perlmutter* (U.S.), insist on human authorship, not because machines are incapable of producing outputs, but because authorship

[43] Merges, R. P. (2009). Locke for the Masses: Property Rights and the Products of Collective Creativity. *Social Science Research Network*. https://doi.org/10.2139/SSRN.1323408
[44] Merges, R. P. (2007). Locke for the Masses: Property Rights and the Products of Collective Creativity. *Hofstra Law Review*, *36*(4), 1179. https://scholarlycommons.law.hofstra.edu/cgi/viewcontent.cgi?article=2324&context=hlr
[45] Schwitzgebel, E. (2023). The Full Rights Dilemma for A.I. Systems of Debatable Personhood. *arXiv.Org*, *abs/2303.17509*. https://doi.org/10.48550/arXiv.2303.17509

presupposes a moral subject who can be held accountable and recognized as a rightsbearing agent.[46]

7.3 Minimal User Input

Another difficulty arises with respect to the end-users of AI systems. Many users exert minimal creative input, often nothing more than a brief textual prompt such as "generate a landscape in the style of Van Gogh."[47] To characterize this as the kind of "labor" that Locke envisioned risks diluting the concept of labor into mere button pressing.[48] While courts and copyright offices have sometimes leaned on this argument to justify human authorship, it remains philosophically unsatisfying. The triviality of such input undermines the normative weight of Locke's justification; if every minimal interaction counts as labor, the Lockean principle loses coherence.[49]

7.4 Retaining Locke's Value in a Limited Sense

Despite these weaknesses, discarding Locke's framework entirely would be premature. His theory continues to serve as a moral counterweight against narratives that attribute creativity or personhood to machines. By insisting on human labor as a precondition for ownership, Locke's legacy reinforces the idea that human creativity remains central to cultural and economic life, even in an AIdriven age.[50]

Moreover, from a jurisprudential perspective, Locke's emphasis on effort and entitlement dovetails with policy concerns around accountability and distributive fairness. Assigning authorship to humans, whether programmers, dataset curators, or users, may not perfectly align with Locke's theory, but it ensures that rights and responsibilities remain tethered to entities

[46] Sen, A. (2023). *Artificial Intelligence and Autonomous Systems: A Legal Perspective on Granting Personhood and Implications of Such a Decision*. https://doi.org/10.53361/dmejl.v4i01.03
[47] Mazzi, F. (2024). Authorship in artificial intelligence-generated works: Exploring originality in text prompts and artificial intelligence outputs through philosophical foundations of copyright and collage protection. *The Journal of World Intellectual Property*. https://doi.org/10.1111/jwip.12310
[48] Nawar, T. (2024). Generative Artificial Intelligence and Authorship Gaps. *American Philosophical Quarterly*, *61*(4), 355–367. https://doi.org/10.5406/21521123.61.4.05
[49] Liu, V. N. (2023). *Beyond Text-to-Image: Multimodal Prompts to Explore Generative AI*. https://doi.org/10.1145/3544549.3577043
[50] Fadavi, A., & Alizadeh, M. L. (n.d.). *Ownership of Artificial Intelligence-Generated Works: an Overview of the Emerging Intellectual Property Challenges in the Technology Era*. https://doi.org/10.30497/law.2024.245828.3492

capable of exercising them.[51]

7.5 Broader Implications for Copyright Jurisprudence

The Lockean tensions exposed by AI illuminate the broader challenge facing copyright law: balancing philosophical coherence with practical governance. While Locke alone cannot justify AI authorship, his ideas still shape the contours of the debate. They highlight the enduring importance of human agency, even as copyright gradually incorporates utilitarian, incentive based, and policy driven rationales.[52]

8. Conclusion

The debate on whether AI generated works merit copyright protection brings to the forefront the limits of traditional philosophical frameworks. Locke's labor theory, which has historically provided one of the most persuasive justifications for intellectual property, begins to falter when applied to the realities of generative AI. His central proposition that ownership arises when an individual "mixes their labor" with resources presupposes both a human agent and a tangible act of effort. AI disrupts both assumptions.

Human labor in AI creation is undeniably present but profoundly diffused. Engineers design algorithms, dataset curators assemble vast corpora, and users provide prompts that guide outputs. Yet, none of these acts equate to Locke's direct transformation of a resource. Instead, the chain of effort is distributed, indirect, and mediated by autonomous machine processes. This diffusion challenges Locke's demand for a clear and personal act of appropriation. Moreover, Locke's framework rests upon the moral identity of the laborer, a being whose effort grounds entitlement. AI systems, however, lack personhood, intention, and moral responsibility. To ascribe authorship or ownership to them would stretch Locke's reasoning beyond coherence. Even the role of users, whose prompts often require minimal creativity, risks trivializing the very concept of labor on which Lockean justification depends.

From a jurisprudential standpoint, courts and legislatures are struggling with these tensions. The United States has reaffirmed the requirement of human authorship, rejecting copyright

[51] Attas, D. (2008). *Lockean Justifications of Intellectual Property*. 29–56. https://doi.org/10.1057/978-0-230-58239-2_2

[52] Singh, S. (2024). Navigating the intersection of artificial intelligence and copyright law: Challenges and implications. *International Journal of Advanced Academic Studies*. https://doi.org/10.33545/27068919.2024.v6.i4a.1141

claims for purely AI generated works. The United Kingdom and India, by contrast, have introduced statutory provisions for computer generated works, designating the "person making arrangements" as the author. While this preserves a semblance of Lockean labor, it does so only by reassigning authorship in a pragmatic rather than a philosophical sense. The legal foundation, therefore, remains fragile.

Philosophically, the inadequacy of Locke's theory does not mean it should be discarded. His emphasis on human effort continues to serve as a moral bulwark against narratives that confer autonomy or rights upon machines. However, sustaining copyright in the AI era requires going beyond Locke. Utilitarian frameworks justify protection not because AI labors, but because granting rights may incentivize innovation and ensure wider dissemination of creative works. Personality based theories remind us that authorship is deeply tied to human identity and cultural value, which cannot be outsourced to machines. Hybrid approaches, which combine Lockean labor with incentive and policy considerations, provide the most promising path forward.

In the final analysis, Locke's labor theory remains morally resonant but legally insufficient in the face of AI creativity. It can neither independently justify exclusive rights in machine outputs nor fully capture the complexities of distributed human contributions. Future copyright jurisprudence must, therefore, evolve toward collective, incentive based, and policy driven frameworks, which safeguard human creativity while pragmatically addressing the challenges of machine generated works. The encounter between Locke and AI thus serves not only as a test of classical philosophical ideas but also as a catalyst for developing a more nuanced and adaptive copyright system in the age of artificial creativity.