ORAL ARGUMENT NOT YET SCHEDULED CASE No. 23-5233

IN THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA

STEPHEN THALER, an individual,

Plaintiff and Appellant,

v.

SHIRA PERLMUTTER, in her official capacity as Register of Copyrights and Director of the United States Copyright Office; U.S. Copyright Office,

Defendant and Appellee.

On Appeal from the United States District Court for the District of Columbia, Case No. 1:22-cv-01564 (Hon. Beryl A. Howell)

BRIEF OF LEGAL PROFESSORS SHLOMIT YANISKY-RAVID, GE CHEN, ADAM GUTTENTAG, LAWRENCE LESSIG, AND CHRISTOPHER MASON, AND OF DISABLED VETERAN ELISA SHUPE, AS AMICI CURIAE IN SUPPORT OF APPELLANT AND URGING REVERSAL

Ryan N. Phelan Marshall, Gerstein & Borun LLP 233 South Wacker Drive Suite 6300, Chicago, IL 60606-6357 Phone: 312-474-6607 E: rphelan@marshallip.com

Counsel for Amici Curiae

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to D.C. Circuit Rule 28(a)(1), Amici Curiae as identified herein certifies as follows:

A. Parties and Amici

All parties, other than Amici Curiae identified herein, appearing before this court are listed in the Brief for Stephen Thaler. *See*Statement of Issues to be Raised and Certificate as to Parties, Rulings, and Related Cases, Case No. 23-5233 (D.C. Cir., Nov. 17, 2023) (Doc. #2027726).

The Amici Curiae are not, and do not represent, a corporation, association, joint venture, partnership, syndicate, or other similar entity pursuant to D.C. Circuit Rule 26.1. Instead, the Amici Curiae comprise natural persons represented in their individual respective capacities.

B. Rulings Under Review

References to the rulings at issue appear in the Brief for Stephen Thaler. *See* Statement of Issues to be Raised and Certificate as to Parties, Rulings, and Related Cases, Case No. 23-5233 (D.C. Cir., Nov. 17, 2023) (Doc. #2027726).

C. Related Cases

Amici Curiae are not aware of any related cases.

Dated: January 26, 2024 By: /s/Ryan N. Phelan

Ryan N. Phelan

Marshall, Gerstein & Borun LLP

233 South Wacker Drive

Suite 6300, Chicago, IL 60606-6357

Phone: 312-474-6607

E: rphelan@marshallip.com

Counsel for Amici Curiae

TABLE OF CONTENTS

CER	TIFIC	CATE AS TO PARTIES, RULINGS, AND RELATED CASES	3.i
TAB	LE O	F CONTENTS	.iii
TAB	LE O	F AUTHORITIES	v
STA		ENT OF IDENTITY, INTEREST IN CASE, AND SOURCE AUTHORITY TO FILE	1
SUM	I MAR	Y OF ARGUMENT	5
ARG	UME	NT	5
I.	Copy	right Regime And Artificial Intelligence	5
	1.	Copyright Law Was Meant to Adapt to New Technologies.	7
	2.	Adopting The "Lion Share" Test to Grant Copyright to Computer Generated Works of Art	15
II.		yright Protection For AI-Generated Works Is A Crucial alyst For Economic Growth	18
	1.	Copyright for AI-Created Works Are Key to Economic Growth and U.S. Technological Leadership; No Copyright Protections Would Be a Death Sentence	18
III.	Glob	eal Impact Of U.S. Creative Industries Is At Risk	24
	1.	Copyright Nullification in AI Works Drives Creative Industry Offshore	24
	2.	Global Comparative Trend Of Copyrighting Autonomous Works: U.S. Must Not Lag Behind	26
IV.		nting Copyright To Generative AI Users Supports bility Accommodation	34
	1.	AI is an Important Tool for Creative People with Disabilities to Protect Their Creative Works	34

V.	New U.S. Copyright Office Guidelines For AI-Generated Works Creates A Human Contribution Mandate Which May		
	Be Impractical	36	
CER	TIFICATE OF COMPLIANCE	39	
CER	TIFICATE OF SERVICE	40	
ADE	DENDUM	41	

TABLE OF AUTHORITIES

Cases
Beijing Film Law Firm v. Beijing Baidu Netcom Technology Co., Ltd, Beijing Internet Court (2018) Beijing 0491 Min Chu No. 23936
Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53 (1884)
Eldred v. Ashcroft, 537 U.S. 186 (2003)
Express Newspapers Plc v Liverpool Daily Post and Echo Plc and others, [1985] 3 All ER 68032
Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974)
Li v. Liu, Beijing Internet Court (2023) Beijing 0491 Min Chu No. 1127938
Lindsay v. Wrecked & Abandoned Vessel R.M.S. TITANIC, 1999 WL 816163 (S.D.N.Y. Oct. 13, 1999)11
Mazer v. Stein, 347 U.S. 201(1954)
Mozur, Paul <i>Beijing Wants AI to Be Made in China by 2030</i> , N.Y. TIMES (July 20, 2017)29
Nova Productions Ltd. v. Mazooma Games Ltd & Others, [2007] EWCA Civ 219
Rearden LLC v. Walt Disney Co., 293 F. Supp. 3d 963 (N.D. Cal. 2018)
Shenzhen Tencent Computer System Co., Ltd v. Shanghai Yingxun Technology Co. Ltd,

People's Court of Nanshan (District of Shenzhen) (2019) Yue 0305 Min Chu No. 1401037
Torah Soft Ltd. v. Drosnin, 136 F. Supp. 2d 276 (S.D.N.Y. 2001)
Twentieth Century Music Corp. v. Aiken, 422 U.S. 151 (1975)
Statutes 17 U.S.C. § 101
17 U.S.C. § 102
17 U.S.C. § 201
Other Authorities 110 Cong. Rec. H10238 (daily ed. Sept. 27, 2008) 21
Americans with Disabilities Act (ADA), Title I, 42 U.S.C. §§ 12111 (9). (September 25, 2008)
Andressen, Marc Why AI Will Save the World, ANDREESSEN HOROWITZ (June 6, 2023), https://a16z.com/ai-will-save-the-world/6
Artificial Intelligence Call For Views: Copyright And Related Rights, THE INTELLECTUAL PROPERTY OFFICE OF THE UNITED KINGDOM (last updated Mar. 23, 2021)
Artist in the US Workforce (2020)41
Bankhurst, Adam <i>The 15 Highest Grossing Movies of All Time</i> , IGN (updated Nov. 16, 2023)26
Bo, Zhou Artificial Intelligence and Copyright ProtectionJudicial Practice in Chinese Courts, WIPO37

Chen, Ge Copyright and International Negotiations: An Engine of Free Expression in China? 21–32 (2017)
Chu et al., The Economic Potential of Generative AI: The Next Productivity Frontier, Mckinsey and Co., (2023)
Copyright Registration Guidance: Works Containing Material Generated, by Artificial Intelligence, 88 Fed. Reg. 16,190 (Mar. 16, 2023)
Copyright, Designs and Patents Act (CDPA) 1988
Digital Audio Workstation Market Size & Share Analysis - Growth Trends & Forecasts (2023 - 2028) (2023) https://www.mordorintelligence.com/industry-reports/digital- audio-workstation-market
Elliot, David AI Represents Huge Opportunity for NI Tech Sector – Conference, BUSINESSLIVE (Oct. 27, 2023)
European Commission, Directorate-General for Communications Networks, Content and Technology, Hartmann, C., Allan, J., Hugenholtz, P. et al., Trends and developments in artificial intelligence – Challenges to the intellectual property rights framework – Final report, Publications Office of the European Union, 2020
Executive Office of the President, Artificial Intelligence, Automation, and the Economy (2016)29
Frater, Patrick Global Box Office Notched 27% Gain in 2022 to Hit \$26 Billion Total, Research Shows, VARIETY (Jan. 5, 2023)
Gilbert, Annelise Tech Group Warns AI Copyright Rules Could Send Innovation Abroad, BLOOMBERG LAW (Oct. 31, 2023)

Global Advertising Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028, IMARC GROUP25
Global Television Broadcasting Market Surges to \$287.81 Billion in 2023, Fueled by Robust Growth in Subscription-Based Revenue Models, Yahoo! Finance (Aug. 1, 2023)
HOWARD B. ABRAMS AND TYLER T. OCHOA, THE LAW OF COPYRIGHT
Hugenholtz, P. Bernt & Quintais, João Pedro Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?, 52 INT'L REV. OF INTELL. PROP. & COMPETITION L. 1190 (2021)
JARVIS, JEFF THE GUTENBERG PARENTHESIS: THE AGE OF PRINT AND ITS LESSONS FOR THE AGE OF THE INTERNET 7 (2023)
Jones, Hollin What Is A DAW? - A Guide To The Digital Audio Workstation, https://www.steinberg.net/tutorials/what-is-a-daw/
Khan, B. Z., The Democratization of Invention: Patents and Copyrights in American Economic Development, 1790-1920 (2005)
Litwak, Mark Attention, Filmmakers: Here's What You Need to Know About Chain of Title (and Why You Need It), INDIEWIRE (Oct. 7, 2015). 27
Opinions of the Supreme People's Court on Regulating and Strengthening the Applications of Artificial Intelligence in the Judicial Fields, § 19, 12 Aug. 2022
Perspectives from the Global Entertainment & Media Outlook 2023–2027, PWC (June 21, 2023)
Rappaneau, Dale Art-generating AI as an accessibility tool for disabled artists (January 25, 2023)40

Register of Copyrights, Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law (1961)
Registration Decision on Zarya of the Dawn (Feb. 21, 2023)
Review Board Decision on SURYAST (Dec. 11, 2023)
Reyburn, Scott Art Market Has Climbed Above Prepandemic Level, Major Study Says, The New York Times (updated April 6, 2023)
Ringer, Barbara A. Role of the United States in International Copyright-Past, Present, and Future, 56 GEO. L. J. 1050 (1968)
Scannell, Barry When Irish AIs are Smiling: Could Ireland's Legislative Approach be a Model for Resolving AI Authorship for EU Member States?, 17 J. OF INTELL. PROP. L. & PRAC. 727 (2022)
Siwek, Stephen E., Copyright Industries in the U.S. Economy: The 2018 Report (2018), available at https://iipa.org/files/uploads/2018/12/2018CpyrtRptFull.pdf21
Smirke, Richard IFPI Global Report 2023: Music Revenues Climb 9% to \$26.2 Billion, BILLBOARD (Mar. 21, 2023)
Software Services Global Market Report 2023, YAHOO! FINANCE (June 28, 2023)25
Spulber, Daniel How Patents Provide the Foundation of the Market For Inventions, 11 J. COMP. L. & ECON. 271 (2014)
Stoner, Robert and Dutra, Jessica Copyright Industries in the U.S. Economy: The 2022 Report, IIPA, Dec. 2022, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=445358820

Toshniwal, Akshita Video-Gaming Revenue To Grow 2.6% In 2023 On Console Sales Strength – Report, REUTERS (Aug. 8, 2023)
U.S. Const., Art. I, § 8, cl. 8
What is AI Art? How Art Generators Work (2023)40
What is the Public Domain?, COPYRIGHTLAWS.COM (Mar. 7, 2023)
What Musicians Should Know About Copyright (2023) https://www.copyright.gov/engage/musicians/
Woollaston, Victoria The Surprisingly Subtle Ways Microsoft Word Has Changed How We Use Language, BBC (Oct. 25, 2023)
Yanisky-Ravid, Shlomit Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era-The Human-like Authors are Already Here- A New Model, 2017 Mich. St. L. Rev. 659, 665-66 (2017)
Yanisky-Ravid, Shlomit & Liu, Xiaoqiong When Artificial Intelligence Systems Produce Inventions: The 3A Era and an Alternative Model for Patent Law, 39 CARDOZO L. REV. 2215, 2231 (2018)
Yanisky-Ravid, Shlomit and Velez-Hernandez, Luis Antonio, Copyrightability of Artworks Produced by Creative Robots and the Concept of Originality: The Formality - Objective Model, MINN J. L. Sci. & Tech., at *56 (March 31, 2017), https://ssrn.com/abstract=2943778
Rules Federal Rule of Appellate Procedure 29
Treatises 1 Nimmer on Copyright § 2.03 (2023)

Copyright Ordinance (Chapter 528)	29
The Copyright Act 1957	29
The Copyright Act 1978	29
The Copyright Act 1994	29
The Copyright and Related Rights Act of 2000	29

STATEMENT OF IDENTITY, INTEREST IN CASE, AND SOURCE OF AUTHORITY TO FILE¹

Professor Shlomit Yanisky-Ravid is an accomplished expert in Intellectual Property (IP) Law, specializing in the challenges artificial intelligence (AI) and emerging technologies pose to IP laws. Within the U.S. Copyright Association, Judge Katherine Forrest lauds Professor Yanisky-Ravid as the foremost thinker on AI and copyright. Professor Yanisky-Ravid's various roles include or have included a Visiting Professor at Fordham Law School since 2012, a research fellow at Yale Law School's Information Society Project since 2011, a board member of Penn State Dickinson Law IP & Innovation and the Global IP Alliance, the Head of Graduate Law School Commercial Law, High-Tech and Technology', and a Senior Law Faculty Member at Ono Academic College, Law School in Israel, the latter of which where she founded the

¹ Pursuant to Federal Rule of Appellate Procedure 29(a)(2), all parties have consented to the filing of this brief. No counsel for a party authored this brief in whole or in part. See Fed. R. App. P. 29(a)(4)(E)(i). No party or party's counsel contributed money that was intended to fund preparing or submitting the brief. See Fed. R. App. P. 29(a)(4)(E)(ii). No person – other than amici curiae, its members, or its counsel —contributed money that was intended to fund preparing or submitting the brief. See Fed. R. App. P. 29(a)(4)(E)(iii).

Shalom Comparative Research Institute, Eliyahu Law and Tech Center. She has won awards and scholarships for publications and research on the legal impact of AI and blockchain, including the visionary article "Generating Rembrandt" recognized by Michigan State University.

Lawrence Lessig is the Roy L. Furman Professor of Law and Leadership at Harvard Law School. He previously taught at Stanford Law School, where he founded the Center for Internet and Society, and at the University of Chicago. He clerked for Judge Richard Posner on the 7th Circuit Court of Appeals and Justice Antonin Scalia on the United States Supreme Court. Lessig is the founder of Equal Citizens, a founding board member of Creative Commons, and serves on the Scientific Board of AXA Research Fund. As member of the American Academy of Arts and Sciences and the American Philosophical Society, he has received numerous awards including a Webby, the Free Software Foundation's Freedom Award, Scientific American 50 Award, and Fastcase 50 Award. He is the author of numerous award-winning books.

Dr. Christopher Mason is a Professor of Genomics, Physiology, and Biophysics at Weill Cornell Medicine. He also holds appointments at the Tri-Institutional Computational Biology and Medicine Program (Rockefeller University, Memorial Sloan-Kettering Cancer Center, and Cornell University), and holds affiliate appointments at Harvard Medical School and the Information Society Project (ISP) at Yale Law School, where he was a Fellow from 2006-2009. Dr. Mason is also the Director of the WorldQuant Initiative for Quantitative Prediction at Cornell, which builds and deploys AI algorithms in clinical practice, bioinformatics, and biotechnology.

Dr. Ge Chen is an Assistant Professor in Global Media and Information Law at Durham Law School. His research interests are media and information law and their constitutional and rule-of-law aspects in international and comparative perspectives, with a focus on China. He is the author of *Copyright and International Negotiations:*An Engine of Free Expression in China? (Cambridge University Press 2017), a research monograph featured in Harvard Law Review. He is a Fellow of the Information Society Project at Yale Law School and was a research associate at Mercator Institute for China Studies, the largest China-related think tank of the European Union. His work was cited by the European Commission in its 2017 legislation report and the U.S.

China Economic and Security Review Commission's 2023 annual report to the Congress.

Adam Guttentag is a Shalom Comparative Research Institute Fellow. He has also led a global partnership program team at Oosto (formerly AnyVision), an AI based machine vision company.

Ms. Elisa Rae Shupe is a career veteran with a 100% permanent and total disability rating. See Addendum, Letter from Department of Veterans Affairs (Oct. 17, 2023). Ms. Shupe finds creating most effective when she can convey her ideas to an artificial intelligence (AI) tool such as ChatGPT. See id. The tool can translate Ms. Shupe's concepts into well-crafted language that meets the quality guidelines of author platforms. This personalized approach leverages her focused interests and optimizes her creative output. Id.

The district court's decision is of interest to the above identified Amici Curiae, not merely because the decision was wrongly decided, but also because of its potentially destructive effect on the U.S. copyright regime. The U.S. is a leader in the creative industries and the district court's interpretation of copyright laws jeopardizes billions of dollars in

current and future investments, threatens U.S. competitiveness, and reaches a result at odds with the spirit of the Copyright Act.

SUMMARY OF ARGUMENT

Copyright law was meant to, and has in various cases, adapted to new technologies, including computer-related technologies. Such adaptation with respect to Artificial Intelligence ("AI") is critical to allow U.S. economic growth and U.S technical leadership in this growing field. It is to the disadvantage of the U.S. to preclude copyright protection of AI generate works where foreign jurisdictions have allowed such protection. Further, AI provides an important tool for disabled artists to create artwork; without copyright protection, such artists would be unfairly impacted.

ARGUMENT

I. COPYRIGHT REGIME AND ARTIFICIAL INTELLIGENCE

AI is being increasingly deployed across various U.S. creative industries. The use of AI promises significant increases in efficiency and creativity, surpassing the capabilities of traditional methods in terms of

scale, speed, creativity, and as a repository of knowledge. AI can handle vast datasets and complex tasks that would be impractical or impossible for a human creator to manage within reasonable efforts and timeframes. AI systems can significantly help industries, artists, and creators to lower the cost of the initial development of creative goods such as music, art, literature, software, design, and inventions. With the advent of AI and its rapid adoption, we can no longer refer to the creative process as solely and individually being in the hands of humans. Complex AI algorithms are breaking the traditional monopoly of human creativity, coexisting alongside and integrating with the copyrightable regime, and are indeed becoming a significant part of the creative landscape. This integration with human creativity raises a

² Shlomit Yanisky-Ravid, Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era-The Human-like Authors are Already Here-A New Model, 2017 Mich. St. L. Rev. 659, 665-66 (2017).

³ Marc Andressen, Why AI Will Save the World, ANDREESSEN HOROWITZ (June 6, 2023), https://a16z.com/ai-will-save-the-world/.

⁴ Yanisky-Ravid, Shlomit and Velez-Hernandez, Luis Antonio, Copyrightability of Artworks Produced by Creative Robots and the Concept of Originality: The Formality - Objective Model, MINN J. L. SCI. & TECH., at *56 (March 31, 2017), https://ssrn.com/abstract=2943778.

question regarding how copyright applies to AI generated works. While there has been a recent surge in AI advancements, new technologies have not historically impeded the copyrightability of IP. The following subchapters argue that granting copyright to AI generated works fits into the existing copyright regime.

1. Copyright Law Was Meant to Adapt to New Technologies.

Technology and copyright have always been intertwined. The advent of the printing press in the 15th century kickstarted a nearly 600-year tug-a-war between technology and intellectual property law.

The first novel and regularly published newspaper were created in 1605, leading to new economic models for a burgeoning industry. These technological and economic advances led to the first copyright law, The Statute of Anne, enacted in England in 1710. The need for copyright protections followed a major technological invention—the printing press—and it granted rights to publishers utilizing this new technology. The launch of various mediums—cameras, word processors, the internet, social media, video—revolutionized how

⁵ JEFF JARVIS, THE GUTENBERG PARENTHESIS: THE AGE OF PRINT AND ITS LESSONS FOR THE AGE OF THE INTERNET 7 (2023)

⁶ *Id.* at 7, 215.

individuals exploit, control, and understand IP.⁷ Now AI has kickstarted the next stage in the evolution.⁸

The Constitution echoes this goal as well, stating that Congress has the obligation "to promote the Progress of Science and useful Arts"9 by a variety of means, which includes copyright law. Further, in 1901, when Congress updated the Copyright Act, it declared that it was "not primarily for the benefit of the author, but primarily for the benefit of the public such rights are given." ¹⁰ This was further explained in the 1961 Report of the Register of Copyrights, with the first chapter entitled "Theories of Copyright" and explaining "[a]s reflected in the Constitution, the ultimate purpose of copyright legislation is to foster the growth of learning and culture for the public welfare, and the grant of exclusive rights to authors for a limited time is a means to that end." ¹¹ The Supreme Court explained in *Mazer v. Stein* that, "[t]he

⁷ *Id.* at 8.

⁸ *Id.* at 9.

⁹ U.S. Const., Art. I, § 8, cl. 8

 $^{^{10}}$ See Jarvis supra note 5 at 218-219 (2023).

¹¹ Register of Copyrights, Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law (1961), printed in House Comm. on the Judiciary, 87th Cong., 1st Sess., Copyright Law

economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts."12 Embracing new technologies to benefit the public good is a cornerstone of copyright theory. The Supreme Court further explained: "[c]reative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability to literature, music, and the other arts." ¹³ An intellectual property right is not a limitless natural one, rather, it is statutory, with limitation that must align with the framers goals of incentivizing the people and entities that contributed the "lion share" of work, even when generated by AI.¹⁴

Revision Part 1 - Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law, 3–6 (Comm. Print 1961) [hereinafter Register's Report] at 5.

¹² Mazer v. Stein, 347 U.S. 201, 219 (1954).

¹³ Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975).

¹⁴ HOWARD B. ABRAMS AND TYLER T. OCHOA, THE LAW OF COPYRIGHT § 1:4; see also infra Section I.2.

U.S. copyright law and court decisions. The court's analysis in *Lindsay* v. Wrecked & Abandoned Vessel R.M.S. TITANIC demonstrates the permissiveness in interpreting and granting copyrights. In *Lindsay* there was a question around authorship of a documentary. ¹⁵ Although the author did not film the work himself, the accumulation of ideas, storyboards, and directions given to the film crew allowed the plaintiff to retain authorship. ¹⁶ This analysis is similar to how users of AI can provide an AI system their respective ideas, details, and directions for the final product they desire. Given the similarity and how the court ruled in *Lindsay*, users of AI should be granted ownership and copyright to protect their work.

Courts continue to evolve their interpretations of the Copyright

Act to further advance the arts and sciences by embracing advanced
technology. For example, in 1884, when cameras were a relatively new
technology, *Burrow-Giles Lithographic v. Sarony* raised questions

¹⁵ Lindsay v. Wrecked & Abandoned Vessel R.M.S. TITANIC, 1999 WL 816163 at *4 (S.D.N.Y. Oct. 13, 1999).

¹⁶ *Id* at *5.

around the copyrightability of photographs. ¹⁷ In this context, a matter of "first impression" arose at the Supreme Court in a dispute regarding whether a photograph, as taken by a camera (i.e., a machine), was or was not a protectable "writing" or "production" of an "author" in accordance with the then-prevailing copyright law. ¹⁸ At the time, photographs were not expressly considered as works of authorship. ¹⁹

The *Burrow-Giles* photograph-in-question—titled Oscar Wilde no. 18—depicted Oscar Wilde posing in a scene specifically arranged and selected by a well-known photographer, plaintiff Napoleon Sarony. Mr. Sarony had accused defendant Burrow-Giles Lithographic of copyright infringement, claiming Burrow-Giles had used the photograph in unauthorized lithograph reproductions. There was no dispute that a human (Mr. Sarony) had operated a camera (a type of "machinery") to take the photograph, but defendant Burrow-Giles argued that a

¹⁷ Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 61 (1884).

¹⁸ *Id.* at 56, 60.

¹⁹ *Id.* at 58 ("The only reason why photographs were not included in the extended list in the act of 1802 is, probably, that they did not exist, as photography, as an art, was then unknown, and the scientific principle on which it rests, and the chemicals and machinery by which it is operated, have all been discovered long since that statute was enacted.").

photograph could not be copyrighted because it was not authored by a "person," i.e.: "a photograph being a reproduction, on paper ...is not a writing of which the producer is the author." Mr. Sarony countered that he was an "author" eligible for copyright protection by virtue of his contribution to the conception to arrange and select the scene for the photograph, arranging the costume, and determining the light and shade for the photograph. ²¹

The Supreme Court agreed with Mr. Sarony, finding that Mr. Sarony's activities—arranging, selecting, and determining the scene for the photograph—gave rise to an original work of authorship pursuant to copyright law, even though the camera (a machine) ultimately took the photograph. ²² The Court also noted that "[w]e entertain no doubt that the constitution is broad enough to cover an act authorizing copyright of photographs, so far as they are representatives of original intellectual conceptions of the author." ²³

 $^{^{20}}$ Id. at 56 (emphasis added).

²¹ *Id.* at 60.

²² *Id*.

²³ *Id.* at 58.

With respect to AI, in many cases, a human is involved in training the AI model, using the system, adding a description, and/or modifying the outcome (see the "Multi Player" Model). ²⁴ Such human involvement may include, for example, arranging, selecting, or otherwise preprocessing training data for a "supervised learning" approach to train a given AI model. Further, a "reinforcement learning" approach typically requires a human to set up or otherwise define an "environment" and "rewards," thereby influencing how an intelligent agent takes actions in order to maximize the cumulative rewards and, thus, generate an AI model driven by the agent that can perform a desired (and rewarded) action.

As yet another example, for deep neural networks ("NNs"), a human is typically involved in the selection of "hyperparameters" used to control the learning process, where these can include aspects such as the model architecture (e.g., the number of hidden layers), learning

²⁴ Shlomit Yanisky-Ravid & Xiaoqiong Liu, *When Artificial Intelligence Systems Produce Inventions: The 3A Era and an Alternative Model for Patent Law*, 39 CARDOZO L. REV. 2215, 2231 (2018).

rate, the number of training epochs, and which activation function(s) to use, among many others.

Thus, human involvement in the selection and arrangement of training data, hyperparameters, or other preprocessing activities, as well selecting and modifying versions of the work, draws a parallel to a photographer's involvement in the selection and changing and arranging of a scene for a photograph. A clear analogy exists between the design of an AI model and the authorship of a photograph, as illustrated by *Burrow-Giles* in 1884.

As a further example, present day copyrights already protect modern tools deployed in artistic fields. The music industry is an exemplar. Most modern producers and musicians use a Digital Audio Workstation ("DAW") in the making of both instrumental beats and the master recordings of songs. ²⁵ A DAW is a form of software that runs on a computer and lets the user record, edit, and produce music—

²⁵ Digital Audio Workstation Market Size & Share Analysis - Growth Trends & Forecasts (2023 - 2028) (2023) https://www.mordorintelligence.com/industry-reports/digital-audio-workstation-market.

essentially another form of AI.²⁶ Producers can input musical instrument digital interface ("MIDI") data (i.e. an arrangement or pattern of digital notes onto a panel) and select what instrument, synth, or sound they want and the DAW will play it.²⁷ This is essentially the same process employed by most AI art generators where the artist is feeding a creative and detailed script into the AI tool for it to generate the final outcome. Most producers are afforded credits and copyright protections to the songs.²⁸ Since musicians are afforded these protections, artists using AI should also be afforded the same protections.

2. Adopting The "Lion Share" Test to Grant Copyright to Computer Generated Works of Art

The Copyright Act, 17 USC § 102, states in part that "[c]opyright protection subsists . . . in original works of authorship." ²⁹ The "phrase 'works of authorship' is 'purposefully left undefined.' A flexible definition was intended that would neither 'freeze the scope of

²⁶ Hollin Jones, What Is A DAW? - A Guide To The Digital Audio Workstation, https://www.steinberg.net/tutorials/what-is-a-daw/.
²⁷ Id.

<sup>What Musicians Should Know About Copyright (2023)
https://www.copyright.gov/engage/musicians/
17 USC § 102.</sup>

copyrightable subject matter at the present stage of communications technology nor . . . allow unlimited expansion into areas completely outside the present congressional intent." ³⁰ Certain creations, like the one in front of this court, pass the statutory muster to receive a copyright.

Courts have recently adopted the "Lion Share" test when confronting the copyrightability of computer-generated works. *Rearden v. Walt Disney*, a leading case for granting copyright to computer-generated works, explains that "copyright protection afforded [to] a computer program may extend to the program's output if the program 'does the lion's share of the work' in creating the output." *Rearden* involved rights to AI-generated masks and effects developed for "The Beauty and the Beast" film. The Court found that, despite the fact that the final output was generated by a sophisticated AI-like software, it is copyrightable, and Disney's major contributions to the end product—

³⁰ 1 Nimmer on Copyright § 2.03 (2023).

³¹ Rearden LLC v. Walt Disney Co., 293 F. Supp. 3d 963, 969 (N.D. Cal. 2018).

like the input of actor Dan Stevens' facial expressions uploaded to the software—warranted the granting of copyright to Disney.³²

This case does not stand alone. *Torah Soft Ltd. v. Drosnin* used the same "Lion Share" test to analyze whether a programmer or end user played a predominant role in the software's output. The case analysis demonstrated that copyright for AI or "computer-generated works" will go to those who contribute the most to the output. ³³

Importantly, in both cases, the courts did not deny copyright because of software's involvement, but instead conducted a fact-based analysis to determine which party contributed the most to the computer's outputs.

Further, U.S. law also allows copyright ownership to entities who were not the real creators of the work, exemplified in the IP registered under 17 U.S.C. § 101 "Work Made for Hire" doctrine.³⁴

The district court erred in its assumption that works generated by AI cannot be copyrighted, and hence that Dr. Thaler is not the copyright

³² *Id at 971.*

³³ See Torah Soft Ltd. v. Drosnin, 136 F. Supp. 2d 276, 283 (S.D.N.Y. 2001) (finding that the output was not original, and therefore not copyrightable).

³⁴ 17 U.S.C. § 201.

owner of the Creativity Machine's outputs. This work of art is <u>not</u> insulated from the "Lion Share" contribution of Thaler – it is a result of his major contribution. Thaler's design and development of the Creativity Machine had a direct influence on the work product. Dr. Thaler, as both the user and the software programmer, undoubtedly made a "Lion Share" contribution to its output. Since other courts have similarly applied the Copyright Act in this manner, the Creativity Machine should be treated accordingly.

- II. Copyright Protection For AI-Generated Works Is A Crucial Catalyst For Economic Growth
- 1. Copyright for AI-Created Works Are Key to Economic Growth and U.S. Technological Leadership; No Copyright Protections Would Be a Death Sentence.

As the Supreme Court explained in *Eldred v. Ashcroft*: "By establishing a marketable right, copyright supplies the economic incentive to create and disseminate ideas." This can be achieved through traditional methods and by AI. Copyrights are the economic

18

³⁵ Eldred v. Ashcroft, 537 U.S. 186, 219 (2003) (quoting Harper & Row Publishers v. Nation Enterprises, 471 U.S. 539, 558 (1985)).

engine that drives U.S. economic growth.³⁶ In 2018, the International Intellectual Property Alliance studied the impact of "core copyright industries"—i.e., businesses whose "primary purpose is to create, produce, distribute, or exhibit copyright materials"—and determined that they contributed more than \$1.3 trillion to U.S. Gross Domestic Product ("GDP"). ³⁷ These businesses rely on the Copyright Act to protect their creations. Congressman Lamar Smith explained:

Over the past 25 years, perhaps no group of industries has been more responsible for the sustained growth in our economy than those who rely on strong patent, trademark, and copyright protections. Today, our technology, entertainment, and productivity-based enterprises stand as pillars of our economic and export strength. They employ 18 million Americans and account for 40 percent of our economic growth. ³⁸

³⁶ Robert Stoner and Jessica Dutra, *Copyright Industries in the U.S. Economy: The 2022 Report*, IIPA at *29, Dec. 2022, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4453588.

³⁷ Stephen E. Siwek, Copyright Industries in the U.S. Economy: The 2018 Report p.3 (2018), available at https://iipa.org/files/uploads/2018/12/2018CpyrtRptFull.pdf.

³⁸ 110 Cong. Rec. H10238 (daily ed. Sept. 27, 2008) (statement of Rep. Smith).

Research and development of AI systems are incentive dependent.³⁹ There is a direct link between economic incentives and technology development.⁴⁰ McKinsey & Co found "that generative AI could add the equivalent of between \$2.6 to \$4.4 trillion annually across the 63 use cases analyzed—by comparison, the United Kingdom's entire [GDP] in 2021 was \$3.1 trillion."⁴¹ This McKinsey study shows that generative AI systems create incentives for economic investment and are important for U.S. innovation.

_

³⁹ Daniel Spulber, *How Patents Provide the Foundation of the Market For Inventions*, 11 J. COMP. L. & ECON. 271, 324 (2014) ("[the patent grant] provides the basis from further developing the invention, commercializing the technology, introducing innovations to the market.")

⁴⁰ Id at 295.

⁴¹ Michael Chu et al., *The Economic Potential of Generative AI: The Next Productivity Frontier*, MCKINSEY AND Co., (2023), https://www.mckinsey.com/~/media/mckinsey/business%20functions/mc

https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our

^{%20}insights/the%20economic%20potential%20of%20generative%20ai%20the%20next%20pro ductivity%20frontier/the-economic-potential-of-generative-ai-the-next-productivity-frontiervf.pdf?shouldIndex=false [https://perma.cc/JVM9-3YJR] at 3.

In 2022, the global entertainment and media industry was valued at \$2.32 trillion and is expected to increase to \$2.8 trillion by 2027. 42

This includes film (\$26 billion), 43 television (\$271.12 billion), 44 music (\$26.2 billion), 45 video games (\$187.7 billion), 46 art (\$67.8 billion), 47 and

- ⁴³ Patrick Frater, Global Box Office Notched 27% Gain in 2022 to Hit \$26 Billion Total, Research Shows, VARIETY (Jan. 5, 2023), https://variety.com/2023/data/news/global-box-office-in-2022-1235480594/.
- ⁴⁴ Global Television Broadcasting Market Surges to \$287.81 Billion in 2023, Fueled by Robust Growth in Subscription-Based Revenue Models, YAHOO! FINANCE (Aug. 1, 2023), https://finance.yahoo.com/news/global-television-broadcasting-market-surges-125300290.html.
- ⁴⁵ Richard Smirke, *IFPI Global Report 2023: Music Revenues Climb 9% to \$26.2 Billion*, BILLBOARD (Mar. 21, 2023), https://www.billboard.com/pro/ifpi-global-report-2023-music-business-revenue-market-share/.
- ⁴⁶ Akshita Toshniwal, *Video-Gaming Revenue To Grow 2.6% In 2023 On Console Sales Strength Report*, REUTERS (Aug. 8, 2023), https://www.reuters.com/technology/video-gaming-revenue-grow-26-2023-console-sales-strength-report-2023-08-08/.
- ⁴⁷ Scott Reyburn, Art Market Has Climbed Above Prepandemic Level, Major Study Says, THE NEW YORK TIMES (updated April 6, 2023),

⁴² Perspectives from the Global Entertainment & Media Outlook 2023–2027, PWC (June 21, 2023), https://www.pwc.com/gx/en/industries/tmt/media/outlook/insights-and-perspectives.html#:~:text=People%20may%20be%20spending%20more,2023%20to%200.45%25%20in%202027.

advertising (\$615.2 billion). ⁴⁸ The U.S. is a top player in each of these markets. Software is heavily related to these industries where the U.S. is similarly a leading presence with a \$1.52 trillion market. ⁴⁹ This lead cannot be understated. All of the top fifteen highest grossing films of all time are U.S. productions. ⁵⁰ The highest—*Avatar*—known for its groundbreaking use of advanced visual effects based on AI and Computer generated imagery ("CGI"), reached \$2.93 billion in the box office with \$785.22 million generated domestically. ⁵¹ In the software realm, forty years of Microsoft Word has encouraged foreign cultures to

https://www.nytimes.com/2023/04/04/arts/design/ubs-art-basel-report-art-market.html

⁴⁸ Global Advertising Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028, IMARC GROUP, https://www.imarcgroup.com/global-advertising-market#:~:text=Market%20Overview%3A,US%24%20615.2%20Billio n%20in%202022 (last visited Nov. 22, 2023).

⁴⁹ Software Services Global Market Report 2023, YAHOO! FINANCE (June 28, 2023), https://finance.yahoo.com/news/software-services-global-market-report-145900397.html.

⁵⁰ Adam Bankhurst, *The 15 Highest Grossing Movies of All Time*, IGN (updated Nov. 16, 2023), https://www.ign.com/articles/highest-grossing-movies-of-all-time.

⁵¹ *Id*.

learn and borrow English terms and inspired poetic creativity.⁵² This exemplifies the international hunger for American creative works, which contributes to the U.S. economy. The increasing use of AI in generating these works saves companies time and increases the quantity and quality of American IP.

Copyright protections drive these markets. Generating income from a film, for example, requires the securing of a pristine chain of title, beginning with the underlying script and continuing through the cast and crew to domestic and foreign distributors (all already relying, and more so in the future, on technology tools, such as AI systems).⁵³ In contrast, works that lack copyright protection fall into the public domain, allowing the public to copy, modify and distribute without compensation, and hence, provide no incentive for creation. Copyright

_

⁵² Victoria Woollaston, *The Surprisingly Subtle Ways Microsoft Word Has Changed How We Use Language*, BBC (Oct. 25, 2023), https://bbc.com/future/article/20231025-the-surprisingly-subtle-ways-microsoft-word-has-changed-the-way-we-use-language.

Mark Litwak, Attention, Filmmakers: Here's What You Need to Know About Chain of Title (and Why You Need It), INDIEWIRE (Oct. 7, 2015), https://www.indiewire.com/features/craft/attention-filmmakers-heres-what-you-need-to-know-about-chain-of-title-and-why-you-need-it-57004/.

protection not only benefits authors and owners, but also influences other players and stakeholders involved from inception to the final work product, through distribution. ⁵⁴

III. GLOBAL IMPACT OF U.S. CREATIVE INDUSTRIES IS AT RISK

1. Copyright Nullification in AI Works Drives Creative Industry Offshore

Copyrights fund innovation. Declining to extend copyright to AI-generated works could motivate companies to seek protected creative opportunities abroad and invest offshore where their IP will be better protected. ⁵⁵ This trend can lead to a drain of talent and resources from the U.S. and hamper the country's ability to innovate and grow.

⁵⁴ E.g., What is the Public Domain?, COPYRIGHTLAWS.COM (Mar. 7, 2023), https://www.copyrightlaws.com/what-is-the-public-domain/.

⁵⁵ Annelise Gilbert, Tech Group Warns AI Copyright Rules Could Send Innovation Abroad, BLOOMBERG LAW (Oct. 31, 2023), https://news.bloomberglaw.com/ip-law/tech-group-warns-ai-copyright-rules-could-send-innovation-abroad. See also Barbara A. Ringer, Role of the United States in International Copyright-Past, Present, and Future, 56 GEO. L. J. 1050, 1052 (1968).

Investors swarm to copyright friendly jurisdictions.⁵⁶ A rejection of AI inventorship may put the United States at a competitive disadvantage and drive innovation offshore.⁵⁷ The U.S. is already facing remarkable competition from China. China has been investing billions of dollars to become, "the world's premier artificial intelligence innovation center."⁵⁸ Policies welcoming technological investment have strong impacts, thus other countries are taking a closer look at the AI inventorship question.⁵⁹ AI advancements lead to greater "productivity, high levels of employment, and more broadly shared prosperity."⁶⁰

⁵⁶ Khan, B. Z., 2005, The Democratization of Invention: Patents and Copyrights in American Economic Development, 1790-1920, Cambridge, MA: NBER.

⁵⁷ See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974).

⁵⁸ Paul Mozur, *Beijing Wants AI to Be Made in China by 2030*, N.Y. TIMES (July 20, 2017), https://www.nytimes.com/2017/07/20/business/china-artificial-intelligence. html?mcubz=0&_r=0

⁵⁹ *Id.*

⁶⁰ Executive Office of the President, *Artificial Intelligence, Automation, and the Economy* (2016) at 3, https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/Artificial-Intelligence-Automation-Economy.PDF

Embracing AI in copyright law will promote innovation and help keep investments in the U.S.

The Amici Curiae identified herein believe that copyright protection should be extended to AI assisted works to incentivize the U.S. tech industry to keep innovating and developing. If copyright protection is weakened, technological innovation and development may move abroad to safeguard inventors' investments. A rejection in this regard will lead heavily reliant AI industries to forfeit their rights, as many of their creative works could enter the public domain.

Furthermore, these U.S. industries may be forced to adhere to outdated technology, which could lead to their demise, while foreign competitors are able to embrace more innovative approaches. If AI-generated creative works are denied copyright protection, the U.S. risks losing its economic and creative edge to other pioneering countries, diminishing U.S. global role as an innovation leader.

2. Global Comparative Trend Of Copyrighting Autonomous Works: U.S. Must Not Lag Behind

An increasing number of jurisdictions are acknowledging the pivotal role of technology in the creation of IP works. The Copyright,

Designs and Patents Act 1988 ("CDPA") in the United Kingdom, as an

example, recognizes and defines computer-generated works as lacking a human author. ⁶¹ As a consequence, the CDPA assigns the author of such works as the person "by whom the arrangements necessary for the creation of the work are undertaken." ⁶² This solution preserves the copyright, rather than automatically rejecting the work and forcing it into the public domain. The UK approach reflects an understanding of the future implications of authorship and specifically recognizes the need for copyright in works produced by AI; this Court should follow suit. ⁶³

⁶¹ Copyright, Designs and Patents Act (CDPA) 1988, s.178 defines a "computer-generated" work as one that is "generated by computer in circumstances such that there is no human author of the work."

⁶² CDPA 1988, s.9(3).

Gall For Views: Copyright And Related Rights, The Intelligence Call For Views: Office of the United Kingdom, https://www.gov.uk/government/consultations/artificial-intelligence-and-intellectual-property-call-for-views/artificial-intelligence-call-for-views-copyright-and-related-rights (last updated Mar. 23, 2021) (("When proposed in 1987...[the CDPA] was expressly designed to do more than protect works created using a computer as a 'clever pencil'. Instead, it was meant to protect material such as weather maps, output from expert systems, and works generated by AI.") (emphasis added)).

English courts have also held by common law that such a work is copyrightable, even prior to the CDPA. In Express Newspapers v. Liverpool Daily Post, the High Court of Justice held that where an individual writes a computer program and that program subsequently creates its own works, those works are entitled to copyright protection with the individual designated as the author. ⁶⁴ In Nova Productions v. Mazooma Games, a case following the CDPA, the High Court held that the composite frames at issue were generated by a computer program that was written by a person, thus undertaking the arrangements necessary for the creation of circumstances for a valid copyright where there was no human author for the works. 65 Autonomous AI that independently creates a new work without a human's immediate input can be traced back to the principle that required "creative efforts of the mind" through construction, training, and more. 66

⁶⁴ Express Newspapers Plc v Liverpool Daily Post and Echo Plc and others, [1985] 3 All ER 680.

⁶⁵ Nova Productions Ltd. v. Mazooma Games Ltd & Others, [2007] EWCA Civ 219.

⁶⁶ Barry Scannell, When Irish AIs are Smiling: Could Ireland's Legislative Approach be a Model for Resolving AI Authorship for EU

Several other countries, such as Ireland, ⁶⁷ New Zealand, ⁶⁸ India, ⁶⁹ South Africa, ⁷⁰ and Hong Kong, ⁷¹ have adopted the same legal approach. The Ireland Copyright and Related Rights Act, as another example, defines "author" as the person who creates a work and includes: "(f) in the case of a work which is computer-generated, the person by whom the arrangements necessary for the creation of the work are undertaken." Many other Member States of the European Union presume authorship in the person indicated as the author on or with the published work unless proven otherwise and the Berne

Member States?, 17 J. OF INTELL. PROP. L. & PRAC. 727, 736-37 (2022).

⁶⁷ The Copyright and Related Rights Act of 2000 §§ 2(1), 21(f).

⁶⁸ Copyright Act 1994 §§ 2(1), 5(2)(a).

⁶⁹ The Copyright Act, 1957 Ch. 1, § 2(d)(vi).

⁷⁰ Copyright Act, 1978 § 1(1).

⁷¹ Copyright Ordinance (Chapter 528) Pt. 2, Div. 1, § 11(3).

⁷² The Copyright and Related Rights Act of 2000 §§ 2(1), 21(f) (see also: (a) in the case of a sound recording, the producer; (b) in the case of a film, the producer and the principal director;").

Convention validates these legal presumptions.⁷³ This favorable legislation grant these jurisdictions a significant advantage.⁷⁴

Other anthropocentric civil law jurisdictions, such as China, have also reinterpreted their laws to protect AI produced works, adapting existing IP laws to accommodate AI advancements. ⁷⁵ Chinese courts have recently established legal precedents on the copyrightability of AI-generated content, marking a shift from past approaches ⁷⁶ to encourage

⁷³ European Commission, Directorate-General for Communications Networks, Content and Technology, Hartmann, C., Allan, J., Hugenholtz, P. et al., Trends and developments in artificial intelligence – Challenges to the intellectual property rights framework – Final report, Publications Office of the European Union, 2020, https://data.europa.eu/doi/10.2759/683128; see also, P. Bernt Hugenholtz & João Pedro Quintais, Copyright and Artificial Creation: Does EU Copyright Law Protect AI-Assisted Output?, 52 INT'L REV. OF INTELL. PROP. & COMPETITION L. 1190, 1210 (2021).

⁷⁴ See, e.g., David Elliot, AI Represents Huge Opportunity for NI Tech Sector – Conference, BUSINESSLIVE (Oct. 27, 2023), https://www.business-live.co.uk/technology/ai-represents-hugeopportunity-ni-27995031.

⁷⁵ GE CHEN, COPYRIGHT AND INTERNATIONAL NEGOTIATIONS: AN ENGINE OF FREE EXPRESSION IN CHINA? 21–32 (2017).

⁷⁶ Opinions of the Supreme People's Court on Regulating and Strengthening the Applications of Artificial Intelligence in the Judicial Fields, § 19, 12 Aug. 2022.

some AI designers' and users' creativity,⁷⁷ hinging copyright recognition on traditional elements defining a "work" under copyright law.⁷⁸ In the 2018 case of *Film v. Baidu*, the Beijing Internet Court acknowledged that the creation of these reports involves significant contributions from both software developers and users, endowing the reports with valuable dissemination potential.⁷⁹ Consequently, to encourage the active distribution of such works by software users, the court opined that AI-generated content should receive legal protection.⁸⁰

In the 2019 case of *Tencent v. Shanghai Yingxun*, the Nanshan District People's Court in Shenzhen found that the generative AI "Dreamwriter" produced a valid copyright because, notwithstanding the fact that the AI independently generated a complex article in two minutes, software does not run automatically for no reason or with self-

<sup>See, e.g., Beijing Film Law Firm v. Beijing Baidu Netcom Technology
Co., Ltd, Beijing Internet Court (2018) Beijing 0491 Min Chu No.
239. For the statutory basis, see the Copyright Act of the People's Republic of China, Art. 2, 2020.</sup>

⁷⁸ *Id*.

⁷⁹ *Id*.

⁸⁰ *Id*.

awareness.⁸¹ Instead, Tencent's team of humans selected and arranged "preparatory work" towards the AI's process.⁸²

In the 2023 case of *Li v. Liu*, the Beijing Internet Court not only ruled that an AI-generated image was an artwork that could be copyrighted but also found that the copyright should be attributed to the natural person or legal entity that directly used AI technology to generate the content. ⁸³ This is because the plaintiff "made a certain degree of intellectual investment" by the way in which she set up prompts, created parameters, and designed the presentation of the image. ⁸⁴ The court highlighted the importance of encouraging creation

⁸¹ Shenzhen Tencent Computer System Co., Ltd v. Shanghai Yingxun Technology Co. Ltd, People's Court of Nanshan (District of Shenzhen) (2019) Yue 0305 Min Chu No. 14010.

⁸² Id. See also, Zhou Bo, Artificial Intelligence and Copyright Protection
--Judicial Practice in Chinese Courts, WIPO,
https://www.wipo.int/aboutip/en/artificial_intelligence/conversation_ip_ai/pdf/ms_china_1_en.pd
f.

⁸³ *Li v. Liu*, Beijing Internet Court (2023) Beijing 0491 Min Chu No. 11279.

⁸⁴ *Id*.

("personalized expression") and of keeping copyright laws in line with new technologies.⁸⁵

This approach of a so-called "AI-assisted" work effectively gives leeway to the Chinese standard for human input. Such legal practices are poised to stimulate innovation among AI designers and users over time. This shift in attractiveness could inadvertently support China, especially if U.S. courts adhere to more traditional legal stances, like those laid out in the District Court's decision.

Copyrights, while national, are integral to a globally harmonized system. Businesses depend on international consistency, suggesting the need for an internationally unified approach to AI copyrightability. Countries, like those mentioned above, are primed to economically benefit as hotspots for AI-focused industries. From a comparative law perspective, the U.S. would most benefit from following the path of fellow common law countries and recognize a valid copyright in works produced by autonomous AI. We submit that it can be done under the current U.S. Act.

⁸⁵ *Id*.

IV. GRANTING COPYRIGHT TO GENERATIVE AI USERS SUPPORTS DISABILITY ACCOMMODATION

1. AI is an Important Tool for Creative People with Disabilities to Protect Their Creative Works

Accommodations for people with disabilities may include specialized equipment based on an individual's needs. ⁸⁶ Given the scope of necessary accommodations, AI can be seen as a tool or specialized equipment that helps those with disabilities create. A painter with restricted hand and arm mobility can dictate their creative vision to a digital AI, which then reproduces the artwork on a canvas using the specified details. ⁸⁷ MidJourney, a generative AI company, helped the artist Sean Aaberg, famously known for the dark board game design imagery of *Dungeon Degenerates*, continue his artistic career and passion after suffering a stroke in 2016. ⁸⁸ Aaberg was able to use the AI

⁸⁶ Title I of the Americans with Disabilities Act (ADA), 42 U.S.C. §§ 12111 (9). *Americans with Disabilities Act* (September 25, 2008), https://www.dol.gov/general/topic/disability/ada.

⁸⁷ See generally, What is AI Art? How Art Generators Work (2023), https://www.elegantthemes.com/blog/design/what-is-ai-art#:~:text=AI%20art%2C%20or%20generative%20AI%2C%20involves%20using%20artificial%20intelligence%20to,art%20forms%20using%20text%20prompts.

⁸⁸ Dale Rappaneau, Art-generating AI as an accessibility tool for disabled artists (January 25, 2023),

to create his unique images despite his disability.⁸⁹ His story is a testament to how AI is helping those with disabilities. AI assistance should be encouraged and protected, especially since 27% of adults in the U.S. are living with some form of a disability.⁹⁰

The Americans with Disabilities Act ("ADA") prohibits discrimination against people with disabilities in several areas, including employment. 91 In 2020, there were approximately 2.57 million artists in the U.S. workforce. 92 It is reasonable to assume that an artist falls under the scope of employee, whether they work for a company or as independent contractors. Under the ADA, employers are required to

https://techtualist.substack.com/p/art-generating-ai-as-an-accessibility (images of Aaberg's artwork using MidJourney can also be seen here).

⁸⁹ *Id*.

 $^{^{90}}$ Disability Impacts All of $U\!s,$ https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disabilityimpacts-all.html

⁹¹ Americans with Disabilities Act (September 25, 2008), https://www.dol.gov/general/topic/disability/ada

⁹² Artist in the US Workforce (2020), https://www.americansforthearts.org/by-program/reports-and-data/legislation-policy/naappd/artists-in-the-us-workforce-2006-2020#:~:text=The%20U.S.%20Bureau%20of%20Labor,up%20from%203. 7%25%20in%202019.

provide reasonable accommodations or adjustments to qualified job applicants and employees with disabilities to enable them to successfully perform their job. 93 Courts should recognize AI as a needed accommodation.

V. NEW U.S. COPYRIGHT OFFICE GUIDELINES FOR AI-GENERATED WORKS CREATES A HUMAN CONTRIBUTION MANDATE WHICH MAY BE IMPRACTICAL

The U.S. Copyright Office guidelines⁹⁴ are somewhat paradoxical: human contributions must be demonstrated within the creative works generated by AI. For example, in a case where a human made significant changes to both the formulation of the idea and the choice and alteration of the result, **copyright was not granted**.⁹⁵ Additionally, in a case where the AI creation was based on an original image and AI was used as an additional means of expression, no copyright was

_

⁹³ Americans with Disabilities Act (September 25, 2008), https://www.dol.gov/general/topic/disability/ada

⁹⁴ Copyright Registration Guidance: Works Containing Material Generated, by Artificial Intelligence, 88 Fed. Reg. 16,190, 16,192 (Mar. 16, 2023).

⁹⁵Registration Decision on Zarya of the Dawn (Feb. 21, 2023) https://www.copyright.gov/docs/zarya-of-the-dawn.pdf.

granted either. ⁹⁶ Even in a case where AI was used just as a tool by an author with a disability, **copyright was not granted**. ⁹⁷

According to these rules, copyright will never be granted to the creations of artificial intelligence. Adherence to these guidelines, which do not recognize copyright for the outputs of artificial intelligence, will nullify any copyright protection from AI creations leading to disastrous consequences, as described here.

We hope that this court will reverse the District Court's decision and determine that the work product of AI systems is copyrightable, and that the creator is the significant contributor. Any other result discriminates against creators using AI.

⁹⁶ Review Board Decision on SURYAST (Dec. 11, 2023) https://www.copyright.gov/rulings-filings/review-board/docs/SURYAST.pdf

⁹⁷ U.S. Copyright Office Application - 1-13076082141 AI Machinations Sub Title: Tangled Webs and Typed Words, filed herewith in the Addendum

Dated: January 26, 2024 By: /s/Ryan N. Phelan

Ryan N. Phelan Marshall, Gerstein & Borun LLP 233 South Wacker Drive Suite 6300, Chicago, IL 60606-6357

Phone: 312-474-6607

E: rphelan@marshallip.com

Counsel for Amici Curiae

CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure 32(g), I certify

the following:

This brief complies with the type-volume limitation of Federal

Rule of Appellate Procedure 29(a)(5), because this brief contains 6,496

words, excluding the parts of the brief exempted by Federal Rule of

Appellate Procedure 32(f) and D.C. Circuit Rule 32(e)(1).

This brief complies with the typeface requirements of Federal

Rule of Appellate Procedure 32(a)(5) and the type-style requirements of

Federal Rule of Appellate Procedure 32(a)(6), because this brief has

been prepared in a proportionately spaced typeface using Microsoft

Word in 14-point Century Expanded BT font.

DATED: January 26, 2024

MARSHALL, GERSTEIN & BORUN

LLP

By: /s/Ryan N. Phelan

Ryan N. Phelan

Counsel for Amici Curaie

39

CERTIFICATE OF SERVICE

I hereby certify that, on January 26, 2024, I electronically filed the foregoing notice with the Clerk of the Court for the U.S. Court of Appeals for the District of Columbia Circuit via the CM/ECF system.

Participants in the case who are registered CM/ECF users will be served by that system.

/s/ Ryan N. Phelan

Ryan N. Phelan

ADDENDUM

TABLE OF CONTENTS

LETTER FROM DEPARTMENT OF VETERANS AFFAIRS (OCT. 17, 2023)	.ADD. 1
U.S. COPYRIGHT OFFICE APPLICATION - 1-13076082141	
AI MACHINATIONS SUB TITLE: TANGLED WEBS AND	
TYPED WORDS	ADD. 3



DEPARTMENT OF VETERANS AFFAIRS

VA Southern Nevada Healthcare System 6900 North Pecos Road North Las Vegas, Nevada 89086

10/17/2023

In Reply Refer To: 593/

To Whom It May Concern,

I am writing on behalf of my patient, Elisa Rae Shupe, a career veteran with a 100% permanent and total disability rating, to provide professional insight into the therapeutic benefits of creative writing and using assistive technologies like ChatGPT to assist in the treatment of their mental health conditions.

Diagnosed Conditions:

- * C-PTSD (SCT 313182004)
- * Bipolar 1 Disorder (SCT 371596008)
- * Borderline Personality Disorder (SCT 20010003)
- * Chiari 1 Malformation (SCT 253185002)
- * Gender Dysphoria (SCT 93461009)
- * Generalized Anxiety Disorder (SCT 21897009)
- * Panic Disorder (SCT 371631005)

My patient faces significant cognitive, emotional, and mental challenges due to these serious medical conditions.

Cognitive Benefits:

Engaging in creative writing offers a potential avenue for Elisa Rae Shupe to organize thoughts and possibly enhance cognitive functions. Given her diagnosed conditions, this structured activity could be crucial for maintaining and preserving mental clarity and focus.

Emotional Outlet:

Creative writing is a potent emotional outlet for Elisa Rae Shupe, allowing them to express, explore, and manage emotions safely and constructively.

Narrow Focus:

Elisa Rae Shupe demonstrates a narrow range of interests, a feature often observed in individuals with Asperger's syndrome. Creative writing is a positive channel for this focus, diverting energy from potentially self-destructive behaviors.

Personalized Creation Process:

Elisa Rae Shupe finds creating most effective when she can convey her ideas to an Al tool like ChatGPT. The tool then translates these concepts into well-crafted language that meets the quality guidelines of author platforms. This personalized approach leverages her focused interests, optimizes her creative output, and preserves her dignity, further enhancing her well-being.

Preservation of Authentic Voice:

It's crucial to note that AI writing tools like ChatGPT do not replace Elisa Rae Shupe's unique writing voice; rather, they give rise to it. These technologies serve as a medium through which she can more effectively express her authentic self, enriching her creative works and contributing to her self-worth.

Role of Assistive Technology:

Technologies such as ChatGPT enable Elisa Rae Shupe to produce literary works that contribute to her sense of accomplishment and overall wellness. These tools specifically address and supplement her cognitive challenges, making it feasible for her to participate fully in this therapeutic writing process.

Social and Emotional Benefits:

Using assistive technologies like ChatGPT supports Elisa Rae Shupe's creative writing endeavors, significantly contributing to her social participation in society and bringing about feelings of self-worth. Through these tools, she gains a constructive avenue for societal engagement and personal fulfillment by overcoming cognitive barriers.

Role of Assistive Technology in Stress Management:

Without assistive technologies like ChatGPT, the task of writing becomes overwhelmingly stressful for Elisa Rae Shupe, often leading to debilitating episodes of deep depression and mood fluctuations. These high-tech tools facilitate the creative process and are critical in managing stressors. By leveraging ChatGPT and other assistive technologies, Elisa Rae Shupe can engage in creative writing as a therapeutic exercise without the accompanying emotional toll.

Conclusion:

In conclusion, creative writing, facilitated by assistive technologies, has greatly benefited Elisa Rae Shupe's mental well-being. I strongly advocate for their continued use of these tools as part of a holistic approach to managing their mental health.

Sincerely,

Dr. Agapito Racoma

Northwest Primary & Mental Health Clinic

3968 N. Rancho Drive

North Las Vegas, NV 89130

October 19, 2023

Elisa Shupe 1501 Rock Springs Dr Apt 367 Las Vegas, NV 89128-3583 United States

Correspondence ID: 1-60SU5LA

RE: Main Title: AI Machinations Sub Title: Tangled Webs and Typed Words

Dear Elisa Shupe:

We initially contacted you by email on October 10, 2023 because your application failed to properly identify the material in this work that was generated by artificial intelligence ("AI"). In our email, we notified you that the claim would be refused unless you authorized us to make necessary amendments to the application.

We explained that to be protected by copyright, a work must have been created by a human author. Material that is generated by an AI program does not satisfy this requirement, even if the material was generated in response to numerous and/or complex prompts entered by a human being. The Copyright Office will not register material generated by an AI program.

You responded to our email on October 11, 2023, but did not authorize us to exclude the material generated by AI. In subsequent correspondence with you on October 13, 2023, we explained that individuals who use AI technology in creating a work may claim copyright protection for their own contributions to that work and the AI-generated content that is more than de minimis should be explicitly excluded from the application. We explained that this may be done by entering "[description of content] generated by artificial intelligence" in the "Limitation of the Claim" section in the "Other" field, under the "Material Excluded" heading of the application. In addition, we also explained that since you did not enter "text generated by artificial intelligence" in the "Material Excluded" space when you completed the application, we needed your permission to add this phrase to the application for you. However, in your reply, you stated "I am unwilling to exclude any of the AI-generated material that aided me in overcoming my disabilities."

As a result, we must refuse this application because it was not submitted in proper form. In accordance with our practices, we will retain the application, copy, and non-refundable fee.

Although this work cannot be registered as you have submitted it, you may resubmit this claim on a new Standard Application, along with the \$65.00 filing fee, and copies of the works. Be sure to provide all of the required information on the application at the time of submission. If you reapply, please disregard the attached reply sheet.

Or, in the alternative, you have the right to appeal our refusal to register your claim as submitted. To do so, you must submit a request for reconsideration along with the \$350.00 filing fee. If you request reconsideration, please follow the instructions on the attached reply sheet.

This letter is for your information only; no response is necessary.

Sincerely,

Heather Windsor Literary Division

Office of Registration Policy & Practice

U.S. Copyright Office

Enclosures:

Reply Sheet



Use this sheet if you request reconsideration

How to request reconsideration:

- Send your written explanation of why the claim should be registered or why it was improperly refused.
- Be sure to include the Correspondence ID Number (listed under the bar code above) on the first page of your Request.
- Indicate whether you are requesting a "First Reconsideration" or "Second Reconsideration."
- **Submit your request ONLINE:** We strongly recommend sending all requests for reconsideration via email following these steps:

EMAIL YOUR REQUEST (BUT NOT THE REQUIRED FEE) to:

reconsideration@copyright.gov.

- o The subject line should say "First Reconsideration" or "Second Reconsideration"
- Once your email request is received, you will be contacted with instructions on how to submit the required fee.
- Failure to send your request for reconsideration to the above email address will result in a delayed response.

IMPORTANT NOTE: Your request and the required fee must be received no later than three months after a refusal is issued.

- Alternatively, you may submit your request VIA MAIL:
 - o **IMPORTANT NOTE**: Your request must be postmarked (via the U.S. Postal Service) or dispatched (via commercial carrier, courier, or messenger) no later than three months after a refusal is issued.
 - o Enclose the required fee.
 - Address your request to:

FIRST RECONSIDERATION or SECOND RECONSIDERATION U.S. Copyright Office MCA Division P.O. Box 71380 Washington, DC 20024-1380

First Request for Reconsideration (\$350.00 per application): The Registration Program Office considers the first request. If it upholds the refusal, you may submit a second request.

Second Request for Reconsideration (\$700.00 per application): The Copyright Office Review Board considers the second request. The Board consists of the Register of Copyrights and the General Counsel (or their respective designees), and a third member appointed by the Register. The Board's decision constitutes final agency action.

Notification of decision: The Copyright Office will send all notifications of its decisions by email to the email address provided in the record and/or in the request for reconsideration. If no email address is provided, the Office will send its decision via mail.

RECONSIDERATION FEES:

First Request \$350 per application

Second Request \$700 per application

READ MORE:

- U.S. Copyright Office Administrative Appeals: https://copyright.gov/comp3/chap1700/ch1700-administrative-appeals.pdf
- U.S. Copyright Office Fees: https://copyright.gov/circs/circ04.pdf
- Copyright Basics: https://copyright.gov/circs/circ01.pdf
- Copyright Registration: https://copyright.gov/circs/circ02.pdf