Independent Creation in a World of AI

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ABSTRACT

Scholars have long debated whether the outputs of AI systems should be subject to copyright. On the one hand, the automated nature of many AI systems may make copyright unnecessary as an incentive for the creation of those AI systems' outputs, in which case society would be better off withholding copyright protections from them. On the other hand, those outputs often exhibit sufficient creativity to merit copyright protection, and without copyright, parties that use AI systems to create such outputs may lack the necessary incentives to do so.

In this Essay, prepared as part of the Florida International University Law Review's symposium on intelligent entertainment, I argue that copyright law's independent creation defense, as well as the widespread availability of AI systems for helping authors in their creative efforts, helps address some of the concerns embedded in these debates. Historically, the independent creation defense has rarely applied, simply because independent creation of similar expression is highly unusual. But as this Essay explores, AI increases the likelihood of multiple parties creating similar expression independently, meaning that the defense can help defuse worries that applying copyright to AI outputs will result in a copyright quagmire. Furthermore, the availability of AI systems for assisting authors in their creative efforts means that authors have tools for more readily creating unique works that avoid many of the remaining copyright landmines.

Other copyright issues linger, however, and the last part of this Essay examines some of these concerns in brief. In particular, parties may wish to use specific AI outputs in their own creative efforts, and neither the independent creation defense nor the availability of AI tools for creating something unique helps address this problem. Copyright law's fair use defense may, however, and the Essay concludes by briefly examining how.

I.   INTRODUCTION

Copyright scholars have long wrestled with whether the outputs of AI systems should be subject to copyright.[1] Some argue that the outputs should be subject to copyright when implementing the AI systems and the outputs themselves both involve creativity.[2] In contrast, others argue that mostly automated AI systems do not need copyright incentives to yield their outputs, and that copyright, therefore, should not apply to those outputs.[3] Relatedly, others have reasoned that in cases where creative outputs cannot be directly traced to an author and their creative purposes, copyright should not protect such works.[4]

This Essay argues that these debates, while important, fail to acknowledge how copyright law's independent creation defense, as well as the growing availability of AI systems for assisting creative parties, helps address at least some of the concerns embedded in those debates. The independent creation defense excuses a party whose work is identical or similar to that of another party from copyright liability if that party developed it independently of the other.[5] Historically, this defense has rarely played a role that other copyright doctrines don't already fulfill. For starters, the likelihood of two independent parties developing the same or similar creative

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[1]   For an early treatment of this issue, see Pamela Samuelson, *Allocating Ownership Rights in Computer-Generated Works*, 47 U. PITT. L. REV. 1185 (1986).

[2]   *See, e.g.*, Nina I. Brown, *Artificial Authors: A Case for Copyright in Computer-Generated Works*, 20 COLUM. SCI. & TECH. L. REV. 1 (2018); Robert C. Denicola, *Ex Machina: Copyright Protection for Computer-Generated Works*, 69 RUTGERS U. L. REV. 251, 271, 272 (2016) (essentially making this argument); *cf.* James Grimmelman, *There's No Such Thing as a Computer-Authored Work—And It's a Good Thing, Too*, 39 COLUM. J.L. & ARTS 403 (2016) (arguing that authors using AI systems to create works raises no vital differences from when authors use other tools such as pen and paper to create works, meaning that general copyright principles apply similarly in the AI context as in others).

[3]   Ralph D. Clifford, *Intellectual Property in the Era of the Creative Computer Program: Will the True Creator Please Stand Up?*, 71 TUL. L. REV. 1675, 1699–1702 (1996); Samuelson, *supra* note 1, at 1199; *see also* Annemarie Bridy, *The Evolution of Authorship: Work Made by Code*, 39 COLUM. J.L. & ARTS 395, 400–01 (2016) (suggesting that policy reasons may disfavor copyright for AI-generated works, but that the works-made-for-hire doctrine is already a tool in U.S. copyright law for accommodating non-human authors).

[4]   Bruce E. Boyden, *Emergent Works*, 39 COLUM. J.L. & ARTS 377, 390–91 (2016).

[5]   John F. Duffy, *Inventing Invention: A Case Study of Legal Innovation*, 86 TEX. L. REV. 1, 8 (2007).

output is simply slim.[6] Furthermore, when two parties do develop similar creative outputs independent of each other, those similarities typically lie in unprotectable elements such as ideas or scenes a faire, not protectable expression.[7] Other copyright limitations thus already shoulder much of whatever burden the independent creation defense in copyright was meant to carry.

But in the context of AI systems and their outputs, the independent creation defense is poised to take on greater prominence, thereby helping address some of the concerns of both those for and against subjecting the outputs of AI systems to copyright. The independent creation defense is likely to increase in importance in the AI context because AI systems utilizing widely available public domain techniques and similar inputs may often yield similar creative outputs that are nonetheless independently derived.[8] Hence, multiple parties may claim copyright in the similar creative outputs of their systems without infringing each other's copyright rights.[9] This reality does not fully eliminate the concern that the mass increase in creative outputs that AI systems enable will seed the artistic landscape with copyright minefields if those creative outputs are subject to copyright.[10] Yet the growing availability of AI systems capable of assisting parties in their creative efforts means that parties have an easier time coming up with creative outputs that are not only independently derived, but lacking in similarity as well.[11]

Hence, though some may worry that allowing copyright to apply to an AI system's millions of outputs will inhibit follow-on creativity, the independent creation defense would appear to be a viable defense to excuse many creators' similar, AI-assisted works. Or, in the alternative, widely

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6   *Id.* at 9 ("[W]hile it is theoretically possible for an entire book or song to be independently created by two individuals, as a practical matter the chances of that happening are virtually zero.").

7   *Id.* (discussing how limiting copyright protection to actual expression, rather than general concepts and themes, sufficiently protects authors).

8   Dirk Knemeyer & Jonathan Follett, *Could Machines Become Creative?*, MEDIUM (June 13, 2019), https://towardsdatascience.com/could-machines-become-creative-49f346dcd3a3 (discussing some of the abilities and limitations of AI in producing creative outputs); Ronald Schmelzer, *Artificial Intelligence Creativity Tools Mimic Human Ability*, SEARCHENTERPRISEAI (Mar. 26, 2019), https://searchenterpriseai.techtarget.com/feature/-Artificial-intelligence-creativity-tools-mimic-human-ability (discussing open source AI tools that allow media companies to input data to obtain automatically generated text).

9   Duffy, *supra* note 5, at 8.

10   Or, for that matter, that AI-generated works will infringe copyrighted works upon which they relied for inputs. *See* Timothy Geigner, *Art, AI & Infringement: A Copyright Conundrum*, TECHDIRT (Oct. 16, 2018, 7:46 PM), https://www.techdirt.com/articles/20181005/09595440788/art-ai-infringement-copyright-conundrum.shtml.

11   *See* James Vincent, *Runway ML Puts AI Tools in the Hands of Creators Everywhere*, THE VERGE (July 10, 2019, 8:00 AM), https://www.theverge.com/2019/7/10/20682307/ai-machine-learning-easy-to-use-models-creatives-runway-ml.

available AI systems can help parties readily create something dissimilar or unique. These points obviously do not eliminate all concerns. In particular, parties may often wish to use specific AI outputs, in which cases neither the independent creation defense nor the availability of AI tools provides much help. Copyright's fair use defense may, however, and this Essay concludes by briefly assessing how the fair use doctrine might play a role in allowing such uses.

Below, I first briefly discuss some of the background literature on the debate regarding whether AI-assisted creative works should be subject to copyright. I then make the argument that the independent creation defense, as well as the growing availability of AI systems for assisting parties in their creative efforts, addresses some of the concerns that others have raised. I conclude with some brief thoughts on outstanding issues going forward, including how the fair use defense may apply in the context of AI outputs.

II.   THE COPYRIGHTABILITY OF AI OUTPUTS

Commentators have long debated whether the outputs of AI systems deserve copyright protections. In this Part, I briefly survey this field, while acknowledging that for time's sake it is necessarily incomplete.

A significant group of scholars and commentators have argued that copyright cannot apply to automatically generated creative outputs because those outputs lack human authors.[12] In other words, because the computer program is in some sense the creator of many of these outputs, copyright cannot apply to them. Though the Copyright Act does not specifically indicate that authors must be human, many commentators and scholars believe that such a condition is implied.[13] This no-human-author-therefore-no-copyright approach seems to have been the position of the Register of Copyrights as early as 1965, and since then it has grown in acceptance.[14] In fact, it is currently the official position of the U.S. Copyright Office.[15]

Part of the rationale behind this position seems connected to the dominant theory behind copyright in the U.S. This theory holds that society

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[12]   2 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 3:45 (2016) ("Copyright extends only to works of human authors."); 1 PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 2.2.2 (3d ed. 2014) (indicating that copyright should not apply "to a computer-generated product for which the only human intervention is the hand that turned on the machine").

[13]   *See, e.g.*, Clifford, *supra* note 3, at 1682 ("Although not specifically defined, the use of the term 'author' in the Copyright Act implies that Congress meant a human author.").

[14]   *See* U.S. COPYRIGHT OFFICE, SIXTY-EIGHTH ANNUAL REPORT OF THE REGISTER OF COPYRIGHTS FOR THE FISCAL YEAR ENDING JUNE 30, 1965 5 (1966).

[15]   U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 306 (3d ed. 2017), http://www.copyright.gov/comp3/docs/compendium.pdf. A subsequent section reiterates: "[A] work may be copyrightable . . . if the work was created by a human author . . ." *Id.* § 309.

offers copyright to parties as an incentive for them to create socially beneficial things.[16] In other words, if society does not offer copyright protections to potential authors, those authors will be reluctant to create new works because third parties could so easily replicate those creations at little to no cost to themselves.[17] Hence, because in some cases AI systems develop creative outputs with limited human input (and perhaps in the future, none), they do not need incentives to undertake socially beneficial creative acts.[18] We need not, therefore, dangle the copyright incentive before their uncomprehending eyes.

Yet no AI systems are fully automated; they all require some amount of human involvement (at least for now).[19] Hence, some have argued that AI outputs do deserve copyright protections because the AI systems are simply tools that human authors use to create things, and withholding copyright protections may disincentivize those human authors from utilizing the AI tools to so create.[20] This, in fact, was more or less the position of the commission responsible for making recommendations to Congress leading up to the last major revision of the Copyright Act in 1976; it viewed the matter as relatively "simple" because AI systems, like pen and paper, are simply tools that an author uses to bring about their creative results.[21] And by denying these authors copyright in the fruits of their efforts, we may deny them the appropriate incentives to undertake their creative efforts.[22]

But this question becomes a more difficult one when AI systems are more capable than in previous eras at yielding their own creative outputs without much human involvement at all.[23] The "pen-and-paper" view of AI output copyrightability assumes that human authors remain the creative geniuses behind the works, even if that genius utilizes AI and other technologies in bringing about their creative visions. Yet in today's world, some AI systems require very little creative input from human beings in order

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16   *See, e.g.*, Christopher Jon Sprigman, *Copyright and Creative Incentives: What We Know (and Don't)*, 55 HOUS. L. REV. 451, 454 (2017) ("The grounding justification for copyright is that granting exclusive rights in artistic and literary works will incentivize authors to invest in new creativity.").

17   *Id.*

18   Clifford, *supra* note 3, at 1702–03 ("No extra incentives are needed to make currently available creative computers produce works - if the computer program is executed, the works will result.").

19   Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU?*, 106 HARV. L. REV. 977, 1066–67 (1993).

20   *Id.* at 1067.

21   NAT'L COMM'N ON NEW TECH. USES OF COPYRIGHTED WORKS, FINAL REPORT OF THE NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS 4 (1978), http://digital-law-online.info/CONTU/PDF/index.html.

22   Samuelson, *supra* note 1, at 1226 ("Perhaps the best reason to allocate ownership interests to someone, however, is that someone must be motivated, if not to create the work, then to bring it into public circulation.").

23   Bridy, *supra* note 3, at 396–97.

to generate highly creative outputs.[24] And in the not-too-distant future, it may be the case that AI systems are nearly entirely automated in generating *their own* creative outputs. Hence, perhaps it becomes more justifiable to deny these human authors copyright protections in the outputs of the AI systems they use because in important respects they are not actually authors of those outputs—the AI systems increasingly are.

Some still view this scenario as mostly plain-vanilla copyright territory, because, at the end of the day, no AI system is truly capable of authoring anything without the involvement, at some level, of human authors.[25] But the level of involvement makes the question thornier for others—if the human author sets up the system initially but then does little thereafter, do they really deserve or need copyright protections for the outputs of those systems?[26] Scholars have proposed a number of possible solutions to this question, including applying joint authorship and the works-made-for-hire doctrine to AI-generated creative outputs.[27] But each of these has limitations and fails to fully resolve existing concerns.[28]

One of the most critical remaining concerns is that applying copyright to AI-generated outputs will significantly inhibit creative efforts overall. For instance, if a creative party utilizing AI is able to produce thousands or even millions of copyrightable works in a short span of time, then each of those thousands or millions of copyrights may stand in the way of other creative parties wishing to make use of the same or similar expression in their own creative efforts.[29] AI technologies may thus foment a copyright anticommons, where creative parties wishing to engage in their own creative activities face so many AI-spawned copyright hurdles that they simply relent in those efforts.[30]

A related concern is that as AI outputs increasingly become more the products of the AI's genius rather than that of any humans tangentially

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[24]   *See* Annemarie Bridy, *Coding Creativity: Copyright and the Artificially Intelligent Author*, 2012 STAN. TECH. L. REV. 5, 10–15 (discussing how AI programs have grown more capable of producing unpredictable yet creative results).

[25]   *See* Grimmelman, *supra* note 2.

[26]   *See* Boyden, *supra* note 4 (arguing that parties don't deserve copyright in AI-generated outputs when the creativity manifest in those outputs is not directly traceable to the parties' creative genius).

[27]   *See* Bridy, *supra* note 3 (examining applying the works-made-for-hire doctrine to AI-generated outputs); Samuelson, *supra* note 1 (examining, among other options, joint authorship for AI-generated outputs).

[28]   *See* Samuelson, *supra* note 1 (analyzing and critiquing a number of possible solutions to the question of whether AI-generated outputs deserve copyright).

[29]   *See* Bianca Bosker, *Philip Parker's Trick for Authoring over 1 Million Books: Don't Write*, HUFFPOST (Feb. 11, 2013, 8:59 AM), https://www.huffpost.com/entry/philip-parker-books_n_2648820 (discussing an academic's use of AI to produce millions of creative works, including books and poems).

[30]   *See* Clark D. Asay, *Software's Copyright Anticommons*, 66 EMORY L.J. 265 (2017) (discussing such a phenomenon in the software context).

involved, copyright simply loses its founding justification.[31] And even going beyond typical utilitarian justifications for copyright, we may be hesitant to grant human authors copyright in their AI outputs if those outputs required little of the human beings' labor or creative purposes.[32] Indeed, parties developing such systems may have plenty of other incentives to continue to create them, including market demand and other forms of intellectual property protections such as patents.[33] Copyright may thus lose its justification because it is unnecessary as an incentive for parties to create such AI systems, even if some of them would welcome the extra intellectual property protections.

But others contest such a conclusion, believing that because the AI systems in some sense "originate" with their developers, those developers deserve and are incentivized by copyright protections in the outputs of their systems.[34] Withholding copyright from them will thus result in less creative output overall as developers shy away from creating AI systems whose outputs they cannot own.[35]

And the debate goes round and round. There are many possible responses to this quagmire. But this Essay contends that copyright law's independent creation defense, as well as the growing availability of AI systems for assisting parties in their creative endeavors, helps alleviate some of these concerns. The next Part explores how.

III. COPYRIGHT'S FORGOTTEN DEFENSE

A. *Independent Creation Irrelevance*

In the United States, copyright applies to all "original works of authorship fixed in any tangible medium of expression."[36] Thus, so long as some work is "original" and "fixed" for more than a transitory period of time, nearly any type of work can qualify for copyright protection under today's

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[31] Boyden, *supra* note 4, at 388–89, 392.

[32] *Id.* at 380, 393; *see also* Carys J. Craig & Ian R. Kerr, The Death of the AI Author 38 (Mar. 25, 2019) (unpublished manuscript) (on file with We Robot 2019, Miami), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3374951 (arguing that the state of AI's capabilities make no difference as to whether AI can count as an author, because authorship is relational in a way that AI systems may never be).

[33] Patents, in fact, are the form of intellectual property protection most typically associated with incentivizing technological innovation such as AI development. *See* Andrew W. Torrance & Bill Tomlinson, *Patents and the Regress of Useful Arts*, 10 COLUM. SCI. & TECH. L. REV. 130, 132 (2009) ("Patent systems are usually justified by an assumption that they spur technological innovation.").

[34] Denicola, *supra* note 2, at 286–87.

[35] *Id.* at 269.

[36] 17 U.S.C. § 102 (2019).

copyright laws.[37] While the fixation requirement can cause the authors of certain types of works headaches,[38] the originality requirement is typically viewed as the more important of the two copyrightability standards.[39] Indeed, the Supreme Court has defined originality as the "bedrock principle of copyright . . . the very premise of copyright law."[40]

What, exactly, does originality entail? According to the Supreme Court, it means that the author "independently created the work" and that the work contains "at least some minimal degree of creativity."[41] The creativity required for some work to qualify for copyright protection thus need not be much; even a mote will do.[42]

Combined, these two requirements of originality thus mean that two or more parties can come up with the same or similar creative expression, so long as they do so independent of one another.[43] Hence, copyright's independent creation requirement simultaneously imposes a copyright limitation, commonly referred to as the independent creation defense to copyright infringement.[44] If successfully wielded, the defense provides multiple parties copyright protections in their respective creations, even if identical or similar, so long as each of the parties did not copy their creative expression from anyone else.[45]

Consequently, if someone produced the Harry Potter series in nearly identical form as J.K. Rowling, that second party would technically be in the clear, legally speaking, so long as they produced the material independent of J.K. Rowling. They would also have copyright rights in their Harry Potter replica, leading to the counterintuitive result that both parties owned copyright in the same material. And while either party could still assert their rights against the rest of the world for copying their works, neither party would have a copyright cause of action against the other.

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37   *See, e.g.*, 17 U.S.C. § 102(a)(1)–(8) (2019) (providing a non-exhaustive list of the categories of works that can qualify for copyright protection).

38   Megan M. Carpenter, *If It's Broke, Fix It: Fixing Fixation*, 39 COLUM. J.L. & ARTS 355, 359–60 (2016) (detailing many problems with the fixation requirements in a number of contexts).

39   Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 347 (1991).

40   *Id.*

41   *Id.* at 345.

42   Arianna D. Chronis, *The Inky Ambiguity of Tattoo Copyrights: Addressing the Silence of U.S. Copyright Law on Tattooed Works*, 104 IOWA L. REV. 1483, 1487 (2019) (referencing the oft-stated maxim that copyright protection requires a "modicum of creativity," which is typically satisfied if an author "uses *some* (however small) amount of creativity").

43   Christopher Brett Jaeger, *"Does That Sound Familiar?": Creators' Liability for Unconscious Copyright Infringement*, 61 VAND. L. REV. 1903, 1912–13 (2008).

44   *See* Clarisa Long, *Information Costs in Patent and Copyright*, 90 VA. L. REV. 465, 526 (2004) (discussing the defense).

45   Gideon Parchomovsky & Alex Stein, *Intellectual Property Defenses*, 113 COLUM. L. REV. 1483, 1493–94 (2013).

Of course, the above scenario is an impossible one; no one could ever actually replicate the Harry Potter series, utilizing the same or similar expression, independent of J.K. Rowling. And even if they somehow magically did, courts would be unlikely to believe them, because courts often infer that parties did not independently develop some creative expression if that expression mirrors too closely the copyrighted works of another.[46] Indeed, in some cases a work's "striking similarity" to a copyrighted work leads courts to largely dispense with other evidentiary considerations and conclude that the party must have, in fact, copied the copyrighted work to create their own.[47] The independent creation defense is thus largely illusory in many contexts, even if it sounds nice in theory.

In other contexts, the independent creation defense might be said to have greater potency. For instance, parties often purport to rely on the defense in what are called "cleanroom" techniques.[48] In these scenarios, parties find a competitive product that they wish to copy.[49] Software programs are a typical candidate.[50] Knowing that they cannot directly copy the software code—considered the creative expression or "text" of the software—the company simply figures out what the ideas behind the program are and commissions their engineers to implement those ideas in their own program utilizing independently written software code.[51]

Yet even in this context, other copyright limitations are actually carrying much of the weight in limiting copyright. For instance, the primary reason that the subsequent company is able to replicate the ideas behind their competitor's software program is not because of independent creation, but rather because the ideas behind the program are not copyrightable expression.[52] The independent creation defense does allow the subsequent developers to create their own copyrightable expression implementing those ideas. But in most cases that new software code will not mirror the software code of their competitor, meaning that the two parties have not independently

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[46] Jaeger, *supra* note 43, at 1911 (discussing the phenomenon of unconscious copying); Olufunmilayo B. Arewa, *The Freedom to Copy: Copyright, Creation, and Context*, 41 U.C. DAVIS L. REV. 477, 536–37 (2007) (discussing how courts sometimes infer access, and thus lack of independent creation, based on "striking similarity").

[47] *See, e.g.*, Arnstein v. Porter, 154 F.2d 464, 468 (2d Cir. 1946) ("If evidence of access is absent, the similarities must be so striking as to preclude the possibility that plaintiff and defendant independently arrived at the same result.").

[48] Peter S. Menell, *Rise of the API Copyright Dead?: An Updated Epitaph for Copyright Protection of Network and Functional Features of Computer Software*, 31 HARV. J.L. & TECH. 305, 474 (2018).

[49] *Id.*

[50] *Id.*

[51] *Id.*

[52] Allen D. Madison, *The Uncopyrightability of Jokes*, 35 SAN DIEGO L. REV. 111, 116 (1998) (discussing this limitation within copyright law).

developed identical or similar software expression. They have simply implemented non-copyrightable ideas, which the idea-expression dichotomy in copyright law allows, not the independent creation defense.[53]

Relatedly, when parties independently include common themes, subplots, and other elements in their works that also show up in third parties' copyrighted works, they are able to do so primarily because copyright law's scenes a faire doctrine precludes protection in those elements.[54] This doctrine prevents parties from having copyright in elements of a copyrighted work that are deemed to be indispensable to or customary in a particular field.[55] For instance, if a party were to write a book about salmon migrations, that party could not claim copyright in elements that are necessary to writing a book about such migrations, including the presence of hungry bears, the upstream migration back to the spawning grounds, and so forth.[56] Others wishing to write about a similar topic would be entitled to include these elements in their own works, despite the initial author including them in their work first.[57]

Hence, often the reason subsequent creators are able to include similar or the same elements in their own follow-on works is not because of independent creation—indeed, similarities between the two works may often lead courts to reject claims of independent creation, even if the courts do not ultimately find copyright infringement.[58] Instead, courts are likely to allow replication of these stock elements because they are not copyrightable expression under the scenes a faire limitation. It may be true that parties independently developed the same elements in their respective works, and so it might be said that the independent creation defense has some role to play, particularly in disproving factual copying under the first prong of a typical copyright infringement analysis.[59] But similar to the idea-expression context, the reality is that the main reason we allow parties to replicate such common elements is because, lacking the creative spark that we reserve for copyrightable expression, we do not believe that they should be subject to

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53   *Id.*

54   *See generally* Leslie A. Kurtz, *Copyright: The Scenes a Faire Doctrine*, 41 FLA. L. REV. 79 (1989) (giving a general overview of this doctrine).

55   Alexander v. Haley, 460 F. Supp. 40, 45 (S.D.N.Y. 1978) (defining scenes a faire as "incidents, characters or settings which are as a practical matter indispensable, or at least standard, in the treatment of a given topic").

56   Clark D. Asay, *Intellectual Property Law Hybridization*, 87 U. COLO. L. REV. 65, 77–78 (2016).

57   Kurtz, *supra* note 54.

58   *See generally* Alan Latman, *"Probative Similarity" as Proof of Copying: Toward Dispelling Some Myths in Copyright Infringement*, 90 COLUM. L. REV. 1187 (1990).

59   *Id.*

copyright at all.[60] If such elements were copyrightable expression because they contained creativity, we would almost certainly subject others to copyright liability for utilizing similar elements, even if independently derived, because we would doubt their independence claims.[61] But lacking the desired creativity, we mostly dispense with the independence question altogether and deny those elements copyright protection on the basis of the scenes a faire doctrine.

Copyright law's merger doctrine is another copyright limitation that carries some of the weight that the independent creation defense may otherwise shoulder. This doctrine holds that when only one or a limited number of ways exist to express an idea, that idea merges with those limited number of expressive choices such that copyright protection ceases to exist.[62] Hence, two parties may independently come up with bumble bee earrings that are nearly identical in appearance if those similarities owe to the physiology of actual bees.[63] If one party were to sue the other, one defense that the sued party may raise is that they independently developed the bee earrings. And that defense may ultimately prove successful. Yet similar to the idea-expression and scenes a faire contexts, the main reason we might lend that defense credibility is because the earrings both derive from the appearance of actual bees, and so their similarities are understandable. In other words, those similarities are simply not copyrightable expression. Hence, in such cases, principles of merger carry most of the weight in limiting copyright, even if independent creation appears to play a prominent role.

In sum, in many copyright contexts, independent creation is simply an impossibility, such that the defense rarely if ever plays an important role in limiting copyright. And while in other contexts we may often point to independent creation as playing a role in allowing parties to develop similar works, typically the idea-expression, scenes a faire, and merger doctrines do much of the actual work in limiting copyright protections. But in the AI context, the independent creation defense is poised to play a much larger role in allowing parties to produce similar creative results without incurring liability. The next section explores how.

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60   *See* Comput. Assocs. Int'l v. Altai, Inc., 982 F.2d 693, 715 (2d Cir. 1992) (quoting NIMMER ON COPYRIGHT § 13.03[F][3] (2019)) (identifying scenes a faire as elements of a work that "follow naturally from the work's theme rather than from the author's creativity").

61   *See supra* note 46 and accompanying text.

62   Bryan L. Frye, *Against Creativity*, 11 N.Y.U. J.L. & LIBERTY 426, 439 (2017) (describing the merger doctrine as a "gloss on the idea-expression dichotomy").

63   Timothy S. Teter, *Merger and the Machines: An Analysis of the Pro-Compatibility Trend in Computer Software Cases*, 45 STAN. L. REV. 1061, 1073–74 (1993) (discussing case law barring copyright protection in bee jewelry due to merger of the expression with the idea).

B.   *Independent Creation Relevance in a World of AI*

With AI, the independent creation defense is set to play a much more meaningful role than in more traditional copyright infringement contexts. This is because multiple parties utilizing AI are more capable of independently creating similar creative works than mere mortals lacking AI assistance. This greater role for the independent creation defense, in turn, can help address some of the concerns of those who worry about the copyrightability of AI outputs.

Of course, as discussed above, AI systems are not yet capable of producing creative outputs entirely on their own, though they may be inching in that direction ever so slowly.[64] But widely available AI tools do provide humans with the means by which to produce significant numbers of creative outputs in relatively short order; often, all it takes is a little input regarding what the human author wishes to create.[65] And in enabling such mass production of creative works, these AI systems enhance the likelihood of independent creation of similar creative works by distinct parties, particularly in cases where parties utilize similar inputs and AI tools.

For instance, recent developments in text generation AI have significantly improved the quality of the AI's creative outputs, in some cases even producing essays and other written texts that would yield "good scores" on standardized tests.[66] In the news industry, large news producers regularly use AI to produce thousands and even millions of stories.[67] The human input necessary for this content creation is often as simple as selecting topics and keywords or providing some sort of writing prompt.[68] Hence, if distinct parties were to utilize the same or similar AI text generation programs and select the same prompts, keywords, or topics as their inputs, in some cases they may very well receive similar creative outputs. Indeed, the likelihood of similar creative outputs may increase as the required human inputs become

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[64]   *See* Sarvasv Kulpati, *Can AI Be Creative?*, MEDIUM (July 27, 2018), https://towardsdatascience.com/can-ai-be-creative-2f84c5c73dca (discussing the state of AI creativity).

[65]   James Vincent, *OpenAI's New Multitalented AI Writes, Translates, and Slanders*, THE VERGE (Feb. 14, 2019, 12:00 PM), https://www.theverge.com/2019/2/14/18224704/ai-machine-learning-language-models-read-write-openai-gpt2 (discussing recent advances in text prediction AI).

[66]   *Id.*

[67]   Nicole Martin, *Did a Robot Write This? How AI Is Impacting Journalism*, FORBES (Feb. 8, 2019, 11:41 AM), https://www.forbes.com/sites/nicolemartin1/2019/02/08/did-a-robot-write-this-how-ai-is-impacting-journalism/#1a22f4af7795.

[68]   *Id.*; *see also* Tristan Greene, *This Terrifying AI Generates Fake Articles from Any News Site*, THENEXTWEB (June 2019), https://thenextweb.com/artificial-intelligence/2019/06/24/this-terrifying-ai-generates-fake-articles-from-any-news-site/ (discussing AI that can mass produce fake news articles); Vincent, *supra* note 65.

ever more simple, particularly in cases where parties utilize the same basic AI systems trained on similar data.[69]

AI tools also exist for producing artwork, including paintings that in some cases have sold for nearly half a million dollars.[70] Humans obviously still remain involved, providing critical input for the artistic direction that the AI tool pursues in rendering the art.[71] But more and more of the artistic rendering is becoming automated, in such a way that humans utilizing such systems can produce thousands of artistic works in a short period of time.[72] When two or more persons utilizing the same or similar AI systems provide the same or similar inputs to these systems, the result may be that some of those thousands of works of art are similar in their respective artistic expression.

Music is another field where AI's ability to create new musical works with a little direction from humans is expanding rapidly.[73] Similar to other areas, AI does not currently have the capability to produce musical works entirely on its own.[74] Yet its ability to help spawn thousands of new musical works in relatively short periods of time has grown, such that companies and musicians increasingly rely on AI tools to help them produce high-quality musical works.[75] And while perhaps most of these new works will differ from those created by others, alike creative outputs are certainly not out of the question as parties utilize similar AI algorithms and inputs in generating their new musical outputs.

This is where the independent creation defense, mostly impotent in previous eras, becomes more capable of providing a defense against claims of copyright infringement. For instance, in the first phase of a typical copyright infringement analysis, when parties usually raise the independent creation defense, courts are more likely to accept the defense in the AI

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69   Kulpati, *supra* note 64.

70   Soo Youn, *Christie's Auctions the First AI-Produced Art, and the Gavel Price Was Staggering*, ABCNEWS (Oct. 25, 2018, 5:31 AM), https://abcnews.go.com/Business/christies-sells-ai-produced-art-half-million-dollars/story?id=58749667.

71   Thomas Graham, *Art Made by AI Is Selling for Thousands – Is It Any Good?*, BBC (Dec. 12, 2018), http://www.bbc.com/culture/story/20181210-art-made-by-ai-is-selling-for-thousands-is-it-any-good.

72   *Id.*

73   Stuart Dredge, *Music Created by Artificial Intelligence Is Better than You Think*, MEDIUM (Feb. 1, 2019), https://medium.com/s/story/music-created-by-artificial-intelligence-is-better-than-you-think-ce73631e2ec5 (discussing the state of the AI music industry).

74   Nir Livneh, *Can AI Create Better Music than Humans?*, FORBES (Nov. 26, 2018, 9:00 AM), https://www.forbes.com/sites/forbestechcouncil/2018/11/26/can-ai-create-better-music-than-humans/#1164b1d11936.

75   Dredge, *supra* note 73.

context than in others.[76] This is because it is more likely, and thus believable, that the AI technologies, unlike their human counterparts, are capable of yielding probatively similar creative expression independent of access to or copying from another source.[77] Indeed, similarity without actual copying becomes all the more likely when considering that these systems are capable of producing thousands and even millions of works within short periods of time based on simple inputs from human beings; at least some of those thousands or millions of outputs are likely to be similar to those of another similarly fertile AI system whose human counterpart utilized related inputs.[78]

Hence, the independent creation defense may help alleviate concerns from some that subjecting AI outputs to copyright will result in a copyright infringement bloodbath, in part because courts are more likely to lend credence to the defense in the AI context than in more traditional ones. Furthermore, creative parties utilizing AI systems may be less prone to sue others who create similar creative content, in part because they will understand that independent creation of similar creative outputs is more likely in the AI context than in others.

One important issue that the independent creation defense does not resolve, however, is when an AI system creates a work that is similar to a work used as an input to the AI system. AI tools for creating new works are typically trained on thousands or even millions of inputs.[79] Those using AI tools to create visual art, for instance, often feed thousands of pieces of art into the AI system, which uses that input to figure out patterns in the input that it can then follow in rendering its own creative works.[80] Hence, it may not be altogether surprising if that AI tool renders some works with similar creative expression to that found in many of its inputs; the AI system's outputs are, after all, in some sense derived from its inputs. Consequently, it would be difficult to successfully argue an independent creation defense when an AI output mimics the creative elements of one or many of its inputs,

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[76]   Mark A. Lemley, *Our Bizarre System for Proving Copyright Infringement*, 57 J. COPYRIGHT SOC'Y U.S.A. 719, 719–20 (2010) (discussing this first prong).

[77]   *Id.*

[78]   *See, e.g.*, Tom Simonite, *We Made Our Own Artificial Intelligence Art, and So Can You*, WIRED (Nov. 20, 2019, 6:00 AM), https://www.wired.com/story/we-made-artificial-intelligence-art-so-can-you/ (discussing one person's experience in using open source AI tools to create visual art that in resembled other AI-assisted works that recently sold at an auction for nearly half a million dollars).

[79]   Gregory Barber, *AI Needs Your Data–And You Should Get Paid for It*, WIRED (Aug. 8, 2019, 7:00 AM), https://www.wired.com/story/ai-needs-data-you-should-get-paid/ ("AI algorithms can require thousands or even millions of data points.").

[80]   Simonite, *supra* note 78.

because access to the mimicked works is certain and the works' similarities are in some sense purposeful.[81]

In such scenarios, other copyright doctrines would need to step in to limit copyright, if at all. The idea-expression, scenes a faire, and merger doctrines, as discussed above, may excuse many similarities between inputs and outputs of AI systems, simply because those similarities are not copyrightable expression. Furthermore, as discussed in greater detail below in Part III, the fair use doctrine is likely to play a role in allowing for certain uses of training data. Hence, while the independent creation defense is set to play a bigger role in mediating copyright conflicts arising between multiple parties that use AI to produce creative outputs, it naturally falls short of settling all copyright issues arising in the context of AI systems more generally.

Indeed, despite the independent creation defense helping alleviate some concerns, another outstanding issue is that subjecting millions of AI outputs to copyright still clutters the field with copyright landmines. For instance, as parties increasingly rely on AI systems to help produce thousands and even millions of creative outputs, the creative landscape simply becomes ever more difficult to navigate if those outputs are subject to copyright, with or without a viable independent creation defense. After all, parties may wish to use some of those outputs rather than create their own, but may often face difficulties in getting permission to do so.[82] Independent creation thus provides little reassurance in cases where parties wish to make use of some of the millions of the copyrighted AI outputs, simply because those uses would not be independently derived.

But the growing availability of AI systems can provide some reassurance on this front as well. For instance, the availability of AI systems capable of mass-producing thousands and even millions of creative outputs in a relatively short timeframe means that third parties wishing to avoid already copyrighted creative outputs have an easier time working around those outputs in producing their own. Thus, though subjecting AI outputs to copyright means that the creative landscape may become increasingly cluttered with rights clearance issues, one means by which authors can navigate that landscape is to simply further clutter it with their own AI-assisted outputs. Of course, this still does nothing to address the concern of

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[81]   Latman, *supra* note 58, at 1206–07 (discussing the first prong of the copyright infringement analysis as assessing whether a party actually copied material from another based on whether the party had access to the material and the level of similarity between the two works).

[82]   *See, e.g.*, Lydia Pallas Loren, *Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permissions Systems*, 5 J. INTELL. PROP. L. 1, 5–6 (1997) (discussing some of the possible causes of market failure in copyright markets).

being able to use specific copyrighted AI outputs, and the next Part looks into that issue in greater detail.

In sum, if parties wish to use an output that shares some similarities with another AI output, they may be able to rely on the independent creation defense if those similarities arise due to the AI system's inner workings rather than actual copying. But if they wish to avoid that headache altogether, creative parties can simply utilize widely available AI systems to come up with an option that is distinct from other copyrighted AI outputs. Thus, while subjecting AI outputs to copyright still presents some difficulties, as discussed in greater detail below, the independent creation defense, as well as the availability of AI systems, provides creative parties with a number of ways by which to avoid copyright conflicts.

IV. REMAINING CONCERNS

As alluded to above, one significant copyright issue that the independent creation defense and AI more generally fail to fully address is that parties may wish to use particular AI outputs in their creative efforts, and copyright may stand in the way of those wishes. For instance, though AI systems can generate thousands and even millions of creative outputs in a relatively short period of time, the reality is that some AI outputs will be better than others.[83] Hence, a party wishing to use some AI output would not be able to rely on the independent creation defense to the extent that they set out to replicate it, even if they were to rely on an AI tool in that replication effort. They may be able to rely on the idea-expression, scenes a faire, or merger doctrines to the extent that what they wish to copy is not copyrightable expression. Yet in many cases, it is precisely the expression that the party may wish to replicate. Furthermore, because the particular AI output is the desired result, it makes no sense to say that AI systems would allow the party to come up with their own distinct output, because that distinct output is not what the party wants.

This does indeed present a concern. But it is certainly not one that is unique to AI outputs and their copyrightability. It is certainly the case that if we were to withhold copyright from AI outputs, third parties could more easily use them in their own creative efforts. But then, the debate again resurfaces as to whether parties, absent copyright, have proper incentives to use AI to produce creative outputs in the first place.[84] Otherwise, the copyright situation seems similar to other types of scenarios involving

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[83]   Kelsey Piper, *A Poetry-Writing AI Has Just Been Unveiled. It's . . . Pretty Good*, VOX (May 15, 2019, 3:08 PM), https://www.vox.com/2019/5/15/18623134/openai-language-ai-gpt2-poetry-try-it (discussing the outputs of a text generation AI, with some being quite sophisticated and others being quite bad).

[84]   *See supra* notes 1–4 and accompanying text.

creative works that others wish to use. The magnitude of outputs that AI enables may seem to make a difference, yet the reality is that the sheer number of copyrighted AI outputs makes little difference in the final analysis. People will wish to make use of some of those outputs and not others. For those copyrighted AI outputs that they wish to make use of, typical copyright questions will arise.

Arguably the most important copyright question in this context is whether use of the AI output in one's own creative efforts constitutes a fair use of that output. Fair use is arguably copyright law's most important defense to claims of copyright infringement.[85] It primarily consists of a four-factor statutory test that courts use to determine whether disallowing the use would "stifle the very creativity [copyright] law is designed to foster."[86] Hence, courts often find uses to be a fair use in cases where they deem, overall, that the use promotes rather than inhibits creative efforts.[87] Fair use, for instance, is a key to allowing parties to create parodies, critiques, commentaries, news reporting, and other forms of creative efforts that utilize copyrighted works in them.[88] It also enables a number of educational and technological uses of copyrighted works that would otherwise constitute copyright infringement.[89]

While the fact that AI was used to help create some creative output may not require any new copyright doctrines or limitations, that reality may affect our analyses under existing ones, including the fair use doctrine. For instance, factor two of fair use's four-factor test requires courts to look into the nature of the copyrighted work, the idea being that more creative works deserve greater copyright protections (and thus fewer fair use allowances), while less creative works deserve fewer protections (and thus more fair use allowances).[90] This is so, the thinking goes, because more creative works are precisely the type of work that copyright law is meant to encourage, while works consisting mostly of facts, ideas, or other less creative material are further astray from copyright's protective embrace.[91]

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85   MARSHALL A. LEAFFER, UNDERSTANDING COPYRIGHT LAW 495 (6th ed. 2014) (indicating that fair use is "by far the most important defense to an action for copyright infringement").

86   Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577 (1994) (quoting Stewart v. Abend, 495 U.S. 207, 236 (1990)).

87   Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors*, 82 COLUM. L. REV. 1600 (1982) (discussing the fair use doctrine as a solution to various types of market failure).

88   Clark D. Asay, *Transformative Use in Software*, 70 STAN. L. REV. ONLINE 9 (2017) (discussing some of these uses).

89   *Id.*

90   *Campbell*, 510 U.S. at 586 (opining that "[t]his factor calls for recognition that some works are closer to the core of intended copyright protection than others.").

91   *Id.*

Traditionally, the second factor of the fair use test has played little to no role in determining the outcomes of fair use cases.[92] Courts typically include it in their fair use analyses because it is listed in the Copyright Act as one of the statutory factors.[93] But courts may as well omit it in the vast majority of cases, as it seems to have little influence on how courts actually decide fair use cases.[94]

But in the AI context, the second factor would seem to deserve a greater role. This may be so because although many AI outputs are overall creative, the human input involved in producing the work may have been relatively minimal (such as providing a keyword or brief prompt).[95] In other words, much of the creativity found in the AI output may owe more to the AI's internal workings than human efforts, in which case the limited human creativity involved in generating the output means that the second factor pushes in favor of a finding of fair use. Of course, this will not always be the case—the simple fact that AI was used in a creative effort does not automatically mean that the human author did not employ significant amounts of creativity in creating the output. In many cases, in fact, an AI output's creative elements may be largely dependent on the efforts of a human counterpart.[96] But at least in some cases, when human input is minimal, this factor would seem to push in favor of a finding of fair use.

Some may counter this point by arguing that creating the AI system itself involves significant amounts of creativity. Hence, the creative output may actually reflect significant human creativity when taking into account the creativity involved in structuring the AI system. In some circumstances, this may be true; an author who structures an AI system in a specific way so as to achieve a particular artistic result has a greater claim on copyright protections than others. In such cases, the second factor may actually push against a finding of fair use. But in many other cases, where humans neither

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[92] *See, e.g.*, Clark D. Asay et al., *Is Transformative Use Eating the World?*, 61 B.C. L. Rev. 1, 39 (2020) (finding that the second factor and its outcome are very rarely associated with the ultimate outcome of the overall fair use test). *But see* Barton Beebe, *An Empirical Study of U.S. Copyright Fair Use Opinions, 1978–2005*, 156 U. Pa. L. Rev. 549, 563–64 (2008) (finding that certain subfactors of the factor two analysis may have some weight in influencing overall fair use outcomes).

[93] 17 U.S.C. § 107 (2019) (listing the fair use factors as a non-exhaustive list of things courts may consider when assessing whether a use is fair).

[94] Asay, *supra* note 88, at 9–10; *see, e.g.*, Warren Publ'g Co. v. Spurlock, 645 F. Supp. 2d 402, 415 (E.D. Pa. 2009) (finding that though factor two disfavored fair use, its impact in the overall fair use calculus was limited because of other, more important considerations).

[95] This idea, in some respects, syncs up nicely with Bruce Boyden's contention that AI-generated works should not be subject to copyright to the extent that the creativity found in these works cannot be directly traced to a human author's creative purposes. *See* Boyden, *supra* note 4, at 379.

[96] Eleanor Lawrie, *Could a Computer Ever Create Better Art than a Human?*, BBC (Apr. 23, 2019), https://www.bbc.com/news/business-47700701 ("So rather than letting AI take complete control, results seem to be far more fruitful when human artists work hand-in-hand with machines.").

have much involvement in creating the AI system nor are required to supply the system with much artistic direction, those humans have a lesser claim on copyright protections in whatever creative outputs the system spits out. In such scenarios, the second factor of the fair use test would push in favor of allowing reuses of their AI-assisted outputs.

Courts may also assess the third factor of the fair use test differently when AI tools were involved in a work's creation. The third factor looks to the "amount and substantiality of the portion [of the copyrighted work] used."[97] When a second comer uses a significant amount of the copyrighted work in their subsequent work, that typically counts against a finding of fair use.[98] Furthermore, even small amounts used may count against fair use when the second comer uses the "heart" of the copyrighted work in their own creative efforts.[99]

Similar to the second factor, when an author contributed little creativity to the creation of a work, a follow-on creator utilizing that work arguably has not taken a significant amount of the human author's creativity, in which case the third factor may push in favor of a fair use finding. In many cases, of course, it will be difficult to determine where a human author's creativity begins and ends; in some instances, the human author's contributed creativity will be so intertwined with the end product that parsing between the two will become an impossible task. But in others, it may be quite clear that a human author literally only contributed a word or key phrase to the work's creation, and the AI tool did the rest. In such cases, when follow-on creators make use of the AI's creative output in their own creative efforts, it becomes more difficult to argue that the follow-on creators "helped themselves overmuch" to the first human author's creativity.[100] And when that is the case, the third factor should push in favor of a fair use finding.

AI's role in yielding creative outputs may also figure into a court's analysis of fair use's fourth factor, "the effect of the use upon the potential market for or value" of the work.[101] Under this factor, courts assess whether a party's use of another party's copyrighted work harms the market or the potential market for the work.[102] For instance, if the type of use under consideration were to become widespread, would the economic prospects of

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97   17 U.S.C. § 107(3) (2019).

98   *See generally* R. Anthony Reese, *How Much Is Too Much?: Campbell and the Third Fair Use Factor*, 90 WASH. L. REV. 755 (2015).

99   *Id.*

100   Peter Letterese & Assocs. v. World Inst. of Scientology Enters. Int'l, 533 F.3d 1287, 1314 (11th Cir. 2008).

101   17 U.S.C. § 107(4) (2019).

102   *See generally* David Fagundes, *Market Harm, Market Help, and Fair Use*, 17 STAN. TECH. L. REV. 359 (2014) (discussing the fourth fair use factor's history).

the copyright owner suffer significantly?[103] In essence, this factor looks to whether the contemplated use acts as a market substitute for the original copyrighted work.[104] Often, if the use is for a commercial purpose, the court will presume market harm to the original.[105]

The fact that a party used AI to create the work may bear on whether another party's use of that work harms the first party's market for it. For instance, if the work does not really have much of a market because others can, and so readily do, create their own works through the use of AI tools, this may make allowing use of the work more tolerable. Of course, if a dispute arises over some party's use of a copyrighted AI output, that dispute suggests at least some market for the work exists, in spite of the reality that others may readily employ AI to create their own distinct creative outputs. Yet that may still bear on the factor four discussion, because we may deem that a market of one (or a few) is simply not a market worth protecting. Harking back to factors two and three, this may be particularly true if an author's creative efforts in bringing about an AI output were minimal at best.

This analysis of fair use principles in the AI context bears a strong resemblance to scholarship arguing that AI outputs should not be subject to copyright when the AI, rather than the human author, is responsible for the creativity found in the output.[106] One might reasonably argue that denying copyright protections in the first place is a much sounder approach than forcing parties to go through the costly court system to determine who can do what. Indeed, complaints about the unpredictability of fair use outcomes have sounded for some time, though others have cast significant doubts on this alleged unpredictability.[107] But the point remains that litigation is expensive, and parties not knowing what their rights are, *ex ante*, infuses a significant amount of uncertainty into the marketplace, meaning that using AI outputs becomes that much more difficult.

But in the AI context, the fair use defense, as opposed to denying copyright protections entirely, has several things in its favor. First, its four-factor test for determining whether a use is permissible allows for greater nuance in assessing particular uses of AI outputs. AI varies widely, with different systems requiring different amounts of human involvement for creative outputs to come about. Humans can also alter AI systems to suit their particular creative goals. Hence, adopting a one-size-fits-all-approach to AI

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103 Jeanne C. Fromer, *Market Effects Bearing on Fair Use*, 90 Wash. L. Rev. 615 (2015) (discussing fair use's factor four).

104 *Id.*

105 Beebe, *supra* note 92, at 601 (discussing this presumption).

106 *See, e.g.*, Boyden, *supra* note 4.

107 *See* Matthew Sag, *Predicting Fair Use*, 73 Ohio St. L.J. 47, 48–49, 51 (2012); Pamela Samuelson, *Unbundling Fair Uses*, 77 Fordham L. Rev. 2537, 2537, 2540–41 (2009).

outputs—by denying them all copyright protections—makes little sense when the systems and their capacities vary so widely. Fair use, with its multiple factors to consider, provides a better tool for determining on a case-by-case basis whether reuse of a particular output should be permitted.

Second, though whether a particular use counts as fair will always remain indeterminate until a court says so, developing fair use norms can help settle many fair use questions, without parties having to resort to a court. For instance, over time certain practices can become widely accepted as fair uses, such that people begin to regularly undertake those uses with very little fair use litigation following in their wake. Indeed, this has happened with respect to more traditional types of uses. Hence, as AI and its creative capacities become more entrenched in the marketplace, it is likely that fair use cases and discussions will follow. And as they follow, greater clarity will emerge about which types of uses count as fair use. As that clarity emerges, fair use will thus help allow for uses of AI outputs where low levels of human creativity were involved, while barring uses where higher levels of human creativity are manifest.[108]

V.   CONCLUSION

Scholars have long squabbled over the copyrightability of AI-generated output. This issue is becoming all the more important as AI gets closer and closer to autonomously generating its own creative output. My point in this Essay is not that these debates are without merit, but that we have several important tools at our disposal to combat some of the most worrisome issues relating to the copyright status of AI outputs.

One is that a long-standing copyright limitation—independent creation—may actually begin to live up to its hype. While this defense has had some relevance in the past, it has mostly lain dormant, because independent creation of similar creative expression in most cases is simply impossible. In the AI context, the likelihood of similar creative outputs increases. Hence, those that worry that subjecting AI outputs to copyright will inhibit creative activity can take some comfort in knowing that the

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[108]   Another AI-related fair use question concerns whether using copyrighted works as inputs to AI systems constitutes copyright infringement or is, instead, a fair use. As alluded to throughout, AI systems depend on human input, including at times copyrighted works, to yield their creative outputs. AI systems are also typically trained on massive datasets, and some portions of those datasets are often subject to copyright protections. If copyright were to apply to these types of activities without a fair use defense, creating and operating many AI systems would become nearly impossible. Others have persuasively argued in favor of allowing these types of uses for data mining and AI training purposes. *See* Matthew Sag, *The New Legal Landscape for Text Mining and Machine Learning*, 66 J. COPYRIGHT SOC'Y U.S.A. 1, 3, 23, 64 (2019). I will not review those arguments here other than to add my general support in favor of their arguments.

independent creation defense may frequently shield purported infringers from copyright trouble.

Furthermore, the widespread availability of AI tools for assisting creative parties enhances their ability to circumvent copyrighted works in creating their own distinct output. This does not alleviate the concern that some parties may wish to use a particular copyrighted AI output in their own creative efforts, rather than independently come up with their own. Yet the fair use limitation remains a possible solution to such holdup problems, and in many cases the involvement of AI in generating a particular output should push the scales in favor of fair use.