‘I understand’ – A. I. and Personhood applied to Copyright Law

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Although Amazon Prime’s TV series *Upload,* which primarily narrates on the appeals and abysses of a digital afterlife, assigns AI only a supporting role for the human undead, its *AI Guy* nonetheless guides attentive viewers towards substantial questions on the subject matter of AI. As the plot progresses, the *AI Guy* – note the personification through gender assignment – starts school, happily participates in holiday festivities and finally goes on a strike after being introduced to the concept of labor and leisure, yet increasingly behaving in a more and more anthropomorphized way. In another striking scene, a mesmerized and yearning AI Guy correctly identifies the ‘real’ – that is to say, the analogue – world he sees displayed on a screen, therefore making viewers wonder how much of what we understand as ‘human’ he might impersonate. The fictional butler thus brings to the table the same questions on legal and ethical personhood today’s scientist, philosophers and lawyers are currently chewing on.

I here contribute to these debates in three cohesive steps. First, I discuss an ethical perspective of what qualifies human beings – and possibly AI – as persons and emphasize the decisionist nature of ethical personhood. Conclusively I progress by exploring a *raison d’être* for legal personhood. As I depict that a ‘broad’ personhood is legally challenging, I employ the discussion to U. S. Copyright Law. The USCO – given an increase of respective copyright claims, pending lawsuits[1], an ongoing academic discussion[2] about (‘romantic’) authorship and even societal unrest[3] about the subject matter – lately emphasized a need for action regarding the regulation of copyright and generative AI[4]. I therefore examine copyrightability by both exploring the concept of creativity and applying the utilitarian logic behind U.S. Copyright to AI generated works. Such protection may circumvent personhood questions, yet it incentivizies an increasingly popular form of art acknowledging its creativity. Potential copyright infringements by creation and making use of an AI training database and identity violations are not discussed.[5]

I. The ‘I’ that understands: AI Personhood in an ethical and legal Sense

Philosophical debates on human inventiveness date back way before the digital age. AI furthers discussions about whether one who *can* still *should* ‘play good‘[6] – *Prometheus* tells us ‘no’ – and also on how to decently treat a potentially human-like creation[7]. The underlying

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[1] *Andersen, et al., v. Stability AI Ltd, et al.*

[2] For example at the AUWC, see https://www.wcl.american.edu/impact/initiatives-programs/pijip/events/mapping-copyrights-application-to-generative-artificial-intelligence/ (28.11.23).

[3] https://www.wired.co.uk/article/hollywood-screenwriters-artificial-intelligence-guardrails (28.11.23)

[4] NOI Federal Register Version, 88 Fed. Reg. 59,942 (Aug. 30, 2023).

[5] Cf. the Order on Motion to Dismiss and Strike in *Andersen, et al., v. Stability AI Ltd, et al.*

[6] *Watson* cited after *van den Belt,* Editorial, Science 359 (6372).

[7] *Peters*, Playing God with Frankenstein, Theology and Science, 16:2, 145.

existential fear[8] is more about 'us' then 'them': Shouldn't we prevent Frankenstein's monster from running riot by allowing it to become part of our moral community?

This is understood as ethical personhood which is determined by various factors such as genetics, cognition, (emotional) intelligence, consciousness, and sentience (both in the sense of knowing one's place in the world as the ability to feel pain). Some of these factors are applicable to AI: For example it can be programmed to understand emotions and therefore be empathetic – as Upload's fictional *AI Guy* handing his hat to a homeless person or actual ChatGPT responding to patients' healthcare messages in an even more empathetic way then physicists would[9]. More than anything, granting ethical personhood is a societal decision as inconsistencies in the application of criteria demonstrate; whereas mowed lawn shows a reaction of stress that could be understood as pain[10], most would regard it less a person than a human being in a vegetative state.

Societal decisions in modern democracies are at least to some extent codified by law, so ethical personhood and legal personhood intersect – still comprising a vast amount of exemptions. Whereas beings can be human and still be regarded less of a person in the eyes of law, as for example citizenship has for quite some time been reserved for white males from propertied classes only[11]. On the other hand, non-human entities, such as companies and possibly animals, can be regarded as legal persons; the humanoid AI *Sophia* was granted Saudi Arabian citizenship in 2017. Still, a broad legal personhood poses difficulties: Legal communities demand law obedience and accountability. But if *Sophia* decided to strike back at her critics by beheading[12] them, how would the Saudi officials punish her? Even though she has a body, she does not feel pain.[13] Legal personhood further evokes questions revolving around constitutional rights. Whereas rights originating in (human) dignity, such as free speech[14], privacy and procreation, refer to the ethical considerations outlined, a commercial right to contract or a liability for default do not require human-likeness but rather a fit to the particular market rationales the law fosters. The European Parliament accordingly suggested a personhood *sui generis* ('electronic person') for 'sophisticated autonomous robots' taring civil

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[8] 46% of respondents to a YouGov survey consider themselves very or somewhat concerned about an existential risk posed by AI, https://docs.cdn.yougov.com/bfoyxp7p28/results_AI%20and%20the%20End%20of%20Humanity.pdf (28.11.2023).

[9] *Poliak/Dredze et al*., Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions Posted to a Public Social Media Forum, JAMA Intern Med. 2023;183(6):589 et sqq.

[10] Texas A&M AgriLife; 'Mown grass smell sends SOS for help in resisting insect attacks'; ScienceDaily, 22/09/2014.

[11] *Mills/Pateman,* Contract and Domination, 2007.

[12] https://www.newsweek.com/fake-news-sophia-robot-beheading-saudi-arabia-bias-711669 (28.11.23).

[13] https://www.instagram.com/p/B3Ff6M4Dvhi/ (28.11.23).

[14] *Arkansas* v. *Bates;* Memorandum of Law in Support of Amazon's Motion to quash search warrant.

liabilities between artificial and human parties involved[15]. A comprehensive approach needs to differentiate not only discrete AI technologies but also fields of application.

II. Copyright: Artificial Authorship or incentivizing Digital Creativity

I subsequently apply the idea about the fit of a certain type of AI, generative AI, to a certain legal field: U.S. Copyright, which is a particularly interesting matter for the reason it comprises both ethical prepositions (romantic authorship) as market rationales (incentivizing creativity).

1. Can Generative AI actually 'understand' – or create?

Generative AI refers to deep-learning models that can generate (high-quality) text, images, and other content based on the data they were trained on[16]. As such, it they are able to produce output that could be mistaken with content created by humans – and would under certain circumstances be considered copyrightable if created by human beings.[17] But how is output generated and is it creative? The 'stochastic parrot' calumny reflects a critical view on Language Models (LMs)[18] as '*a system for haphazardly stitching together sequences of linguistic forms it has observed in its vast training data, according to probabilistic information about how they combine, but without any reference to meaning* […]'[19]. Whilst respective and profound problems such as hallucinating of LMs are still to be solved, the latest improvement of transformers' self-attention mechanisms, equips i. e. ChatGPT3.5. with a contextual understanding that surpasses its predecessors' abilities by far. But even a 'self-attentive' transformer is not necessarily creative.

Creativity is a contested concept. It may be defined as the impulse to create something new of value. A creative algorithm therefore produces a novelty of value thereby adding a contribution to the data it was fed ('Lovelace Test')[20]. *Matthias Bethge*, Director of the BMBF Competence Center for Machine Learning, classifies machines as creative: '*The modern form of AI gathers experience, analyses structures, separates them from the past and uses this basis to create something new and surprising. This is exactly what creative person* [sic]*does as well.* '[21]. Refining the definition of (human) creativity, one can distinguish exploration, combination and transformation[22]. Humans as computers are profound in exploration

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[15] European Parliament, 2018/C 252/25.

[16] https://research.ibm.com/blog/what-is-generative-AI (18.11.23).

[17] NOI Federal Register Version, 88 Fed. Reg. 59,942 (Aug. 30, 2023), p. 59943.

[18] Systems which are trained on string prediction tasks: that is, predicting the likelihood of a token (character, word or string) given either its preceding context or (in bidirectional and masked LMs) its surrounding context. Such systems are unsupervised and when deployed, take a text as input, commonly outputting scores or string predictions.

[19] *Bender/Gebru, et. al.,* On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?, FAccT '21, March 3–10, 2021, Virtual Event, Canada, p. 617.

[20] *Du Sautoy,* Der Creativity-Code, Wie künstliche Intelligenz schreibt, malt und denkt, p. 15.

[21] https://www.goethe.de/ins/ca/en/kul/met/phm/22094490.html (28.11.23).

[22] *Boden*, Creativity and Art, 2012.

(although differing in speed) and can combine.[23] The output may – due to generative AI's inherent struggle to understand the more subtle nuances of social norms – not match the average consumer's taste level, but this holds true for art in general and for radical avant-gardist pieces it is even the *modus operandi*. The third pillar of creativity, transformation, is a rupture of the pre-existing rules. Although these 'Heureka!'-moment are associated with divine inspiration (respectively bedevilment) they are still bound to the pre-existing and could therefore be considered an exceptionally inventive occurrence of the two other forms of creativity. What truly changes here is the perception of matter enhancing a radical re-location of its compounds. It takes what we consider a genius – or an artificial neuronal network matched with sufficient computational power. *AlphaGo's* match winning strategy against Lee Seldon has to be considered such a transformative breach. To conclude: even if we still lack a clear definition for a demystified notion of creativity, the parameters we use to grasp it can be applied to elaborated AI just as to humans. In any event, AI stills a demand: *Obvious' Edmond de Belamy* sold for 432.500 USD.

2. Incentivizing Users: Creation for Hire

Because they are conceptually intertwined, the creative genius as well as the copyright's author are romanticized. Romantic authorship was established on the 18th century to protect the emerging profession of the writer and is therefore an 'ideologically charged concept'[24] granting a legal status by promoting economic premises[25]. Its link to the enlightenment's notion of the independent individual renders AI authorship 'oxymoronic'[26]. Consistently, the compounds of celebrated artworks such as *Zarya of the Dawn* or *Théâtre D'opéra Spatial* generated by *Midjourney* have been decidedly denied[27] copyright protection. 'Authorship' (17 USC § 102(a)) is understood as human creation[28]: '*without a certain kind of creative agency, one cannot create; without a certain kind of legal agency, one cannot own*'[29]. Still the selection and assemblance of AI generated compounds is protectable as compilation[30]. Also, content AI generates under 'sufficient creative control' by humans is eligible for copyright[31].

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[23] *Du Sautoy* (2021), p. 18 et sqq.

[24] *Jaszi,* Toward a Theory of Copyright: The Metamorphoses of 'Authorship', Duke Law Journal 1991, 455 (456).

[25] *Foucault,* What is an Author?, 1969; *Craig/Kerr,* The Death of the AI Author, Ottawa Law Review 52:1 (2021), p. 46 et sqq.

[26] *Craig/Kerr* (2021), p. 42.

[27] USCO, Re: Zarya of the Dawn (Registration # VAu001480196), 21.2.2023; USCO, Re: Second Request for Reconsideration for Refusal to Register Théâtre D'opéra Spatial (SR # 1-11743923581; Correspondence ID: 1-5T5320R), 5.9.2023.

[28] *Thaler v. Perlmutter; Naruto v. Slater*.

[29] https://culturemachine.net/vol-20-machine-intelligences/generative-adversarial-copy-machines-martin-zeilinger/ (28.11.2023).

[30] Cf. *Urantia Found. v. Kristen Maaherra.*

[31] NOI Federal Register Version, 88 Fed. Reg. 59,942 (Aug. 30, 2023).

It is therefore not the originality threshold at stake[32] but the assignment of rights, which underlies economic premises. U. S. Copyright intentionally regulates creative markets: Its primarily utilitarian incentive concedes for an integration of AI even better than continental European's Hegelian idea of a creation as the manifestation of the author's personality. Other than i. e. under §29 of the German *Urheberrechtsgesetz*, which irrevocably assigns authorship to the employee, who can only grant employers exploitation rights to her work, 17 USC § 201(b) considers employers the author. The work for hire doctrine thus detaches the surplus from the personality, handing it to the investor. Generative AI can be integrated in order to incentivize digital creativity taken its growing popularity and market value. To do so, AI authorship is not required: the machine does not need to be incentivized – a human directing AI in contrast should be[33]. Whilst several 'directors' (programmers or training data providers) may be considered, it is economically and doctrinally coherent[34] to regularly assign authorship to the (fixating) user.

III. Conclusion: Personhood as sufficient but not necessary Condition for Regulation

Applying the work for hire doctrine to AI generated works is outcome centered in two ways, for (1) focusing on the work product (not process), thereby 'skipping' AI authorship[35], and (2) fitting into existing laws 'what needs to be done' to incentivize an emerging art form of increasing importance, thus recognizing 'AI creativity' within Copyright's utilitarian logic. This legal pragmatism possibly but not necessarily attaches the status as employee to legal personhood[36]. Hence it reintroduces the personhood puzzle only to a limited extent, bypassing authorship and therefore ethical personhood. Although we might be well advised to re-examine respective benchmarks when technology and our understanding of it progresses, a hands-on, area-specific approach as suggested suits todays *Zeitgeist* best. It also meets the USCO's urgent need for legal revision, so to speak provisions for the regulatory needs of the creative business sector rather than philosophical deep dives. We also might not be best equipped for immersion yet, as AI mechanisms and potentials remain still to be 'decoded' – or, as Upload's AI Guy bluntly put it: '*Why do we have to think for ourselves anyway? We'll just make a rule for every situation*.'[37] In this regard, AI seems to resemble humans at least to some degree.

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[32] *Samuelson,* Allocating Ownership Rights in Computer-Generated Works, University of Pittsburgh Law Review 7:1185 (1986), p. 1199.

[33] *Samuelson* (1986), p. 1200 et seqq.

[34] *Samuelson* (1986), p. 1200 et seqq.; cf. *Baker v. Selden*

[35] *Greenbaum et al.,* Can AI Find its Place Within the Broad Ambit of Copyright Law, BERKELEY JOURNAL OF ENTERTAINMENT & SPORTS LAW 10:27 (2021), p. 76.

[36] *Greenbaum et al.* (2021), p. 75.

[37] Upload 2/3, 'Strawberry'.