Copy Rights: Allow Intellectual Property Rights in A.I. Work

By “Coach Vance” Trefethen

***Resolved: The United States federal government substantially reform the use of Artificial Intelligence technology***

Case Summary: This plan reforms intellectual property (IP) rights (patents, copyrights) on work produced by artificial intelligence. Currently the output of an AI system cannot be protected as an original invention because it’s not created by a human being. This plan makes it possible to protect it under IP law.

Note #1: Please be careful to distinguish this case from patenting AI technology, which is currently done in the Status Quo and is a whole separate issue from this case. Patents on AI technology means patenting the process or “how the AI system works,” and current law allows it (in some cases). This case is about patenting the output, the end resulting newly created “thing” (chemical formulas, works of art, recipes, etc.) or “what the AI produced.” The AI system “how” can be patented under current law in certain cases. The newly created AI output “thing it produced” cannot be. Example: You might be able to patent an AI system for producing new music. But you could not copyright one of the new songs it writes.

AI output should be protected as a “Work Made For Hire” under existing legal doctrines governing creative output produced by employees on the job. Today, many companies hire workers to create things, paying them a regular salary to compensate them for all of their outputs. When they create something that is protected by IP rights (e.g. a new mechanical invention, a new pharmaceutical, a new work of music or art), the employer owns the IP rights.

The employer paid for the creative worker’s time and supplied the materials, so the employer can claim the patents or copyrights that result, since that’s what the employer was paying for when they hired the worker. AI is “employed” by its designers to create things, so its designers should own the IP on AI outputs. The designers of the AI can contract with others, sell licenses to use the AI to produce things, etc. and work out contractually how they will get paid for what the AI produces.

Note #2: Do not confuse this case with other legal issues surrounding the “inputs” to creative AI. There is also a separate controversy in the legal world about potential misuse or copyright infringement when AI looks at inputs taken from copyrighted works to use as material from which it then creates its own original work. For example, imagine all the songs of the Beatles were “read” by an AI system, which then writes its own original song based on what it “learned” from its input. The new song itself does not infringe on the copyrighted Beatles music, but was it a misuse of the copyrighted music to have the AI “read” it and “learn” by imitating it or “copying” it internally for its own processing? We don’t know and for the purpose of this case, we don’t care. All we care about here is the AI (and its owner, employer, author…?) being able to copyright the new song that came out.

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Copy Rights: Allow Intellectual Property Rights for A.I. Works

The first computer-written song was a tune called “Push Button Bertha,” written, believe it or not, in 1956. It never made the top 40, but it was an original work. And that’s where the problems started, because the US Copyright Office refused to recognize a claim to intellectual property rights on a work of music created by a machine. We’ll show you the comparative advantages of changing that policy as we affirm that: The United States Federal Government should substantially reform the use of artificial intelligence technology.

OBSERVATION 1. DEFINITIONS

Substantial

Merriam Webster Online Dictionary copyright 2021. <https://www.merriam-webster.com/dictionary/substantially> (accessed 28 May 2021)

**:**considerable in quantity **:**significantly great

Reform

Merriam Webster Online Dictionary copyright 2021 <https://www.merriam-webster.com/dictionary/reform> (accessed 28 May 2021)

**:**to put or change into an improved form or condition

Artificial Intelligence

Merriam Webster Online Dictionary copyright 2021. <https://www.merriam-webster.com/dictionary/artificial%20intelligence> (accessed 28 May 2021)

**:**the capability of a machine to imitate intelligent human behavior

Intellectual Property or I.P.

Stanford Encyclopedia of Philosophy 2018. “Intellectual Property” last updated 10 Oct 2018 <https://plato.stanford.edu/entries/intellectual-property/>

Intellectual property is generally characterized as non-physical property that is the product of original thought. Typically, rights do not surround the abstract non-physical entity; rather, intellectual property rights surround the control of physical manifestations or expressions of ideas. Intellectual property law protects a content-creator’s interest in her ideas by assigning and enforcing legal rights to produce and control physical instantiations of those ideas.

OBSERVATION 2. INHERENCY, the structure of the Status Quo. Some key facts:

FACT 1. Unprotected. US intellectual property law doesn’t recognize output from artificial intelligence

SHALEEN J. PATEL & SUSHMITHA RAJEEVAN 2020 (both are attorneys with Pepper Hamilton LLP law firm in Boston) Aug 2020 “Copyright Considerations In Artificial Intelligence” <https://www.lawjournalnewsletters.com/2020/08/01/copyright-considerations-in-artificial-intelligence/?slreturn=20210508232108> (brackets in original) (accessed 8 June 2021)

Section 306 of the Compendium of U.S. Copyright Office Practices provides that “[t]he U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being.” As such, no software program will be recognized as an author of a copyrightable work. In particular, the Compendium proclaims that “copyright law only protects ‘the fruits of intellectual labor’ that ‘are founded in the creative powers of the mind.’” Crucially, the Copyright Office will refuse to register a copyright claim if a human being did not create the work.

FACT 2. Chilling effect. Absence of IP protection for AI generated works can have a chilling effect on its development

Corrs Chambers Westgarth 2020. (Australian intellectual property law firm) Artificial intelligence and copyright: ownership issues in the digital age 21 Sept 2020 <https://corrs.com.au/insights/artificial-intelligence-and-copyright-ownership-issues-in-the-digital-age> (accessed 7 June 2021)

The copyright system has been designed to protect and incentivise human intellectual effort. It does this by creating a framework in which, among other incentives, authors are rewarded financially for their work when it is used by others, and those who seek to circumvent this system are penalised. This framework is destabilised by the concept of AI authors – if AI-generated works are not protected by copyright because they have not been created by a human author then, theoretically, it follows that they could be freely exploited by anyone. This could have a chilling effect on investment in AI systems to produce creative outcomes.

OBSERVATION 3. We offer the following PLAN implemented by Congress, the President, the federal courts, the US Copyright Office, the US Patent & Trademark Office and any other necessary federal agencies.

1. Congress amends current law to allow assignment of Intellectual Property Rights for creative works made by artificial intelligence, by default to the creator/programmer of the AI or else by contractual arrangement among the creator and users.

2. Funding through existing budgets of existing agencies and general federal revenues.
3. Enforcement through federal courts, which will uphold our mandates and reverse any prior inconsistent court decisions.
4. Timeline: Plan takes effect one day after an affirmative ballot.
5. All Affirmative speeches may clarify

OBSERVATION 4. SOLVENCY.

Intellectual property rights for AI creative works are feasible and necessary

Russ Pearlman 2018 (Executive Vice President at Headstorm LLC, a technology consulting firm; M.S. Computer Science in Artificial Intelligence, B.S. Computer Science, A.B. Neurobiology with a minor in Psychology, all from Washington Univ in St. Louis) (no month given in the article date) Richmond Journal of Law & Technology; RECOGNIZING ARTIFICIAL INTELLIGENCE (AI) AS AUTHORS AND INVENTORS UNDER U.S. INTELLECTUAL PROPERTY LAW (accessed 6 June 2021) <https://www.kiip.re.kr/webzine/1809/resource/file/Library08.pdf>

For a work that satisfies both prongs of the test--whereby an AI causes the independent creation of eligible subject matter under its own authority-- the IP rights would be granted to the AI either as an author or an inventor. For example, if Automated Insights created a neural-network based AI that learned from training and ongoing teaching to create highly stylized stories and content, the AI itself would be named the author of the stories. However, such a suggestion begs the question of legal ownership of such rights since an AI is not currently considered a natural or legal person. Such a quandary can be resolved through a system of assignment of those rights. [**END QUOTE**] Today, many (if not most) works are authored or invented by natural persons and then assigned to legal persons such as business or government entities. In the world of copyright, such assignment occurs via implicit agreements (i.e., as a work-for-hire within the scope of employment), as a work specially ordered or commissioned as a collective work, or explicitly via employment or other contractual agreements. Such assignment of copyrights from natural persons to legal persons also limits the term of exclusive rights. On the patent side, assignment can occur via explicit agreements (such as employment or contractual agreements) or via implicit agreements (such as the “hired-to-invent” doctrine). If an AI were to be recognized as the author or inventor, a similar approach could be applied to assign the rights to natural persons or legal persons. [**HE GOES ON TO SAY LATER IN THE CONTEXT QUOTE:]** While the AI would be named author or inventor, the rights would immediately be assigned to: the creator/programmer of the AI, the user of the AI, or as a joint work. In all such cases, the assignment could be to a natural person or a legal person.

OBSERVATION 5. ADVANTAGES

ADVANTAGE 1. Massive economic benefits

A. The Link: IP protection is needed to increase AI innovation

Kalin Hristov written in 2016, published in 2017 (University of Science and Technology of China - School of Public Affairs, Heifei, China) “Artificial Intelligence and the Copyright Dilemma” written 1 Sept 2016, published 31 May 2017 IDEA – THE JOURNAL OF THE FRANKLIN PIERCE CENTER FOR INTELLECTUAL PROPERTY <https://ipmall.law.unh.edu/sites/default/files/hosted_resources/IDEA/hristov_formatted.pdf> (accessed 7 June 2021)

There is a considerable disadvantage to the release of independently generated AI creative works into the public domain. Without an established period of protection, there is no tangible incentive for developers of AI machines to continue creating, using, and improving their capabilities. Simply put, even if programmers and the companies for which they work have invested a substantial amount of time and money into the creation of AI machines, for the most part, they would not be able to enjoy copyright protection or the financial benefits associated with it. This trend could ultimately limit innovation by dissuading developers and companies from investing in AI research, resulting not only in the decline of AI but also in the decline of innovation across a number of related sectors.

B. The Impact: Public policy that accelerates AI innovation will have big economic impact

Iain M. Cockburn, Rebecca Henderson & Scott Stern 2018 (with the National Bureau of Economic Research) March 2018 “THE IMPACT OF ARTIFICIAL INTELLIGENCE ON INNOVATION” <https://www.nber.org/system/files/working_papers/w24449/w24449.pdf> (accessed 8 June 2021)

Second, while some applications of artificial intelligence will surely constitute lower-cost or higher-quality inputs into many existing production processes (spurring concerns about the potential for large job displacements), others, such as deep learning, hold out the prospect of not only productivity gains across a wide variety of sectors but also changes in the very nature of the innovation process within those domains. As articulated famously by Griliches (1957), by enabling innovation across many applications, the “invention of a method of invention” has the potential to have much larger economic impact than development of any single new product. Here we argue that recent advances in machine learning and neural networks, through their ability to improve both the performance of end use technologies and the nature of the innovation process, are likely to have a particularly large impact on innovation and growth. Thus the incentives and obstacles that may shape the development and diffusion of these technologies are an important topic for economic research, and building an understanding of the conditions under which different potential innovators are able to gain access to these tools and to use them in a pro-competitive way is a central concern for policy.

ADVANTAGE 2. Geopolitical Supremacy

A. The Link: Advancing AI technology is key to geopolitical supremacy in the escalating AI “arms race”

Johnny Ball 2020. (Special Projects writer for Spotlight and THE NEW STATESMAN) 4 Sept 2020 “The geopolitics of artificial intelligence” <https://www.newstatesman.com/spotlight/emerging-technologies/2020/09/geopolitics-artificial-intelligence> (accessed 8 June 2021)

The context for these initiatives is an escalating “AI arms race” between the world’s pre-eminent economic and military superpowers. As the US-China rivalry intensifies in the wake of Covid-19, leadership in AI has become a major global battleground. Advances in this technology promise to give the edge in terms of military and economic strength.
**[END QUOTE. HE GOES ON LATER IN THE ARTICLE TO SAY QUOTE:]**In 2019, an interim report from the US’s National Security Commission on Artificial Intelligence, chaired by the former Google chief executive Eric Schmidt, articulated this struggle for hegemony. “AI cannot be separated from emerging strategic competition with China and developments in the broader geopolitical landscape,” the report said.

B. The Impact: Human rights and national security.

**Quoting from the same National Security Commission report, Mr Ball in 2020 continues QUOTE:**

Johnny Ball 2020. (Special Projects writer for Spotlight and THE NEW STATESMAN) 4 Sept 2020 “The geopolitics of artificial intelligence” <https://www.newstatesman.com/spotlight/emerging-technologies/2020/09/geopolitics-artificial-intelligence> (accessed 8 June 2021)

It went on to detail China’s deployment of AI to “advance an autocratic agenda” and “commit human rights violations”, warning that AI technology could be used to launch disinformation campaigns, wage war and threaten critical national infrastructure. “The future of our national security and economy are at stake,” it said.

2A Evidence: Intellectual Property Rights

PHILOSOPHY / OVERVIEW

Intellectual Property is recognized by the Constitution because it’s important to human progress

Kalin Hristov written in 2016, published in 2017 (University of Science and Technology of China (USTC) - School of Public Affairs, Heifei, China) “Artificial Intelligence and the Copyright Dilemma” written 1 Sept 2016, published 31 May 2017 IDEA – THE JOURNAL OF THE FRANKLIN PIERCE CENTER FOR INTELLECTUAL PROPERTY <https://ipmall.law.unh.edu/sites/default/files/hosted_resources/IDEA/hristov_formatted.pdf> (accessed 7 June 2021) (ellipses in original)

Innovation has been a driver of human progress since the existence of mankind. Recognizing this, Article I of the U.S. Constitution states that “Congress shall have the power . . . to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”

Overview: Lack of IP protection for AI creativity is a significant problem, blocks innovation, and has no solution in SQ law

Kalin Hristov written in 2016, published in 2017 (University of Science and Technology of China (USTC) - School of Public Affairs, Heifei, China) “Artificial Intelligence and the Copyright Dilemma” written 1 Sept 2016, published 31 May 2017 IDEA – THE JOURNAL OF THE FRANKLIN PIERCE CENTER FOR INTELLECTUAL PROPERTY <https://ipmall.law.unh.edu/sites/default/files/hosted_resources/IDEA/hristov_formatted.pdf> (accessed 7 June 2021)

The recent development of machine learning capabilities has resulted in an increased number of AI generated works and an understanding that humans are no longer the only source of creativity or innovation. The outdated nature of the current U.S. Copyright Act, however, fails to reflect this contemporary reality, resulting in the release of a great number of AI generated works into the public domain. This trend does not benefit the programmers and owners of AI devices and limits their willingness to invest resources in the future development of AI. The consequences of this gap in copyright law are far reaching and may result in a decrease of valuable new works available to scholars, researchers, and consumers, and a significant delay in technological and artistic progress of modern society. As significant as this issue may be, it has yet to be effectively addressed and a need for a practical solution still exists.

MINOR REPAIR RESPONSES

Can’t work within existing legal system. Congressional action is needed

Diana Bikbaeva 2020. (Master of Laws, Univ of Illinois College of Law ) ILLINOIS BUSINESS LAW JOURNAL Summer 2020 CREATED TO CREATE: WHY AI-CREATED WORKS SHOULD BE COPYRIGHTABLE AS WORKS MADE FOR HIRE (accessed 9 June 2021) <http://publish.illinois.edu/illinoisblj/files/2020/06/9-Diana-Bikbaeva-AI-Copyright.pdf> (brackets added)

Application of the WMFH [Work Made For Hire] doctrine would best serve the justification for copyright protection for AI-created works because it grants copyright protection to the person organizing/commissioning the work made by another within the pre-defined scope of the task. However, the current WMFH doctrine would not yet allow for this since the relationship between the AI and the programmer does not fall squarely into the employer-employee categories described in the Copyright Act § 101(1). As suggested by the Supreme Court, the WMFH doctrine applies only in instances where the Congress has expressed a clear and explicit intent for it to apply. Because of the nature of the WMFH doctrine, combined with the Supreme Court’s jurisprudence on the matter, any expansion of this doctrine to AI-created works would need explicit statutory basis and would best be done through Congressional change.

INHERENCY

US law doesn’t allow for non-human authors, including AI

Russ Pearlman 2018 (Executive Vice President at Headstorm LLC, a technology consulting firm; n M.S. Computer Science in Artificial Intelligence, B.S. Computer Science, A.B. Neurobiology with a minor in Psychology, all from Washington Univ in St. Louis) (no month given in the article date) Richmond Journal of Law & Technology; RECOGNIZING ARTIFICIAL INTELLIGENCE (AI) AS AUTHORS AND INVENTORS UNDER U.S. INTELLECTUAL PROPERTY LAW (accessed 6 June 2021) <https://www.kiip.re.kr/webzine/1809/resource/file/Library08.pdf>



US Intellectual property law does not accept non-human authors

Dr. Shlomit Yanisky Ravid and Xiaoqiong Liu, written 2017, published in 2018, last revised in 2020. (Ravid - Professor of Law; Yale Law School, Information Society Project (ISP), Fellow; Ono Academic Law School, Israel (OAC), Senior Faculty; Fordham University School of Law, Visiting Professor; The Shalom Comparative Legal Research Center, SCLRC, OAC, Founder and Director. Liu - engineer holding a J.D. Fordham University School of Law; Fordham Intellectual Property Institute, Fellow) Cardozo Law Review, WHEN ARTIFICIAL INTELLIGENCE SYSTEMS PRODUCE INVENTIONS: THE 3A ERA AND AN ALTERNATIVE MODEL FOR PATENT LAW, posted online 13 Mar 2017, published in Cardozo Law Review 2018, last revised 25 Nov 2020 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931828> (accessed 6 June 2021)

According to a well-known phrase of patent law, anything under the sun, which is made by man, qualifies as patentable subject matter. This statement expresses one of the main challenges of patenting creations by sophisticated AI systems. US patent laws take only human inventors into account, defining “inventor” as “the individual or, if a joint invention, the individuals collectively who invented the subject matter of the invention.” “Joint inventor” and “co- inventor” “mean any one of the individuals who invented or discovered the subject matter of a joint invention.” The law does not consider the possibility of a nonhuman inventor. Precedents in related intellectual property issues, addressing copyright laws, have not considered nonhumans such as machines and animals to be creators within copyright law.

Creative outputs of AI cannot be protected under current US copyright law

Kalin Hristov written in 2016, published in 2017 (University of Science and Technology of China (USTC) - School of Public Affairs, Heifei, China) “Artificial Intelligence and the Copyright Dilemma” written 1 Sept 2016, published 31 May 2017 IDEA – THE JOURNAL OF THE FRANKLIN PIERCE CENTER FOR INTELLECTUAL PROPERTY <https://ipmall.law.unh.edu/sites/default/files/hosted_resources/IDEA/hristov_formatted.pdf> (accessed 8 June 2021)

Although the term “writings” is open to interpretation within U.S. copyright law, a great number of AI generated works often fall outside its scope by failing to satisfy all of its requirements. The latest version of the Compendium of best practices published by the U.S. Copyright Office also poses a challenge to the registration of autonomously generated AI works. In fact, creative works generated solely by AI machines are not copyrightable if they do not satisfy the human author requirement of the Copyright Office. In other words, unless AI generated works can directly be attributed to a human author, they would theoretically not be copyrightable and would fall into the public domain upon their creation.

SQ patent law is not applicable in the 3A (Advanced, Automated and Autonomous) AI era

Dr. Shlomit Yanisky Ravid and Xiaoqiong Liu, written 2017, published in 2018, last revised in 2020. (Ravid - Professor of Law; Yale Law School, Information Society Project (ISP), Fellow; Ono Academic Law School, Israel (OAC), Senior Faculty; Fordham University School of Law, Visiting Professor; The Shalom Comparative Legal Research Center, SCLRC, OAC, Founder and Director. Liu - engineer holding a J.D. Fordham University School of Law; Fordham Intellectual Property Institute, Fellow) Cardozo Law Review, WHEN ARTIFICIAL INTELLIGENCE SYSTEMS PRODUCE INVENTIONS: THE 3A ERA AND AN ALTERNATIVE MODEL FOR PATENT LAW, posted online 13 Mar 2017, published in Cardozo Law Review 2018, last revised 25 Nov 2020 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931828> (accessed 6 June 2021)

Thus, traditional patent law is not applicable in the 3A era. This has become more obvious as technology advances and as AI systems, when embedded the features listed above, become increasingly capable of mimicking the functions that we consider to symbolize the human mind, creating new products and processes. AI systems have become valuable for solving specific problems and now promise to improve specific human skills—not only accuracy, velocity and capacity to process vast amounts of data but also creativity, autonomy, novelty and other features that establish patentable innovations. Moreover, facing the 3A era, will soon be able to develop inventions without significant guidance or instructions and even create, complete and submit unlimited number of patent applications themselves.

A/T “Patent Office is studying it” – And they fumbled. Patent Office studied and rejected copyrights on AI output

Dorsey & Whitney 2020. (Minneapolis law firm) AI Inventorship Still a No-Go, But Will the Copyright Office Change Its Tune for Music Created by AI? 10 July 2020 <https://www.jdsupra.com/legalnews/ai-inventorship-still-a-no-go-but-will-13773/> (brackets added; ellipses in original) (accessed 7 June 2021)

Last year, the [USPTO [US Patent & Trade Office] sought public comment](https://www.federalregister.gov/documents/2019/12/03/2019-26104/request-for-comments-on-intellectual-property-protection-for-artificial-intelligence-innovation) on IP protection for inventions created using AI. It received nearly 200 responses and [launched a page](https://www.uspto.gov/initiatives/artificial-intelligence) on its website providing information on AI initiatives, public notices and responses, and outside resources. This move left many to wonder whether AI innovations would begin to receive increased IP protection, where, historically, such protection has been thin or nonexistent, when the creative process is known. The USPTO recently responded to such speculation when it [issued its decision](https://www.uspto.gov/sites/default/files/documents/16524350_22apr2020.pdf) confirming the refusal for patent protection for an invention generated by “DABUS,” an AI machine. Stephen Thaler filed U.S. Patent application number 16/524,350 with the USPTO last July, with the sole inventor listed as “DABUS, the Creativity machine that has produced the…invention.” The USPTO issued a Notice to File Missing Parts of Nonprovisional Application, requesting identification of each inventor by name, and refused to examine the patent.

SIGNIFICANCE

AI can make significant contributions to society

Kalin Hristov written in 2016, published in 2017 (University of Science and Technology of China - School of Public Affairs, Heifei, China) “Artificial Intelligence and the Copyright Dilemma” written 1 Sept 2016, published 31 May 2017 IDEA – THE JOURNAL OF THE FRANKLIN PIERCE CENTER FOR INTELLECTUAL PROPERTY <https://ipmall.law.unh.edu/sites/default/files/hosted_resources/IDEA/hristov_formatted.pdf> (accessed 8 June 2021) (ellipses in original)

Creativity machines are just one type of AI. Their contribution to society, however, is significant, as they are able to generate new ideas through the use of software which mimics the configuration of human neural networks. These networks are comprised of a number of switches which can work together to assess information and create novel works which differ from prior art. This process is often both automatic and independent from human intervention. The results may vary significantly, and are often unique works of different levels of complexity and artistic value. As computers become faster and more capable, creativity machines and other forms of AI will likely take center stage in the creative process, becoming the main drivers of creativity and innovation.

AI creates output that would be considered intellectual property if it had been created by a person

Dr. Shlomit Yanisky Ravid and Xiaoqiong Liu, written 2017, published in 2018, last revised in 2020. (Ravid - Professor of Law; Yale Law School, Information Society Project (ISP), Fellow; Ono Academic Law School, Israel (OAC), Senior Faculty; Fordham University School of Law, Visiting Professor; The Shalom Comparative Legal Research Center, SCLRC, OAC, Founder and Director. Liu - engineer holding a J.D. Fordham University School of Law; Fordham Intellectual Property Institute, Fellow) Cardozo Law Review, WHEN ARTIFICIAL INTELLIGENCE SYSTEMS PRODUCE INVENTIONS: THE 3A ERA AND AN ALTERNATIVE MODEL FOR PATENT LAW, posted online 13 Mar 2017, published in Cardozo Law Review 2018, last revised 25 Nov 2020 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931828> (accessed 6 June 2021)

We argue that, due to these features, AI systems are capable of independently developing inventions which, had they been created by humans, would be patentable (and able to registered as patents). The traditional approach to patent law in which policy makers seek to identify the human inventor behind the patent is, therefore, no longer relevant. We are facing a new era of machines “acting” independently, with no human being behind the inventive act itself.

AI produces output that, if it were done by humans, would already be patentable under current law

Dr. Shlomit Yanisky Ravid and Xiaoqiong Liu, written 2017, published in 2018, last revised in 2020. (Ravid - Professor of Law; Yale Law School, Information Society Project (ISP), Fellow; Ono Academic Law School, Israel (OAC), Senior Faculty; Fordham University School of Law, Visiting Professor; The Shalom Comparative Legal Research Center, SCLRC, OAC, Founder and Director. Liu - engineer holding a J.D. Fordham University School of Law; Fordham Intellectual Property Institute, Fellow) Cardozo Law Review, WHEN ARTIFICIAL INTELLIGENCE SYSTEMS PRODUCE INVENTIONS: THE 3A ERA AND AN ALTERNATIVE MODEL FOR PATENT LAW, posted online 13 Mar 2017, published in Cardozo Law Review 2018, last revised 25 Nov 2020 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931828> (accessed 6 June 2021)

Though it sounds like science fiction, AI systems already write newspaper articles, create and author stories, produce paintings, create musical compositions, write software, generate other AI systems, and even design inventions. AI systems, whether or not they are embedded in certain robots, create a wide range of innovative, new and non-obvious products and services such as medical devices, drug synthesizers, weapons, kitchen appliances and machines and will soon produce many others that, had they been generated by humans, might be patentable inventions under current patent law.

AI is capable of creating unpredictable results that no human could have come up with

Dr. Shlomit Yanisky Ravid and Xiaoqiong Liu, written 2017, published in 2018, last revised in 2020. (Ravid - Professor of Law; Yale Law School, Information Society Project (ISP), Fellow; Ono Academic Law School, Israel (OAC), Senior Faculty; Fordham University School of Law, Visiting Professor; The Shalom Comparative Legal Research Center, SCLRC, OAC, Founder and Director. Liu - engineer holding a J.D. Fordham University School of Law; Fordham Intellectual Property Institute, Fellow) Cardozo Law Review, WHEN ARTIFICIAL INTELLIGENCE SYSTEMS PRODUCE INVENTIONS: THE 3A ERA AND AN ALTERNATIVE MODEL FOR PATENT LAW, posted online 13 Mar 2017, published in Cardozo Law Review 2018, last revised 25 Nov 2020 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931828> (accessed 6 June 2021)

Unpredictable Results. AI systems are based on algorithms capable of incorporating random mutations that result in unpredictable routes to the optimal solution, and hence to unpredictable solutions (from software programmers’ points of view). AI systems are goaldriven; they process data and take action in order to generate products, data and processes that cannot be predicted by programmers, operators or any other entities involved. For example, an AI system that creates paintings is generating an unpredictable product, rather than simply copying an existing work. AI systems that work on developing new and innovative antibacterial drugs can process data from a large volume of microorganisms (i.e., bacteria), “break” the data into tiny (sometime nano) components and find similarities and patterns that the human involved has not observed and cannot identify, resulting in new and unexpected structural information for drug development.

SOLVENCY

A/T “Too complicated to figure out ownership”

Existing principles of IP law can be extended for use with AI

Russ Pearlman 2018 (Executive Vice President at Headstorm LLC, a technology consulting firm; M.S. Computer Science in Artificial Intelligence, B.S. Computer Science, A.B. Neurobiology with a minor in Psychology, all from Washington Univ in St. Louis) (no month given in the article date) Richmond Journal of Law & Technology; RECOGNIZING ARTIFICIAL INTELLIGENCE (AI) AS AUTHORS AND INVENTORS UNDER U.S. INTELLECTUAL PROPERTY LAW (accessed 6 June 2021) <https://www.kiip.re.kr/webzine/1809/resource/file/Library08.pdf>

Today, many (if not most) works are authored or invented by natural persons and then assigned to legal persons such as business or government entities. In the world of copyright, such assignment occurs via implicit agreements (i.e., as a work-for-hire within the scope of employment), as a work specially ordered or commissioned as a collective work, or explicitly via employment or other contractual agreements. Such assignment of copyrights from natural persons to legal persons also limits the term of exclusive rights. On the patent side, assignment can occur via explicit agreements (such as employment or contractual agreements) or via implicit agreements (such as the “hired-to-invent” doctrine). If an AI were to be recognized as the author or inventor, a similar approach could be applied to assign the rights to natural persons or legal persons.

Using employee-employer relationship rules (also known as work made for hire) applied to AI, would solve

Kalin Hristov written in 2016, published in 2017 (University of Science and Technology of China - School of Public Affairs, Heifei, China) “Artificial Intelligence and the Copyright Dilemma” written 1 Sept 2016, published 31 May 2017 IDEA – THE JOURNAL OF THE FRANKLIN PIERCE CENTER FOR INTELLECTUAL PROPERTY <https://ipmall.law.unh.edu/sites/default/files/hosted_resources/IDEA/hristov_formatted.pdf> (accessed 8 June 2021)

The employee–employer relationship, as interpreted in relative terms to allow the passage of authorship from the AI machine to its developer, would effectively solve the current issue of AI generated works falling into the public domain. Although authorship belongs to the original creator of the work, in this case the AI device, the made for hire doctrine would allow the developer or owner of the AI to be “considered the author for the purpose of the title.” In essence under the provisions of the made for hire doctrine, the employer is not the actual author of the work, but is only considered as such to satisfy requirements of the law.

A/T “More study needed”

Turn: Less study needed. We don’t have the luxury of slow policy response

Francis Gurry 2020 (Director General of the World Intellectual Property Organization) published written transcript of remarks at COPYRIGHT IN THE AGE OF ARTIFICIAL INTELLIGENCE 5 Feb 2020 <https://www.copyright.gov/events/artificial-intelligence/transcript.pdf> (accessed 7 June 2021)

And I think, for all of us who care about copyright, it's very important that we assert the role and importance of property, which has, after all, historically been such -- whether real property or intellectual property -- such an extremely important institution for the organization of the market and the economy. The second risk, I think, is a risk of incoherence. The policy responses we see emerging now, for those of us who are trained in and comfortable with the common law tradition, we're not so upset by the slow movement of the gradual evolution of a policy response, but that is not the whole world. And I think here in this instance we have two differences from other preceding situations. The first is, of course, the speed of technological development. I'm not sure we have the luxury for that slow evolution of a responsive policy response.

Federal copyright officials knew about it in 1965. How much more time do they need?

Diana Bikbaeva 2020. (Master of Laws (2020), Univ of Illinois College of Law ) ILLINOIS BUSINESS LAW JOURNAL Summer 2020 CREATED TO CREATE: WHY AI-CREATED WORKS SHOULD BE COPYRIGHTABLE AS WORKS MADE FOR HIRE (ellipses in original) (accessed 9 June 2021) http://publish.illinois.edu/illinoisblj/files/2020/06/9-Diana-Bikbaeva-AI-Copyright.pdf



A/T “Hard to tell what’s created by humans vs. AI”

SQ has that problem “because” you can’t copyright. Companies today have incentive now to obfuscate (claim a human wrote it when AI did) because they can’t copyright AI output

Dorsey & Whitney 2020. (Minneapolis law firm) AI Inventorship Still a No-Go, But Will the Copyright Office Change Its Tune for Music Created by AI? 10 July 2020 <https://www.jdsupra.com/legalnews/ai-inventorship-still-a-no-go-but-will-13773/> (brackets added; ellipses in original) (accessed 7 June 2021)

The USPTO has signaled that it is not ready to knowingly grant patents for innovations created without a human inventor. As companies seek to secure patent protection for more complex inventions, it stands to reason that some may simultaneously seek to obfuscate the inventive process or the involvement of AI machines in their creation.

A/T “What specific law are you changing?”

Volume 35 of the United States Code, Article 101.

**[And no, we’re not going to hand the Negative team a copy of 35 USC 101. That’s Status Quo law and Negative owns the Status Quo. And we aren’t quoting from it in the round, so it’s not being introduced in evidence. We’re not responsible for printing out something we’re not quoting from. There is no rule in the debate league that requires us to provide printed material we didn’t quote in the round. We’re changing a policy, and we have printed our policy in our 1AC and Negative can read that whenever they want.]**

Dr. Shlomit Yanisky Ravid and Xiaoqiong Liu, written 2017, published in 2018, last revised in 2020. (Ravid - Professor of Law; Yale Law School, Information Society Project (ISP), Fellow; Ono Academic Law School, Israel (OAC), Senior Faculty; Fordham University School of Law, Visiting Professor; The Shalom Comparative Legal Research Center, SCLRC, OAC, Founder and Director. Liu - engineer holding a J.D. Fordham University School of Law; Fordham Intellectual Property Institute, Fellow) Cardozo Law Review, WHEN ARTIFICIAL INTELLIGENCE SYSTEMS PRODUCE INVENTIONS: THE 3A ERA AND AN ALTERNATIVE MODEL FOR PATENT LAW, posted online 13 Mar 2017, published in Cardozo Law Review 2018, last revised 25 Nov 2020 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931828> (accessed 6 June 2021)

US patent law (35 U.S. Code Article 101) explains who may obtain a patent and what constitutes a patentable invention: Whoever invents or discovers any new and useful process, machine, manufacture or composition of matters, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title. Is an AI a “who”? Can an AI system be entitled to patent protection? According to a well-known phrase of patent law, anything under the sun, which is made by man, qualifies as patentable subject matter. This statement expresses one of the main challenges of patenting creations by sophisticated AI systems.

We’re using the “Work Made For Hire” (WMFH) doctrine under existing law and extending it to AI

Diana Bikbaeva 2020. (Master of Laws (2020), Univ of Illinois College of Law ) ILLINOIS BUSINESS LAW JOURNAL Summer 2020 CREATED TO CREATE: WHY AI-CREATED WORKS SHOULD BE COPYRIGHTABLE AS WORKS MADE FOR HIRE (accessed 9 June 2021) <http://publish.illinois.edu/illinoisblj/files/2020/06/9-Diana-Bikbaeva-AI-Copyright.pdf>

AI-created work should be a work of authorship protectable by copyright law. It is logical to grant copyright in AI-created works to the persons who made it all possible, i.e. the persons who wrote the software code for the AI. Although this “remote” attribution of authorship in AI-created works to the AI software programmers may seem unknown to copyright law, it is in fact strikingly similar to the already existing work made for hire doctrine, under which copyright in specified types of commissioned works vests in the employer or the organizer of the creative process, and not the immediate author. Application of the WMFH doctrine to AI-created works would solve a number of issues because it: justifies the automatic vesting of the copyright not in the immediate author, but in the “employer”; eliminates the moral rights issue; and circumvents the identity/entity issue of the immediate author (namely, “can the AI be deemed a legal entity?”).

A/T “How long does the work-for-hire copyright last?” – Answer: 95 years

Prof. Stephan Kinsella 2013 (South Texas College of Law, Houston) Jan 2013 “The Case Against Intellectual Property” <https://www.researchgate.net/publication/278637139_The_Case_Against_Intellectual_Property> (accessed 9 June 2021)

While a copyright may be registered to obtain legal advantages, a copyright need

not be registered to exist. Rather, a copyright comes into existence automatically

the moment the work is “ﬁxed” in a “tangible medium of expression,” and lasts for

the life of the author plus 70 years, or for a total of 95 years in cases in which the

employer owns the copyright.

While a copyright may be registered to obtain legal advantages, a copyright need

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the life of the author plus 70 years, or for a total of 95 years in cases in which the

employer owns the copyright.



A/T “How long does a patent last?” – Answer: 20 years

Prof. Stephan Kinsella 2013 (South Texas College of Law, Houston) Jan 2013 “The Case Against Intellectual Property” <https://www.researchgate.net/publication/278637139_The_Case_Against_Intellectual_Property> (accessed 9 June 2021)



Advocacy

IP rights create incentives for investment in AI, and we should recognize them

Russ Pearlman 2018 (Executive Vice President at Headstorm LLC, a technology consulting firm; M.S. Computer Science in Artificial Intelligence, B.S. Computer Science, A.B. Neurobiology with a minor in Psychology, all from Washington Univ in St. Louis) (no month given in the article date) Richmond Journal of Law & Technology; RECOGNIZING ARTIFICIAL INTELLIGENCE (AI) AS AUTHORS AND INVENTORS UNDER U.S. INTELLECTUAL PROPERTY LAW (accessed 6 June 2021) <https://www.kiip.re.kr/webzine/1809/resource/file/Library08.pdf>

To provide incentives for investment in AI, the United States legal system must adapt to the realities of today's AI and eliminate the gray areas that exist in the law. AI systems are already creating works that, if authored by a human, would be deemed copyrightable. AI systems are also involved in inventing concepts that, if invented by a human, would also be deemed patentable. Yet, the current law requires humans to side-step the issue and merely register their works and inventions with silence regarding where the true creativity may primarily lie. To eliminate this confusion and potential risk, United States intellectual property law must recognize AI systems as authors and inventors. Since advanced AI systems use techniques based on human brains, there is no fundamental reason why they cannot be recognized as performing “mental processes” analogous to humans. Courts already recognize and distinguish when works are original or inventions are sufficiently novel--not by considering the intelligence of the natural person, but by looking to the facts surrounding the creation.

The costs of producing AI work justifies the incentive of copyright protection. Existing law should be reformed

Diana Bikbaeva 2020. (Master of Laws (2020), Univ of Illinois College of Law ) ILLINOIS BUSINESS LAW JOURNAL Summer 2020 CREATED TO CREATE: WHY AI-CREATED WORKS SHOULD BE COPYRIGHTABLE AS WORKS MADE FOR HIRE (accessed 9 June 2021) <http://publish.illinois.edu/illinoisblj/files/2020/06/9-Diana-Bikbaeva-AI-Copyright.pdf>

The cost of AI development is difficult to estimate but is no doubt immense. Such costs include research and development, data scientist labor, and machine training that takes a long time and consumes tremendous amounts of computing power (for example, just training a single model of OpenAI’s word-predicting GPT-2 cost up to around $40,000 in energy consumption). In order to foster the creation of AI systems, its arrangers should not only be able to recoup their costs, but also profit from their use. Under the existing law, although the cost of putting together AI systems is great, and AI-created works can be valuable, the creation of art-generating AIs might not be sufficiently incentivized. Copyright protection would present an additional economic motivational factor for the development of art-creating AI. Thus, reforming the existing law to extend copyright protection to AI-created works is necessary and will be in tune with the dominant utilitarian doctrine adopted by American copyright law.

Human creativity in creating AI justifies recognizing it with IP protection in the creative output

Diana Bikbaeva 2020. (Master of Laws (2020), Univ of Illinois College of Law ) ILLINOIS BUSINESS LAW JOURNAL Summer 2020 CREATED TO CREATE: WHY AI-CREATED WORKS SHOULD BE COPYRIGHTABLE AS WORKS MADE FOR HIRE (accessed 9 June 2021) <http://publish.illinois.edu/illinoisblj/files/2020/06/9-Diana-Bikbaeva-AI-Copyright.pdf>

Arthur R. Miller once wittily noted that “behind every robot there is a good person.” Every AI system too was once created by human authors of the software (and taught by data scientists, etc.). Even if we consider that AI operates independently from the humans who created or are running it, and the authorship in the works cannot be strictly and directly attributed to those people, there still exists a “sufficient nexus to human creativity” in the resulting works, however remote. Thus, it is necessary and not disruptive to the existing American copyright doctrine to recognize AI-created works as “works of authorship.”

ADVANTAGES

Economic benefits

Current IP legal system may serve as a disincentive for future investment in AI

Russ Pearlman 2018 (Executive Vice President at Headstorm LLC, a technology consulting firm; n M.S. Computer Science in Artificial Intelligence, B.S. Computer Science, A.B. Neurobiology with a minor in Psychology, all from Washington Univ in St. Louis) (no month given in the article date) Richmond Journal of Law & Technology; RECOGNIZING ARTIFICIAL INTELLIGENCE (AI) AS AUTHORS AND INVENTORS UNDER U.S. INTELLECTUAL PROPERTY LAW (accessed 6 June 2021) <https://www.kiip.re.kr/webzine/1809/resource/file/Library08.pdf>

Artificial Intelligence (AI) is a booming field, yet the current United States intellectual property (IP) legal system may serve as a disincentive for future investments. Last year alone, over 550 startups using AI as a core part of their products raised $5 billion in funding, and over 60% of all such funding went to American companies. Yet courts, like the United States Copyright Office (Copyright Office) and the United States Patent and Trademark Office (USPTO), do not recognize non-human authors or inventors, creating a potentially gray area when AI is used to aid in the generation of creative works and inventions. A core assumption in today's law is that it is uniquely human ingenuity and creativity that is an essential element for copyrights and inventions. Yet, today's AI systems often exhibit expression and independent creativity that we might otherwise attribute to humans. Such systems further the public interest, which is one of the core purposes of IP law.

Chilling effect: Lack of IP protection for AI outputs lowers research productivity

Iain M. Cockburn, Rebecca Henderson & Scott Stern 2018 (with the National Bureau of Economic Research) March 2018 “THE IMPACT OF ARTIFICIAL INTELLIGENCE ON INNOVATION” <https://www.nber.org/system/files/working_papers/w24449/w24449.pdf> (accessed 8 June 2021)

On the other, the advent of deep learning has significant implications for the patent system. Though there has so far been relatively little patenting of deep learning innovations, historical episodes such as the discovery and attempted wholesale patenting of express sequence tags and other kinds of genetic data suggests that breakthroughs in research tools—often combined with a lack of capacity at patent offices and conflicting court decisions—can result in long periods of uncertainty that has hampered the issuing of new patents, and this in turn has led to lower research productivity and less competition.

Lack of copyright = lack of incentive to create

Diana Bikbaeva 2020. (Master of Laws, Univ of Illinois College of Law ) ILLINOIS BUSINESS LAW JOURNAL Summer 2020 CREATED TO CREATE: WHY AI-CREATED WORKS SHOULD BE COPYRIGHTABLE AS WORKS MADE FOR HIRE (accessed 9 June 2021) <http://publish.illinois.edu/illinoisblj/files/2020/06/9-Diana-Bikbaeva-AI-Copyright.pdf>

The established practice can dangerously lead to there being no copyright in the works created by AI because of the lack of an immediate human author. In the most optimistic set of events, the legal status quo will create contradicting case law as to the possibility of copyright protection in the AI-created works, leaving the people behind the AIs without the sufficient incentive to develop art-creating AI systems.

Intellectual Property Rights (IPR) are vital to economic growth

Allen N. Dixon 2010. (International Intellectual Property and Technology Consulting, London) Intellectual Property: Powerhouse for Innovation and Economic Growth <https://iccwbo.org/content/uploads/sites/3/2011/02/Intellectual-Property-Powerhouse-for-Innovation-and-Economic-Growth.pdf> (accessed 9 June 2021) (note: article is undated but references events in 2010 and none later, and its URL indicates it was uploaded in 2011)

Intellectual property rights (IPR)—the copyrights, patents, trademarks and similar rights upon which the lion’s share of creative and innovative products and services rely—have a vital role in growing the economies of developed and developing countries all over the world, in spurring innovation, in giving large and small firms a range of tools to help drive their success, and in benefitting consumers and society through a continuous stream of innovative, competitive products and services and an expansion of society’s overall state of knowledge.

IPR leads to greater investment, which leads to greater innovation

Allen N. Dixon 2010. (International Intellectual Property and Technology Consulting, London) Intellectual Property: Powerhouse for Innovation and Economic Growth <https://iccwbo.org/content/uploads/sites/3/2011/02/Intellectual-Property-Powerhouse-for-Innovation-and-Economic-Growth.pdf> (accessed 9 June 2021) (note: article is undated but references events in 2010 and none later, and its URL indicates it was uploaded in 2011)

IPR also can be an important drawing card for innovative start-up firms to get access to funding from investors such as venture capitalists (VCs). Once a start-up reaches a certain stage of development, the fact that it has turned its R&D into a patented asset, for example, seems to signal good management and demonstrate that the firm has defined and carved out a market niche. There is a strong positive relationship between venture capital funding, patenting and innovation. Studies have shown that patent ownership at early-stage high-technology companies has a positive impact on the timing and value of venture financing received, and on the likelihood of attracting a prominent capital investor. Haeussler et al. (2009), who surveyed 190 VC-seeking biotechnology companies founded after 1989 in Germany or the UK, found that the firms’ patenting activities had ‘consistent and cogent effects’ on the timing of VC financing. Having at least one filed patent application reduced the time to the first VC investment by 76%. The study concluded that “patents do indeed constitute an attractive instrument which helps young ventures to overcome the liabilities of newness and, in turn, facilitates market entry while at the same time providing incentives for innovation.”

Intellectual Property protection is critical to economic growth and improvements in quality of life

[Stephen Ezell](https://itif.org/person/stephen-ezell) & [Nigel Cory](https://itif.org/person/nigel-cory) 2019 (Ezell - Vice President, Global Innovation Policy, at the Information Technology and Innovation Foundation. Associate Director, Trade Policy, at the Information Technology and Innovation Foundation) 25 April 2019 “The Way Forward for Intellectual Property Internationally” <https://itif.org/publications/2019/04/25/way-forward-intellectual-property-internationally> (accessed 9 June 2021)

Innovation represents the creation of new value for the world, whether that “value” is created through new technologies, new business models, new products and services, or new forms of social entrepreneurship. Innovation should be at the top of policymakers’ agenda, as it is the principal driver of both long-term economic growth and improvements in quality of life. For instance, the U.S. Department of Commerce reported in 2010 that technological innovation can be linked to three-quarters of the U.S. growth rate since the end of World War II. [**END QUOTE]**  Similarly, two-thirds of United Kingdom private-sector productivity growth between 2000 and 2007 resulted from innovation. Intellectual property plays a key role in driving innovation and economic growth.3 Everywhere we go, we are surrounded by intellectual property. Trademarks signal the origin of products to consumers. Designs specify how products look. Copyrights enable artistic creations, such as books, music, paintings, photos, and films. Patents protect technical inventions in all fields of technology. Intellectual property’s role has evolved into a force that influences a wide swath of demand and sectors, making it an increasingly influential framework condition that affects not only innovation, but also trade, competition, taxes, and other areas.  [**THEY GO ON LATER IN THE CONTEXT SAYING QUOTE**:] The reality is intellectual property is mainstream and pervasive. In today’s economy, the generation and management of knowledge plays a predominant role in wealth creation, particularly when compared with traditional factors of production such as land, labor, and capital.

US/China geopolitical rivalry

China has a plan to dominate AI technology and is already leading the US in investments and research

Prof. Graham Allison 2019. (Professor of Government at Harvard Univ.) 22 Dec 2019 “Is China Beating America to AI Supremacy?” <https://nationalinterest.org/feature/china-beating-america-ai-supremacy-106861> (accessed 9 June 2021)

It began with President Xi Jinping’s personal reaction to the defeat of the world’s Go champion. Declaring that this was a technology in which China had to lead, he set specific targets for 2020 and 2025 that put China on a path to dominance over AI technology and related applications by 2030. Recognizing that this would have to be led by entrepreneurial companies rather than agencies of government, he designated five companies to become China’s national champions: Baidu, Alibaba, Tencent, iFlytek and SenseTime. Twelve months after Xi’s directive, investments in Chinese AI startups had topped investments in American AI startups. By 2018, China filed 2.5 times more patents in AI technologies than the United States. And this year, China is graduating three times as many computer scientists as the United States.

China’s AI policy is about geopolitical competition and it’s a matter of grave national concern if we fall behind

Prof. Graham Allison 2019. (Professor of Government at Harvard Univ.) 22 Dec 2019 “Is China Beating America to AI Supremacy?” <https://nationalinterest.org/feature/china-beating-america-ai-supremacy-106861> (accessed 9 June 2021)

First, most Americans believe that U.S. leadership in advanced technologies is so entrenched that it is unassailable. Likewise, many in the American national security community insist that in the AI arena China can never be more than a “near-peer competitor.” Both are wrong. In fact, China stands today as a full-spectrum peer competitor of the United States in commercial and national security applications of AI. Beijing is not just trying to master AI—it is succeeding. Because AI will have as transformative an impact on commerce and national security over the next two decades as semiconductors, computers and the web have had over the past quarter century, this should be recognized as a matter of grave national concern.

A/T “Chinese government not directing AI” – But they’re using what industry develops

Prof. Graham Allison 2019. (Professor of Government at Harvard Univ.) 22 Dec 2019 “Is China Beating America to AI Supremacy?” <https://nationalinterest.org/feature/china-beating-america-ai-supremacy-106861> (accessed 9 June 2021)

In contrast to nuclear weapons—where governments led in discovery, development and deployment—AI and related technologies have been created and are being advanced by private firms and university researchers. The military establishments in Washington and Beijing are essentially playing catch-up, adopting and adapting private-sector products.

US and China are in a struggle for international dominance. China threatens US hegemony

Ashley Tellis 2020 (Tata Chair for Strategic Affairs and a senior fellow at the Carnegie Endowment for International Peace. He is also a counselor at the National Bureau of Asian Research and the research director of the Strategic Asia Program) 4 May 2020 "COVID-19 Knocks on American Hegemony" <https://carnegieendowment.org/2020/05/04/covid-19-knocks-on-american-hegemony-pub-81719> (accessed 8 June 2021)

After almost two decades of conflicted hesitancy, the United States finally acknowledged that it is involved in a long-term strategic competition with China. This rivalry, almost by definition, is not merely a wrangle between two major states. Rather, it involves a struggle for dominance in the international system, even if China as the rising power disavows any such ambition. China’s very ascendancy—if sustained—could over time threaten the U.S. hegemony that has been in place since the end of World War II. It is this reality of unequal growth—which has nourished China’s expanding influence and military capabilities—that lies at the root of the evolving rivalry.

China is growing its military, intends to become a challenger to American power, and not just in East Asia

Dr. Kim R. Holmes 2015 (PhD in history from Georgetown Univ.; formerly worked for the Defense Policy Board, the U.S. defense secretary’s primary resource for expert outside advice; and public member of the U.S. delegation to the Organization for Security and Cooperation in Europe) 3 June 2015 China prepping for regional hegemony <https://www.heritage.org/asia/commentary/china-prepping-regional-hegemony> (accessed 8 June 2021)

The Chinese government is putting its money where its mouth is. It announced a 10 percent increase of the military budget for 2015. That would make China the second-largest military spender in the world. Increases in defense spending have been outpacing GDP growth rates for years, and although China’s defense spending is still far below America’s, it is growing while the U.S. is cutting its defense expenditures. All of this adds up to a bold new role for China’s armed forces. Long thought to be content with the mere defense of its mainland territory, China is clearly staking a larger claim for itself. It is striving to become the dominant military power in East Asia for sure, but also, in the long run, a rival challenger to American military power.

US on the brink of losing East Asia hegemony to China

Prof. Jennifer Lind 2018 (associate professor of government at Dartmouth Univ.) “Life in China’s Asia What Regional Hegemony Would Look Like” <https://www.foreignaffairs.com/articles/china/2018-02-13/life-chinas-asia> (accessed 8 June 2021)

For now, the United States remains the dominant power in East Asia, but China is quickly closing the gap. Although an economic crisis or domestic political turmoil could derail China’s rise, if current trends continue, China will before long supplant the United States as the region’s economic, military, and political hegemon.

China wants Asia hegemony, wants to replace U.S. in the region

Prof. Oriana Mastro 2019 (Assistant Professor of Security Studies at Georgetown Univ) “The Stealth Superpower” <https://www.foreignaffairs.com/articles/china/china-plan-rule-asia> Jan/Feb 2019 (accessed 8 June 2021)

China has no interest in establishing a web of global alliances, sustaining a far-flung global military presence, sending troops thousands of miles from its borders, leading international institutions that would constrain its own behavior, or spreading its system of government abroad. But to focus on this reluctance, and the reassuring Chinese statements reflecting it, is a mistake. Although China does not want to usurp the United States’ position as the leader of a global order, its actual aim is nearly as consequential. In the Indo-Pacific region, China wants complete dominance; it wants to force the United States out and become the region’s unchallenged political, economic, and military hegemon. And globally, even though it is happy to leave the United States in the driver’s seat, it wants to be powerful enough to counter Washington when needed.

China gaining Asian regional hegemony leads to gaining global hegemony, replacing USA

Min-Hyung Kim 2019 (Department of Political Science and International Relations, Kyung Hee University, South Korea) 4 Feb 2019 “A real driver of US–China trade conflict: The Sino–US competition for global hegemony and its implications for the future” <https://www.emerald.com/insight/content/doi/10.1108/ITPD-02-2019-003/full/html> (accessed 8 June 2021)

Although China repeatedly claims that it does not seek to replace US hegemony in the world, its behavior revealed by the initiatives of the BRI, the AIIB and Made in China 2015 illustrates that its ultimate goal is to be a global hegemon. This is not surprising because all the rising powers in history invariably sought to first dominate the region they are situated (Mearsheimer, 2011, 2014) and expand their power globally (Gilpin, 1981).

Impact: World peace & prosperity at risk. US hegemony is key to global peace & prosperity

Capt. M. V. Prato 2009 (United States Marine Corps,Command and Staff College, Marine Corps Combat Development Command,Marine Corps University) “The Need for American Hegemony” <https://apps.dtic.mil/sti/citations/ADA508040> (accessed 3 June 2021)

The world witnessed a vast shift in the polarity of geopolitics after the Cold War. The United States became the world’s greatest hegemon with an unequalled ability to globally project cultural, political, economic, and military power in a manner not seen since the days of the Roman Empire. **[END QUOTE]** Coined the “unipolar moment” by syndicated columnist Charles Krauthammer, the disparity of power between the U.S. and all other nations allows the U.S. to influence the world for the mutual benefit of all responsible states. Unfortunately, the United States is increasingly forced to act unilaterally as a result of both foreign and domestic resentment to U.S. dominance and the rise of liberal internationalism. [**He goes on to conclude later in the same context QUOTE**:] The United States must exercise benevolent global hegemony, unilaterally if necessary, to ensure its security and maintain global peace and prosperity.

DISAD RESPONSES

AI won’t disrupt copyright law

Diana Bikbaeva 2020. (Master of Laws (2020), Univ of Illinois College of Law ) ILLINOIS BUSINESS LAW JOURNAL Summer 2020 CREATED TO CREATE: WHY AI-CREATED WORKS SHOULD BE COPYRIGHTABLE AS WORKS MADE FOR HIRE (accessed 9 June 2021) <http://publish.illinois.edu/illinoisblj/files/2020/06/9-Diana-Bikbaeva-AI-Copyright.pdf>

However, the existing law and practice were formed in the times when computers, let alone AI, either did not exist yet or were incapable of producing artwork that would satisfy the originality criterion. As confirmed by Congress, the term “works of authorship” was purposefully left undefined to provide for flexibility in the view of future (including technological) developments. Therefore, it should not disrupt copyright law if the human authorship requirement is relaxed for qualifying AI works.

A/T “IPR oppresses the poor” – Misguided view, ignores the global benefits of innovation and productivity

[Stephen Ezell](https://itif.org/person/stephen-ezell) & [Nigel Cory](https://itif.org/person/nigel-cory) 2019 (Ezell - Vice President, Global Innovation Policy, at the Information Technology and Innovation Foundation. Associate Director, Trade Policy, at the Information Technology and Innovation Foundation) 25 April 2019 “The Way Forward for Intellectual Property Internationally” <https://itif.org/publications/2019/04/25/way-forward-intellectual-property-internationally> (accessed 9 June 2021)

Despite tremendous changes in technologies and business practices, as well as the need for greater global innovation to help address global policy challenges, the international framework and debate around IP largely pivots around the positions of IPR opponents who favor weak or nonexistent protections and enforcement, and who view IP as enabling monopolistic rents imposed by wealthy multinationals and rich nations. Playing the victim card, they seek to portray IPR as exploitative and favoring the rich North at the expense of the poor South. Opponents of stronger IP rights further advance the view that weak protection and forced redistribution of IP are shortcuts to economic development or paths to address important international challenges such as global warming and human health. But this framing—which is increasingly reflected in global dialogues—is fundamentally misguided and fails to recognize the long-term negative impacts such a policy framing would have on global innovation and productivity, while distracting attention and resources from far-preferable domestic policies that could genuinely support the development, deployment, adoption, and absorption of new technologies by emerging economies.

A/T “IPR denies human rights / property rights”

IPR can co-exist with intrinsic human rights as long as we prioritize basic human rights

Gargi Rajvanshi & Rajeev Gupta 2011 (Rajvanshi - PhD Research scholar, Rajiv Gandhi School of Intellectual Property, Indian Institute of Technology. Gupta - Student of LL.B. Ist year, Rajiv Gandhi School of Intellectual Property, Indian Institute of Technology) INTELLECTUAL PROPERTY RIGHTS VS. HUMAN RIGHTS: A NEED TO REEXAMINE THE RELATIONSHIP BETWEEN TWO TO ENHANCE SOCIAL BEING, July 2011 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1887024#:~:text=The%20intellectual%20property%20rights%20are,returns%20without%20any%20social%20perspective.&text=The%20moral%20and%20economic%20rights,and%20needs%20of%20the%20society>. (accessed 9 June 2021)

Thus by the above discussion it becomes quite clear that both the rights that is intellectual property rights as well as the human rights are indispensable in the human society. Both of them should survive but the priority is to be given to the human rights in comparison to the intellectual property rights. That’s why all the conventions working for human rights as well as intellectual property rights should impose reasonable restriction upon the intellectual property rights just to provide, protect and promote the human rights. As one thing has to be kept in mind , that Human Rights are given to the individuals not as a matter of chance and choice but as a matter of being a human.

UN Cultural Diversity Convention concluded we have to balance co-existence between IPR and human rights in general

Gargi Rajvanshi & Rajeev Gupta 2011 (Rajvanshi - PhD Research scholar, Rajiv Gandhi School of Intellectual Property, Indian Institute of Technology. Gupta - Student of LL.B. Ist year, Rajiv Gandhi School of Intellectual Property, Indian Institute of Technology) INTELLECTUAL PROPERTY RIGHTS VS. HUMAN RIGHTS: A NEED TO REEXAMINE THE RELATIONSHIP BETWEEN TWO TO ENHANCE SOCIAL BEING, July 2011 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1887024#:~:text=The%20intellectual%20property%20rights%20are,returns%20without%20any%20social%20perspective.&text=The%20moral%20and%20economic%20rights,and%20needs%20of%20the%20society>. (accessed 9 June 2021)

Asserting that cultural diversity is a “common heritage of humanity,” the Convention reaffirms states’ “sovereign right to formulate and implement their cultural policies and to adopt measures to protect and promote the diversity of cultural expressions” within its territory. A series of “guiding principles” informs how states are to achieve this objective. These principles include refraining from actions that “hinder respect for human rights,” such as “freedom of expression, information and communication,” and a “principle of openness and balance,” which seeks an accommodation between protecting local culture and “promoting, in an appropriate manner, openness to other cultures of the world.” A major point of contention among the treaty’s drafters was how to define “cultural expressions,” “cultural industries,” and “cultural activities, goods and services,” given the overlap among these terms and free trade and intellectual property agreements. Thus this clearly shows that this treaty designed for the balanced co-existence between the intellectual property rights and the human rights at par.