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Fair's Fair: How Public Benefit Considerations in the Fair Use Doctrine Can Patch Bias in Artificial Intelligence Systems

Patrick K. Lin*

"If every unauthorized use of copyrighted works were infringement, many socially valuable activities would be impaired."[1]

The impact of artificial intelligence (AI) expands relentlessly despite well-documented examples of bias in AI systems, from facial recognition failing to differentiate between darker-skinned faces to hiring tools discriminating against female candidates. These biases can be introduced to AI systems in a variety of ways; however, a major source of bias is found in training datasets, the collection of images, text, audio, or information used to build and train AI systems.

This Article first grapples with the pressure copyright law exerts on AI developers and researchers to use biased training data to build algorithms, focusing on the potential risk of copyright infringement. Second, it examines how the fair use doctrine, particularly its public benefit consideration, can be applied to AI systems and begin to address the algorithmic bias problem afflicting many of today's systems. Ultimately, this Article concludes that the social utility and human rights benefits of diversifying AI training data justifies the fair use of copyrighted works.

INTRODUCTION

In 2015, Google Photos tagged two Black people as gorillas.[2] A year later, Microsoft's AI chatbot, Tay, spent just one day learning from interactions on Twitter and began spouting antisemitic messages.[3] Joy Buolamwini and Timnit Gebru created the Pilot Parliaments Benchmark dataset in 2018 in order to test the accuracy of gender classification artificial intelligence (AI) systems developed by IBM, Microsoft, and Face++ and empirically demonstrated disproportionately high error rates for females with darker skin in the dataset.[4] That same year, Amazon's

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* Patrick K. Lin, Author of *Machine See, Machine Do: How Technology Mirrors Bias in Our Criminal Justice System*; J.D., Brooklyn Law School (2022); B.A., New York University (2017). I wish to thank Professor Samuel Murumba for his invaluable guidance, feedback, and insight. I am also grateful for Carly J. Goldberg for her support, enthusiasm, and love. All views expressed are my own.

1 Rebecca Tushnet, *Copy This Essay: How Fair Use Doctrine Harms Free Speech and How Copying Serves It*, 114 YALE L.J. 535, 544 (2004).

2 Alistair Barr, *Google Mistakenly Tags Black People as 'Gorillas,' Showing Limits of Algorithms*, WALL ST. J. (July 1, 2015), https://www.wsj.com/articles/BL-DGB-42522.

3 James Vincent, *Twitter Taught Microsoft's AI Chatbot to Be a Racist Asshole in Less Than a Day*, THE VERGE (Mar. 24, 2016), https://www.theverge.com/2016/3/24/11297050/tay-microsoft-chatbot-racist.

4 Joy Buolamwini & Timnit Gebru, *Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification*, 81 PROC. MACH. LEARNING RSCH. 1, 8 (2018), http://proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf (finding that facial analysis algorithms

machine-learning specialists found that their internal recruiting and hiring tool penalized female candidates.[5] A few years later, it was discovered that LinkedIn's recommendation algorithms referred more men than women for open roles.[6] Then, in September 2021, repeating Google's mistake, Facebook's AI-generated video prompts included a "primates" label on a video of Black men.[7]

These incidents are examples of bias in AI algorithms. From a design and development standpoint, the problem starts with the way these algorithms are trained.[8] AI learns to identify patterns as it is fed training data, which can include images, text from books and social media posts, videos, and any other types of content.[9] Training data often contains human biases, resulting in an AI that learns those same biases.[10] By feeding AI systems racist, sexist, or homophobic data, researchers, developers, and companies are training these systems "to hold the same prejudices as humans."[11] To adapt a computer science adage: "bias in, bias out."[12] However, AI's algorithmic bias problem is exacerbated by an unlikely and often overlooked factor: copyright law.

In the United States, much of the data used to train AI algorithms is protected by copyright restrictions.[13] Furthermore, courts have yet to weigh in on whether training an AI amounts to copyright infringement.[14] In an effort to mitigate litigation risk, major AI companies frequently keep their training datasets a secret, preventing potential biases from being identified and addressed while stifling competition.[15] The current state of U.S. copyright law also pressures AI researchers and developers alike to resort "to low-hanging, biased databases to train their algorithms."[16]

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misclassified darker female faces 20.8 to 34.7 percent of the time, while correctly identifying lighter male faces about 99 percent of the time).

5 Jeffrey Dastin, *Amazon Scraps Secret AI Recruiting Tool That Showed Bias Against Women*, REUTERS (Oct 10, 2018, 7:04 PM), https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G.

6 Sheridan Wall & Hilke Schellmann, *LinkedIn's Job-Matching AI Was Biased. The Company's Solution? More AI.*, MIT TECH. REV. (June 23, 2021), https://www.technologyreview.com/2021/06/23/1026825/linkedin-ai-bias-ziprecruiter-monster-artificial-intelligence/.

7 Ryan Mac, *Facebook Apologizes After A.I. Puts 'Primates' Label on Video of Black Men*, N.Y. TIMES (Sept. 3, 2021), https://www.nytimes.com/2021/09/03/technology/facebook-ai-race-primates.html.

8 Louise Matsakis, *Copyright Law Makes Artificial Intelligence Bias Worse*, VICE (Oct. 31, 2017), https://www.vice.com/en/article/59ydmx/copyright-law-artificial-intelligence-bias.

9 *See id.*

10 *Id.*

11 *Id.*

12 *See generally* Sandra Mayson, *Bias In, Bias Out*, 128 YALE L.J. 2218 (2019) (detailing strategies for addressing the disparate impact problems that arise from algorithmic bias).

13 Matsakis, *supra* note 8.

14 *Id.*

15 *Id.*

16 *Id.*; *see* Amanda Levendowski, *How Copyright Law Can Fix Artificial Intelligence's Implicit Bias Problem*, 93 WASH. L. REV. 579, 596 (2018) ("Thus, the rules of copyright law can be understood as causing two kinds of friction: competition and access. From a competition perspective, copyright law can limit implementation of bias mitigation techniques on existing AI systems and constrain competition to create less biased

The purpose of the fair use doctrine is to promote freedom of expression by allowing the unlicensed use of copyright-protected works in certain circumstances.[17] More specifically, Section 107 of the Copyright Act outlines the statutory framework for making fair use determinations and identifying fair use activities, including criticism, commentary, news reporting, teaching, and research.[18]

This Article argues that the social utility and human rights benefits of diversifying AI training data justifies the fair use of copyrighted works. AI developers rely on biased datasets partly because of their own biases, but also because of potential risks of copyright infringement.[19] Expanding these datasets, particularly with diverse, copyrighted materials that are likely to reduce bias, is not only desirable, but legal as fair use. The use of copyrighted works as training data is a transformative use under the fair use doctrine and can selectively diversify the inputs to these systems; in turn, reducing biased outputs and improving user experience, fairness, and safety in AI systems.

Part I provides a brief background on algorithmic bias and how AI systems are developed, particularly with respect to their reliance on training datasets, which are the copyrighted works at issue. Part II underscores the ways copyright law pressures AI developers of all sizes to use biased training data, focusing on copyright protections such as the Digital Millennium Copyright Act and public domain works. Part III discusses the benefits of the fair use doctrine, differentiates it from the fair dealing defense, and explores recent case law that explicitly considers the public benefit of a copyright use when arriving to a fair use conclusion. Part IV establishes how AI training data fits within the fair use framework, primarily relying on the *Authors Guild* line of cases and extrapolating how future cases might absolve AI of copyright infringement.

Since its inception, copyright law has been tasked with untangling the omnipresent conflict between notions of access, competition, and fairness.[20] Given the widespread biases identified in AI systems that pervade our day-to-day routines, copyright law and the fair use doctrine are presented with a rare and compelling opportunity to remedy bias and discrimination on a grand scale.

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systems. And from an access perspective, copyright law can privilege the use of certain works over others, inadvertently encouraging AI creators to use easily available, legally low-risk works as training data, even when those data are demonstrably biased.").

17 *More Information on Fair Use*, U.S. COPYRIGHT OFF., https://www.copyright.gov/fair-use/more-info.html (last visited Oct. 16, 2021).

18 *Id.*

19 *See* Levendowski, *supra* note 16, at 597 (noting that researchers and AI developers often turn to Public Domain works as well as works licensed under Creative Commons to avoid copyright infringement; however, these data sources are typically outdated or have bias problems of their own).

20 *See id.* at 619.

I. AI DEVELOPMENT & THE OBSTACLE OF COPYRIGHT LAW

AI may be one of the most misunderstood and mischaracterized concepts of our time.[21] Part of the problem is the lack of a standardized definition, especially in academia and research.[22] The origin of the concept of AI is generally attributed to Alan Turing, who speculated in 1950 about "thinking machines" that could solve problems at the level of a human being.[23] A few years later, John McCarthy coined the term "artificial intelligence" to refer machines that could think autonomously.[24] Since the 1950s, scientists have disagreed on what constitutes "thinking" and "intelligence."[25]

Today, what we think of as "AI" tends to be machine learning, a more advanced schema and application of AI that enables computer programs to automatically improve as they take in more data and information.[26] When given massive troves of data and some time, most AI systems can be trained to learn how to recognize patterns, identify outliers, or make predictions.[27] Well-designed AI systems update their analyses in response to new data.[28] At present, the main purpose of AI is automation, resulting in otherwise time-intensive and costly processes being performed automatically, swiftly, and without human intervention.[29] The resulting efficiency gains and cost savings quickly made their way to the public sector, where the technology has been used for a variety of public policy purposes[30] from innocuous applications such as the AI the United States Postal Service developed in the late 1990s to recognize handwriting on envelopes to

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21 Darrell M. West, *What is Artificial Intelligence?*, BROOKINGS (Oct. 4, 2018), https://www.brookings.edu/research/what-is-artificial-intelligence/.

22 *Id.*

23 Noel Sharkey, *Alan Turing: The Experiments That Shaped Artificial Intelligence*, BBC NEWS (June 21, 2012), https://www.bbc.com/news/technology-18475646.

24 Andrew Myers, *Stanford's John McCarty, Seminal Figure of Artificial Intelligence is Dead at 84*, Stanford Eng'g (Oct. 25, 2011), https://engineering.stanford.edu/news/stanfords-john-mccarthy-seminal-figure-artificial-intelligence-dead-84.

25 West, *supra* note 21.

26 Karen Hao, *What is Machine Learning?*, MIT TECH. REV. (Nov. 17, 2018), https://www.technologyreview.com/2018/11/17/103781/what-is-machine-learning-we-drew-you-another-flowchart/.

27 Karen Hao, *What is AI? We Drew You a Flowchart to Work It Out.*, MIT TECH. REV. (Nov. 10, 2018), https://www.technologyreview.com/2018/11/10/139137/is-this-ai-we-drew-you-a-flowchart-to-work-it-out/.

28 *Id.*

29 Rachel Kraus, *What is an Algorithm, Anyway?*, MASHABLE (Aug. 30, 2020), https://mashable.com/article/what-is-an-algorithm ("Algorithms are doing for mental work what the Industrial Revolution did for manual work . . . . Algorithms are the automation of intelligence.").

30 Emma Martinho-Truswell, *How AI Could Help the Public Sector*, HARV. BUS. REV. (Jan. 29, 2018), https://hbr.org/2018/01/how-ai-could-help-the-public-sector.

automatically route letters[31] to more controversial and flawed ones like using historical crime data to send individuals to jail.[32]

The quality of an AI system's training data determines its accuracy.[33] Biased training data will necessarily "result in skewed datasets that fuel both false positives and false negatives."[34] For example, a facial recognition system that relies on mugshots from a "gang database" will have an overrepresentation of Black and Latinx faces.[35] Similarly, an AI hiring tool that defines its ideal candidate based on the top-performing employees in a workforce that is predominantly white and male will simply recruit applicants that reinforce the homogeneity of that workforce.[36]

As AI systems are increasingly rolled out into high-stake domains, the need for more diverse and properly representative training data is at an all-time high. Consider the Taiwanese engineering student who was unable to renew his passport online because the AI system rejected his photo by incorrectly determining his eyes were closed.[37] Tenant screening algorithms are also getting it wrong, incorrectly labelling applicants as criminals and rejecting their applications.[38] Robert Julian-Borchak Williams, who was likely the first known account of an American being wrongfully arrested based on a facial recognition system's incorrect match, is yet another example.[39] Errors like these are not merely inconvenient or frustrating. They can be dangerous.

II. HOW COPYRIGHT LAW INCENTIVIZES THE DEVELOPMENT OF BIASED AI SYSTEMS

The Copyright Act of 1976 defines "copies" as "material objects . . . in which a work is fixed by any method now known or later developed, and from which the

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31 HILA MEHR, ARTIFICIAL INTELLIGENCE FOR CITIZEN SERVICES AND GOVERNMENT 5 (2017), https://ash.harvard.edu/files/ash/files/artificial_intelligence_for_citizen_services.pdf.

32 Karen Hao, *AI Is Sending People to Jail—and Getting It Wrong*, MIT TECH. REV. (Jan. 21, 2019), https://www.technologyreview.com/2019/01/21/137783/algorithms-criminal-justice-ai/.

33 Buolamwini & Gebru, *supra* note 4, at 1 ("It has recently been shown that algorithms trained with biased data have resulted in algorithmic discrimination.").

34 Levendowski, *supra* note 16, at 592.

35 Jeff Coltin, *Why Everyone is Suddenly Talking About the NYPD Gang Database*, CITY & STATE N.Y. (June 13, 2018), https://www.cityandstateny.com/policy/2018/06/why-everyone-is-suddenly-talking-about-the-nypd-gang-database/178384/. Police departments' "gang databases" typically have poorly defined inclusion criteria and a history of racial bias. PATRICK K. LIN, MACHINE SEE, MACHINE DO: HOW TECHNOLOGY MIRRORS BIAS IN OUR CRIMINAL JUSTICE SYSTEM 99 (2021) ("NYPD officials have even acknowledged that as many as 95 percent of the people in its gang database are Black or Latinx.").

36 Sarah K. White, *AI in Hiring Might Do More Harm Than Good*, CIO (Sept. 17, 2021), https://www.cio.com/article/189212/ai-in-hiring-might-do-more-harm-than-good.html.

37 Selina Cheng, *An Algorithm Rejected an Asian Man's Passport Photo for Having "Closed Eyes"*, QUARTZ (Dec. 7, 2016), https://qz.com/857122/an-algorithm-rejected-an-asian-mans-passport-photo-for-having-closed-eyes/.

38 Lauren Kirchner & Matthew Goldstein, *Accessed Denied: Faulty Automated Background Checks Freeze out Renters*, THE MARKUP (May 28, 2020), https://themarkup.org/locked-out/2020/05/28/access-denied-faulty-automated-background-checks-freeze-out-renters.

39 Kashmir Hill, *Wrongfully Accused by an Algorithm*, N.Y. TIMES (June 24, 2020), https://www.nytimes.com/2020/06/24/technology/facial-recognition-arrest.html.

work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[40] At present, no court has weighed in on whether a copy made for the purpose of training an AI is a "copy" under the Copyright Act, not to mention whether this copy would be considered an infringement.[41] Today, many AI processes rely on the intake of massive amounts of data to train their underlying systems, which improves their accuracy and ability to recognize patterns.[42] Without clear guidance from courts, AI researchers and developers are left to navigate and test the boundaries of copyright law. The current state of copyright law hampers AI accountability and transparency.[43] In addition, many AI creators turn to "biased, low-friction data,"[44] like public domain works or works licensed under Creative Commons.[45]

Due to the immense resources available to the biggest players in AI development—Apple, Facebook, Google, IBM, and Microsoft—and the hefty fines that come with copyright infringement claims, copyright law effectively encourages companies to build "black box" systems, which "provide outputs without disclosing how those outputs were determined."[46] Congress enacted the Digital Millennium Copyright Act (DMCA) in 1998,[47] which "created liability for circumventing . . . a technological measure that 'effectively controls access to work' protected under copyright law."[48] The DMCA essentially propped up a legal barrier for AI researchers to evaluate faulty code, identify vulnerabilities, and test AI systems for bias.[49] At the moment, limited reverse engineering, encryption research, and security testing is permitted.[50]

Here, copyright law creates two layers of friction. First, big tech companies have an incentive to keep their training datasets and AI development processes secret because they not only avoid public scrutiny, but they also minimize liability risk.[51] Second, researchers, journalists, and data activists are disincentivized from looking under the hood since the cost of infringement can run as high as $150,000 for each infringing copy.[52] The two layers of friction that copyright law creates are: (1) an incentive for big tech companies to keep the training data and development

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40 17 U.S.C. § 101 (2012).

41 Levendowski, *supra* note 16, at 595.

42 *See supra* text accompanying notes 21–39.

43 *See* Levendowski, *supra* note 16, at 597–610.

44 This is a category of works that are "easily available" yet "legally low-risk," including both public domain works and works licensed under Creative Commons. *Id.* at 610–19.

45 *About CC Licenses*, CREATIVE COMMONS (2019), https://creativecommons.org/about/cclicenses/.

46 *Id.* at 599. *See generally* FRANK PASQUALE, THE BLACK BOX SOCIETY: ALGORITHMS THAT CONTROL MONEY AND INFORMATION (2015).

47 Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified at 17 U.S.C. §§ 1201–1205, 512, 1301–1332; 28 U.S.C. § 4001).

48 17 U.S.C. §§ 512, 1201.

49 Levendowski, *supra* note 16, at 604.

50 17 U.S.C. § 1201(f); Levendowski, *supra* note 16, at 604.

51 Levendowski, *supra* note 16, at 599.

52 17 U.S.C. § 504(c)(2). Considering how many individual datapoints it takes to train an AI system, the number of potential infringements—and the cost—rises quickly. *See supra* text accompanying notes 21–39.

processes of their AI systems secret, and (2) a disincentive for researchers, journalists, and activists from scrutinizing biased training data.[53]

Then, to avoid the risk of copyright infringement, AI developers look to public domain works.[54] The "'public domain' refers to creative materials that are not protected by intellectual property laws," including copyright law.[55] Therefore, the public owns works in the public domain instead of an individual author or artist.[56] Anyone can use or copy a public domain work without obtaining permission; however, no one individual can ever own it.[57]

Although public domain works are readily accessible and often already in machine-readable formats online, much of these works were published before 1923, when the "'literary canon' was wealthier, whiter, and more Western'" than it is today.[58] Thus, an AI system trained exclusively on public domain works would reflect the biases of that time.[59] In particular, Black, LGBTQ, and women's voices were generally excluded from works in that era.[60]

III. FAIR USE FOR AI FAIRNESS: OPERATIONALIZING THE DOCTRINE

Broadly, fair use is any copying of copyright-protected material for a limited and "transformative" purpose, such as commentary, education, or parody.[61] The fair use doctrine acts as a limit to copyright, intended to balance the interests of the copyright holder with the public interest, particularly by permitting the legal, unlicensed use of copyrighted material in another author's work under a four-factor test.[62] In determining whether a particular use is a fair use, courts weigh the following factors: "(1) the purpose and character of the use . . . ; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used . . . ; and (4) the effect of . . . the use upon the market for or value of the copyrighted work."[63]

The fair use doctrine provides a flexible framework for balancing the interests of copyright owners against the interests of future creators and competitors, as well as the interests of the public.[64] The four factors are not

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53 Levendowski, *supra* note 16, at 599, 604.

54 *Id.*at 616.

55 Richard Stim, *Welcome to the Public Domain*, STAN. LIBR.: COPYRIGHT AND FAIR USE, https://fairuse.stanford.edu/overview/public-domain/welcome/ (last visited Dec. 7, 2021).

56 *Id.*

57 *Id.*

58 Levendowski, *supra* note 16, at 615.

59 Matsakis, *supra* note 8.

60 *Id.*

61 *See generally* Neil Weinstock Netanel, *Making Sense of Fair Use*, 15 LEWIS & CLARK L. REV. 715 (2011) (providing an overview of fair uses under United States copyright law, such as commentary, search engines, criticism, parody, news reporting, research, and scholarship). In fact, approximately ninety-five percent of use cases would likely succeed if there was a finding of transformative use. *See* Barton Beebe, *An Empirical Study of U.S. Copyright Fair Use Opinions, 1978–2005,* 156 U. PA. L. REV. 549, 606 (2008).

62 *See* Folsom v. Marsh, 9 F. Cas. 342, 344 (C.C.D. Mass. 1841) (establishing the four-factor fair use analysis).

63 Copyright Act of 1976, 17 U.S.C. § 107.

64 Levendowski, *supra* note 16, at 620.

intended to be "treated in isolation, one from another. All are to be explored, and the results weighed together, in light of the purposes of copyright."[65] Although the U.S. Supreme Court has traditionally characterized fair use as an affirmative defense, the U.S. Court of Appeals for the Ninth Circuit in *Lenz v. Universal Music Corp.* held that fair use was not only a defense to an infringement claim, but an expressly authorized right and an exception to the exclusive rights granted to an author of a creative work by copyright law.[66] Ultimately, under the Copyright Act, a "fair use of a copyrighted work . . . is not an infringement of copyright."[67]

A. Fair Use or Fair Dealing: Who Does It Better?

Copyright law in the digital age should be flexible enough to quickly respond to changes in technology.[68] "Fair use" and "fair dealing" are both terms that offer flexibility as they relate to the use of a copyrighted work that does not require permission or a license from the copyright owner.[69] Fair use is a defense under U.S. law.[70] Meanwhile, fair dealing is a copyright exception found in many of the common law jurisdictions of the Commonwealth of Nations.[71] Such exceptions serve as "safety valves in copyright law."[72] Both fair use and fair dealing allow a variety of "beneficial uses that society has agreed copyright owners should not be able to charge for, or worse, prevent."[73] However, although the purpose of both legal concepts is to strike a balance between the interests of copyright holders and users, a fundamental difference quickly becomes apparent: the American concept of fair use is much more flexible than fair dealing.[74]

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65 Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 578 (1994).

66 *See* 801 F.3d 1126, 1133 (9th Cir. 2015) ("Fair use is therefore distinct from affirmative defenses where a use infringes a copyright, but there is no liability due to a valid excuse, e.g., misuse of a copyright.").

67 17 U.S.C. § 107.

68 *See* Teresa Hackett, *Fair Dealing: To Replace or Reinstate?*, ELEC. INFO. FOR LIBRS. (Feb. 22, 2017), https://www.eifl.net/blogs/fair-dealing-replace-or-reinstate.

69 Laura Ward-Ure, *Copyright Uncovered: Fair Use v. Fair Dealing*, THE DESIGN AND ARTISTS COPYRIGHT SOCIETY (Sept. 19, 2018), https://www.dacs.org.uk/latest-news/copyright-uncovered-%E2%80%93-q3-2018-fair-use-v-fair-deal.

70 *See supra* text accompany notes 61–67.

71 *See* Ward-Ure, *supra* note 69. Some countries that have fair dealing laws include Australia, Canada, India, New Zealand, Singapore, South Africa, and the United Kingdom. *See* JONATHAN BAND & JONATHAN GERAFI, THE FAIR USE/FAIR DEALING HANDBOOK 4, 17, 27, 42, 55, 59, 68 (2015).

72 Nicolas Suzor, *Explainer: What is 'Fair Dealing' and When Can You Copy Without Permission?*, THE CONVERSATION (July 16, 2017), https://theconversation.com/explainer-what-is-fair-dealing-and-when-can-you-copy-without-permission-80745.

73 *Id.*

74 *Id.*; *see also* Michael Hoyle, *Fair Dealing and Fair Use: How Australian Copyright Differs from the USA*, LAWPATH (Oct. 25, 2019), https://lawpath.com.au/blog/fair-dealing-and-fair-use-how-australian-copyright-differs-from-the-usa ("Both fair dealing and fair use allow you to use other copyrighted work in your own without breaking the law. Fair use allows for a lot more flexibility when it comes to using other works. Fair dealing, on the other hand, is more restrictive.").

Fair dealing laws enumerate defined categories of acceptable fair use.[75] Unlike the U.S. doctrine of fair use, fair dealing cannot apply to any use that does not fall within one of the enumerated categories.[76] In other words, the defenses made available under the fair dealing scheme are restricted to the particular uses listed under a state's fair dealing laws.[77] As a result, many uses that may well be fair are at greater risk of copyright infringement liability.[78]

The U.S. concept of fair use, on the other hand, is much more open-ended because it relies on a four-factor analysis that lends itself to a case-by-case evaluation.[79] U.S. copyright law provides examples of fair use, such as teaching, researching, and reporting; however, these examples are not an exhaustive list of categories.[80] Although this characteristic of the fair use doctrine makes it more vague when compared to fair dealing, it is more flexible and, as a result, allows courts to consider questions of fairness and social objectives.[81] Significantly, U.S. courts determining whether the use of a copyrighted work is fair look to whether it is "transformative," meaning "the copying of the work adds something meaningful to the original or adds new expression."[82]

B. Social Objectives & Public Benefits in Fair Use Cases

While fair use has existed as a judicially created doctrine since 1841[83] and was eventually codified in 1976,[84] courts have only recently started to explicitly consider the social objectives of a copyright use in its fair use determinations. In *A.V. ex rel. Vanderhye v. iParadigms*, the defendant developed Turnitin, a plagiarism detection service used by high schools and universities to assess the originality of students' work.[85] After a student submits a writing assignment, Turnitin compares the student's work with content on the Internet, databases of academic publications and periodicals, and student papers previously submitted to Turnitin.[86] Students sued iParadigms, alleging that, by archiving copies of previously submitted student papers, Turnitin created infringed copies of their

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75 Suzor, *supra* note 72; *see* BAND & GERAFI, *supra* note 70, at 1.

76 *See* Suzor, *supra* note 72; *see also Copyright and the Digital Economy (ALRC Report 122)*, AUSTRALIAN L. REFORM COMM'N (Feb. 12, 2013), https://www.alrc.gov.au/publication/copyright-and-the-digital-economy-alrc-report-122/6-the-new-fair-dealing-exception/advantages-of-fair-use-over-fair-dealing/ (outlining the advantages of fair use over fair dealing) [hereinafter *ALRC Report 122*].

77 *ALRC Report 122*, *supra* note 76.

78 *Id.*

79 *See* Hoyle, *supra* note 74.

80 *Id.*

81 *ALRC Report 122*, *supra* note 76.

82 *See* Hoyle, *supra* note 74.

83 Folsom v. Marsh, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841) (recognizing that not all literal copying constituted infringement).

84 17 U.S.C. § 107 (1976).

85 562 F.3d 630, 634 (4th Cir. 2009).

86 *Id.*

works.[87] Ultimately, the Fourth Circuit held that Turnitin's service was fair use, arguing that the digital plagiarism detection service "provide[d] a *substantial public benefit* through the network of education institutions using Turnitin."[88]

In the following cases involving digital libraries, both the district courts and circuit courts "gingerly considered the extent to which the public interest should be protected in their overall fair use assessments."[89] In *Authors Guild v. HathiTrust*, for instance, the defendant entered into agreements with Google to develop the HathiTrust Digital Library (HDL), a shared digital repository primarily intended for student use at universities.[90] Digitized copies of authored works in the HDL had full-text search capabilities and were made accessible to blind and print-disabled students.[91] In fact, the district court went as far as to say that "academic publication by print-disabled students has been revolutionized by the HDL," citing the difficulties blind and print-disabled students faced prior to digitalization.[92] When evaluating HathiTrust's use of copyrighted works, the Southern District Court of New York supplemented its four-factor fair use analysis with a public interest consideration, stating:

> The enhanced search capabilities that reveal no in-copyright material, the protection of Defendants' fragile books, and, perhaps most importantly, the unprecedented ability of print-disabled individuals to have an equal opportunity to compete with their sighted peers in the ways imagined by the [Americans with Disabilities Act] protect the copies made by Defendants as fair use to the extent that Plaintiffs have established a *prima facie* case of infringement. In addition to the briefs submitted by the parties, the two memoranda filed by amici further confirm that the underlying rationale of copyright law is enhanced by the HDL.[93]

Similarly, in deciding the companion case, *Authors Guild v. Google*, the Southern District Court of New York and the Court of Appeals for the Second Circuit were guided by the public interest when conducting their fair use analyses.[94] There, authors of published books under copyright sued Google for copyright infringement when the search engine scanned digital copies of books, created a

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87 *Id.* at 635.

88 *Id.* at 638 (emphasis added).

89 Haochen Sun, *Copyright Law as an Engine of Public Interest Protection*, 16 NW. J. TECH. & INTELL. PROP. 123, 136 (2019).

90 902 F. Supp. 2d 445, 448 (S.D.N.Y. 2012).

91 *Id.* at 448–49.

92 *Id.*

93 *Id.* at 464. Although the district court decision was vacated in part by the Second Circuit's 2014 decision, the Second Circuit concluded that "providing access to the print-disabled is still a valid purpose under Factor One even though it is not transformative." Authors Guild, Inc. v. HathiTrust, 755 F.3d 87, 102 (2d Cir. 2014).

94 804 F.3d 202, 212–14 (2d Cir. 2015).

publicly available search function, and provided free "snippets" of text containing searched terms.[95]

Beginning in 2004, Google contracted with some of the world's top research libraries[96] to receive books from their collections, make digital scans of the books, and create an index of machine-readable text of each book. [97] Google "retain[ed] the original scanned image of each book" and "indexed more than 20 million books."[98] Today, we know this searchable collection of books to be Google Books.[99] Google did not display advertising to users of this new search engine.[100] It also did not "receive payment by reason of the searcher's use of Google's link to purchase the book."[101]

The Second Circuit found that the public should be regarded as "the ultimate, primary intended beneficiary [of copyright protection]."[102] Relatedly, the district court concluded that "Google Books provides significant public benefits," weighing the public benefit as follows:

> It advances the progress of the arts and sciences, while maintaining respectful consideration for the rights of authors and other creative individuals, and without adversely impacting the rights of copyright holders. It has become an invaluable research tool that permits students, teachers, librarians, and others to more efficiently identify and locate books. It has given scholars the ability, for the first time, to conduct full-text searches of tens of millions of books. It preserves books, in particular out-of-print and old books that have been forgotten in the bowels of libraries, and it gives them new life. It facilitates access to books for print-disabled and remote or underserved populations. It generates new audiences and creates new sources of income for authors and publishers. Indeed, all society benefits.[103]

That is to say, the interpretations of the fair use doctrine put forth by the district courts and circuit courts may have made these digital libraries possible, but it was in large part due to the public interest lens applied to fair use.[104] As AI continues to be embedded in all aspects of our daily lives,

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95 *Id.* at 207.

96 At the time the lawsuit was filed, libraries participating in Google's Library Project "included the University of Michigan, the University of California, Harvard University, Stanford University, Oxford University, Columbia University, Princeton University, Ghent University, Keio University, the Austrian National Library, and the New York Public Library." *Id.* at 208 n.3.

97 *Id.* at 208.

98 *Id.*

99 *Id.*

100 *Id.* at 209.

101 *Id.*

102 Sun, *supra* note 89, at 136; *Authors Guild*, 804 F.3d at 212.

103 Authors Guild v. Google, Inc., 954 F. Supp. 2d 282, 293 (S.D.N.Y. 2013).

104 *See* Sun, *supra* note 89.

careful consideration for the public interest could revolutionize copyright law and the fair use doctrine.

IV. FAIR USE 2.0: UPDATING A DOCTRINE FOR THE DIGITAL AGE

Because copyright law has not yet clarified a distinction between infringement and fair use for works generated by an AI process, the *Authors Guild* cases provide valuable insight into the interaction between copyrighted works used for AI development purposes and those reproducing a work in a culpable manner. The Second Circuit reasoning in this line of cases suggests that the fair use doctrine can and should be expanded to encompass copyrighted works when used for the purpose of training a less biased AI system. Given that courts have recognized public benefit in fair use cases, particularly in cases involving the use of new technologies, the fair use doctrine could very well accommodate the substantial public benefit derived from fairer and less biased AI.

A. Using Copyrighted Works to Train an AI System is a Transformative Use

The first fair use factor assesses the "purpose and character" of the use, including whether the use is "of commercial nature."[105] The central question of this inquiry is whether the use "merely 'supersede[s] the objects' of the original creation . . . or instead adds something new, with a further purpose . . . in other words, whether and to what extent the new work is 'transformative.'"[106]

By upholding the district court's grant of summary judgment on fair use under 17 U.S.C. § 107 in *Authors Guild v. Google*, the Second Circuit found that creating the Google Books search index was transformative, with a purpose "to make available significant information about those books."[107] Significantly, Google's purpose was also to provide the public with the necessary information to make a decision about purchasing a book without providing so much information that the full context of the book was no longer necessary.[108] Applying this logic to a similar process performed by AI, it appears courts will have to weigh the output of the AI against the inputs to determine how the AI treats the copyrighted work as well as the overall transformative nature of the AI-generated content.

B. The Factual Nature of an AI System Depends on the Copyrighted Works Used

The Second Circuit noted that the second fair use factor, "'the nature of the copyrighted work[,]' . . . rarely play[s] a significant role in the determination of a

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105 17 U.S.C. § 107(1) (2018).

106 Campbell v. Acuff-Rose, 510 U.S. 569, 579 (1994) (quoting Justice Story's discussion in *Folsom v. Marsh*, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841)).

107 804 F.3d at 217 (emphasis in original).

108 *Id.* at 207, 215–18.

fair use dispute."[109] The U.S. "Supreme Court has stated that 'fair use is more likely to be found in factual works than in fictional works,' noting that 'a use is less likely to be deemed fair when the copyrighted work is a creative product.'"[110] Thus, with respect to AI, it seems the second factor weighs in favor of fair use for factual information; however, to the extent that AI relies on expressive works, such as works of fiction or poems, to train its underlying system, this factor would weigh against fair use.

Yet, the use of fictional works as training data for AI systems to learn abstract concepts about language or images is not related to the creative characteristics of the copyrighted works. For example, natural language processing systems could be greatly improved by training data that includes creative works because it exposes the system to more nuanced language, like euphemisms, analogies, vernacular, and sarcasm.[111] Furthermore, the public benefits from AI development that is less reliant on "biased, low-friction data."[112]

C. Wholesale Copying of Copyrighted Works to Train an AI System is Reasonable

The third factor examines the "amount and substantiality of the portion [taken]."[113] Copying the entirety of a work "'does not preclude fair use per se,' [though] copying an entire work 'militates against a finding of fair use.'"[114] Fair use cases involving innovative technologies, such as digital libraries in the *Authors Guild* cases, tend to feature the wholesale copying of visual and literary works.[115] Courts have regularly found that such extensive copying can be necessary for certain purposes.[116]

Bearing in mind that Google copied the entirety of the copyrighted works, the Second Circuit found that "what matters . . . is not so much 'the amount and substantiality of the portion used' *in making a copy*, but rather the amount and substantiality of *what is thereby made accessible* to a public for which it may serve as a competing substitute."[117] The Second Circuit noted that courts have rejected categorical rules prohibiting fair use from works that are copied in their entirety.[118] Instead, noting that "unchanged copying has repeatedly been found justified as fair use when the copying was reasonably appropriate to achieve the copier's

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109 *Id.* at 220.

110 Levendowski, *supra* note 16, at 625 (quoting Stewart v. Abend, 495 U.S. 207, 237 (1990)).

111 *Id.* at 626.

112 *Id.* at 610.

113 17 U.S.C. § 107 (2018).

114 Worldwide Church of God v. Phila. Church of God, Inc., 227 F.3d 1110, 1118 (9th Cir. 2000) (quoting Hustler Mag., Inc. v. Moral Majority, Inc., 796 F.2d 1148, 1155 (9th Cir. 1986).

115 Levendowski, *supra* note 16, at 627.

116 *Id.*

117 Authors Guild v. Google, Inc., 804 F.3d 202, 222 (2d Cir. 2015) (emphasis in original).

118 *Id.* at 221; *see* Bill Graham Archives v. Dorling Kindersley Ltd., 448 F.3d 605, 613 (2d Cir. 2006) ("[C]opying the entirety of a work is sometimes necessary to make a fair use of the [work].").

transformative purpose and was done in such a manner that it did not offer a competing substitute for the original."[119] It is also significant that in the line of digital library cases, neither *HathiTrust* nor *Authors Guild* reveals the copied works to the public, since courts tend to more readily recognize the wholesale copying of copyrighted works as reasonable when the works are not then exposed to the public.[120]

D. Using Copyrighted Works to Train an AI System Does Not Harm the Market

The fourth factor of the fair use analysis is concerned with "the effect of the use upon the potential market for or value of the copyrighted work."[121] More specifically, courts focus on whether the subsequent use "may serve as a market substitute for the original."[122] In *HathiTrust*, the Second Circuit stated that "[a] transformative work . . . serves a new and different function from the original work and is not a substitute for it."[123] In other words, simply concluding that the secondary use was transformative was a sufficient showing that it was not a substitute for the original copyrighted work. Significantly, "[u]sing copyrighted works as training data for AI systems is not a substitute for the original expressive use of the works."[124]

Lastly, in the U.S. Supreme Court's *Google LLC v. Oracle America, Inc.* decision, the Court recognized questions of public benefit to be relevant in determining the likely market effects of Google's use of the copyrighted works in that case.[125] In evaluating the effect on the market, the Court explicitly balanced public benefits and potential losses experienced by the copyright owners: "Are those benefits . . . related to copyright's concern for the creative production of new expression? Are they comparatively important, or unimportant, when compared with dollar amounts likely lost (taking into account as well the nature of the source of the loss)?"[126] These questions posed by the Supreme Court suggest that public benefit considerations may be grappled with more as part of the fourth factor of the fair use analysis.

CONCLUSION

AI systems are only as good as the humans who develop them. Biased humans will produce biased AI. The law, itself an institution that mirrors human biases, should guide this ever-evolving technology towards fairer and safer

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119 *Authors Guild*, 804 F.3d at 221.

120 *Id.* at 221; Authors Guild, Inc. v. HathiTrust, 755 F.3d 87, 91 (2d Cir. 2014); *see also* Levendowski, *supra* note 16, at 628.

121 17 U.S.C. § 107 (2018).

122 Campbell v. Acuff-Rose, 510 U.S. 569, 587 (1994).

123 *HathiTrust*, 755 F.3d at 96.

124 Levendowski, *supra* note 16, at 629; *see HathiTrust*, 755 F.3d at 100 ("Lost licensing revenue counts under Factor Four only when the use serves as a substitute for the original and [this use] does not.").

125 *See* 141 S. Ct. 1183, 1206 (2021).

126 *Id.*

applications. The recent *Authors Guild* cases demonstrate that courts are willing and able to interpret the fair use doctrine in a more forward-thinking and socially beneficial manner. More importantly, the fair use interpretation in these recent cases suggests that more copyrighted works can legally be included as training data for AI systems and should be used to selectively diversify the inputs to these systems to reduce the risk of bias in their outputs.

AI is here—and it is here to stay. Given that AI touches intellectual property, privacy, policing, employment, discrimination, and virtually every other space imaginable, AI will be the subject of many important lawsuits for the foreseeable future. While copyright law has the power to bias AI systems, it also has the power to remove bias from them. As long as courts continue to account for public benefit in their fair use analyses, one principle will be clear: few public benefits are as substantial as fairness.