

# Radical OSTP Proposal Would Undermine American Research and Sacrifice American Intellectual Property

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## KEY TAKEAWAYS

An Office of Science and Technology Policy policy proposal would give away U.S. intellectual property, undermining U.S. trade positions and weakening U.S. leadership.

America's Founders understood citizens would only engage in productive labors if the fruits of their labors were secured to them under law.

The Trump Administration should reaffirm the vital role copyright serves in securing the productive labors of those who create and disseminate journal articles.

Over the past three years, the Trump Administration has placed a high priority on protecting American intellectual property (IP) from foreign theft—especially by China. The Administration's concern about protecting U.S. creators and innovators is one of the principal reasons for its trade war with China. The Trump Administration understands the importance of American IP in spurring innovation, creating jobs, driving more exports, and growing the economy.

Paradoxically, one division of the White House—the Office of Science and Technology Policy (OSTP)—is considering a new policy that conflicts with these key economic priorities of the Trump Administration. The OSTP policy would force private American IP owners to forfeit their valuable property for “free,” permitting China and the rest of the world to take advantage of and benefit from the fruits of their labors.

This paper, in its entirety, can be found at <http://report.heritage.org/lm263>

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In sum, the OSTP policy would allow China and others around the world to take U.S. IP without having to steal it.

Under the proposed OSTP policy, if a copyrighted, peer-reviewed journal article reports on or discusses research that was funded with only *one cent* by a government grant, the journal article—a product created with private, nongovernmental investments that is distinct from the underlying government-funded research—must be made freely available online immediately upon publication.<sup>1</sup>

The OSTP proposal builds off an incredibly aggressive Obama-era regulatory framework that requires free distribution of journal articles no later than one year after publication, reducing the effective copyright term for these articles from “life of the author plus 70 years” provided under the Copyright Act to just one year. The OSTP proposal would not only reinforce the Obama-era regulation, it would push it even further, essentially nationalizing private property by eliminating even the one-year effective copyright term that the Obama Administration left intact.

## Copyright and Its Role in the U.S. Economy

To understand the significance of this proposed policy, it is first helpful to understand the economic importance of safeguarding the IP right at issue—copyright. Our Founding Fathers understood the importance of copyrights, as they empowered Congress in Article 1, Section 8, Clause 8 to secure copyrights under federal law—placing the protection of this “exclusive right” on par with Congress’s other powers to create an army and navy, create federal courts, and declare war. They understood that the nascent United States of America would grow on the basis of the creative and innovative labors of its citizens, who, just like a farmer, would only engage in these productive labors if the fruits of their labors were secured to them under law.

As James Madison explained in *The Federalist No. 43*, the “utility of this power [to secure copyrights and patents] will scarcely be questioned.... The public good fully coincides in both cases with the claims of individuals.” Thus, it is unsurprising that the First Congress, which included James Madison and many of the other Framers of our Constitution, passed the Copyright Act of 1790 as one of its first legislative enactments.

The Founders proved prescient, as the importance of protecting IP rights like copyright in promoting economic growth is indisputable. In 2017, core copyright industries added more than \$1.3 trillion in value to U.S. gross domestic product, accounting for 6.85 percent of the economy.<sup>2</sup> Relative to other sectors of the U.S. economy, these industries grew at a rate 137 percent faster than the remainder of the economy.<sup>3</sup> These industries employed more

than 5.7 million workers, accounting for more than 4.5 percent of the entire private-sector workforce in the U.S.<sup>4</sup> Finally, these are good jobs, with an average annual compensation of \$98,336, which is 39 percent higher than the average U.S. annual wage rate.<sup>5</sup>

Globally, copyrighted works are one of the strongest exports of the U.S. In 2017, companies and individuals in the U.S. made over \$190 billion in foreign sales of copyrighted works and products.<sup>6</sup> This was far more than many other well-known sectors of the U.S. economy that year. It was, for instance, more than the total foreign sales of electronic equipment (\$174.2 billion), agricultural products (\$138.2 billion), chemicals (\$137.0 billion), aerospace products (\$134.4 billion), or pharmaceutical products and medicines (\$55.8 billion).<sup>7</sup>

In sum, copyrighted works are one of the crown jewels of the U.S. domestic economy—and they certainly are a crown jewel of U.S. exports, contributing significantly to the positive balance of trade. It is therefore deeply concerning that the OSTP would consider a policy that would significantly undermine American copyright protection both domestically and abroad.

## The Flawed Justification for the OSTP Proposal

The OSTP proposal would mandate that any journal article reporting on any research funded with even one cent from the federal government must be made available for free for anyone in the world to access and copy. Supporters of this proposal argue that if the government funded some portion of the underlying research, then U.S. taxpayers deserve free access to articles discussing this research.

But there is a subtle equivocation in this argument: *The journal articles are not the same thing as the basic research that was funded by federal grants.* On the one hand, the research is the data and other information collected in the laboratory. On the other hand, the journal articles are privately funded and produced by professional associations, scientific and medical societies, and commercial publishers.<sup>8</sup>

These private organizations do not receive federal funding to publish these journal articles, and they invest hundreds of millions (if not billions) of dollars producing these articles, running peer-review systems, editing and enhancing articles, and creating online databases and interconnected citation networks to make the high-quality, peer-reviewed, standardized, networked, and accessible articles that researchers, doctors, scientists, scholars, and academics have come to rely on.<sup>9</sup>

Many people believe that, in our modern digital world, publishing is zero cost, but this is deeply mistaken.<sup>10</sup> As economist Mark McCabe has observed, his fellow academic “economists knew the value of their journals, but not their prices.”<sup>11</sup> There are substantial capital and labor costs in running and managing initial review, peer review, editing, and publication of millions of submissions and published articles—a process that is performed by tens of thousands of highly skilled journal employees and paid editors across the country.<sup>12</sup> There are additional massive costs and investments in capital and highly skilled professional labor in creating and maintaining the digital infrastructure that delivers up-to-date, standardized, networked, reliable journal articles to readers around the world through sophisticated platforms. The data confirms that even just this second component involves up-front investments and ongoing expenditures that run in the hundreds of millions of dollars annually—and ultimately billions of dollars.<sup>13</sup>

In sum, taxpayers may have paid for part of the underlying research that is reported on in a journal article, but taxpayers did not pay for the billions in downstream commercial investments and activities that create these articles and make them so useful to the scientific and medical communities.<sup>14</sup>

Exposing this equivocation in the alleged justification for the OSTP proposal makes clear exactly what the OSTP is considering doing to an innovative and flourishing sector of the U.S. innovation economy—the scientific and medical publishing industry. The OSTP proposal would decimate this industry by eviscerating its market-based business models on the grounds that its privately produced downstream products—peer-reviewed, edited, standardized, digitally formatted, and networked articles—must be given away for free to anyone in the world because these articles report on federally funded upstream research.

If the logic of the OSTP proposal was applied consistently by the Trump Administration, this would justify the destruction of many private companies and their business models in which they sell products in the free market. For example, it would justify the government mandating that Ford Motor Company must give away its automobiles for free if Ford incorporates in its automobiles products and services based on data from researchers who received government funding in any respect, such as federally funded safety testing of automobiles and their components. Similarly, if a *Wall Street Journal* article reports on a research study that was funded even in small part by a government grant, then according to the policy rationale of the OSTP proposal, the *Wall Street Journal* must give its article away for free to everyone in the world because it discusses federally funded research.

There are hundreds of thousands of privately produced products that discuss, leverage, or otherwise benefit from upstream government-funded research for which the government claims no ownership stake. And for good reason. If the government required free distribution of downstream products merely by virtue of the fact that they benefit in even the slightest amount from upstream activities that received some government funds, there would be no investments or productive activities to create a free market. The pharmaceutical industry, for instance, would not invest annually more than \$129 billion in private funding of research if the \$43 billion in federal grants from the National Institute of Health meant that all derivative products of this research and development—new medical devices, diagnostics tests, drugs, and vaccines—must be given away for free.<sup>15</sup>

The private sector should be left free to make investments and develop new products and services, regardless of whether the government funds upstream activities in research or even funds the public schools and universities that educate people who later work in this private sector. Private companies and organizations should own the products and services that result from their own investments in time, labor, and capital.

Instead of considering policies to encourage more private-sector investment in efficiently producing peer-reviewed journal articles that discuss federally funded research, the OSTP proposes to actively decimate market-based business models and make any future private-sector investments in producing these articles impossible, given the effective nationalization of the product (in this case, peer-reviewed journal articles).

## Reasons for Concern

The OSTP's proposed policy is alarming for at least two reasons. First, it would be shocking for an Administration that promotes reliable and effective IP rights and the free market to undermine private-sector investment in order to substitute it with nationalization of IP-based products and increased government spending. Once it becomes economically impossible under the OSTP proposal for the private sector to invest in and develop business models to produce reliable, standardized, networked, peer-reviewed articles, the cost of doing this will not go away. Who then will be left bearing this inescapable cost of production of journal articles? The most viable source of funding will be the government.

As a result, taxpayers would be forced to pay twice: They will pay taxes to fund the research, and then they will pay more taxes to fund the downstream

publications reporting on this research. But it does not have to be this way, given the existence of a vibrant private-sector publishing industry that, absent unnecessary regulation, is perfectly willing to invest in producing these downstream publications.

Second, and equally concerning, the OSTP proposal would have a significant impact on U.S. exports of these copyrighted journal articles. It would effectively amount to the U.S. federal government subsidizing global consumption of this valuable U.S. IP. In order to give these copyrighted articles away for free to others, OSTP would have scientists and their government funding bodies “pay-to-publish” each work. Under this inverted model, the U.S. research community would need to cover 100 percent of the financing of U.S. scientific publications for the rest of the world to read for free—while China and the rest of the world sit back and reap the benefit.

In short, U.S. researchers and taxpayers would be burdened by OSTP’s new intrusive regulation, while Chinese and other non-U.S. researchers would operate unburdened, able to publish their works for free (keeping them under subscription for people to pay to read) and not having to pay any subscription fees to the publishers of American research. Taxpayers would then not only be paying twice, they would also be paying for consumers in other countries, such as China, to access and use the U.S. journal articles reporting on this research.

## **OSTP Proposal Undermines U.S. IP Exports and Research Leadership**

Peer-reviewed scientific and medical articles published in the U.S. are the gold standard globally. Companies, hospitals, universities, libraries, and other customers in Asia, Europe, and numerous other foreign countries collectively pay billions of dollars annually for copyright licenses to access and use articles published in U.S. journals. Approximately 59 percent of journal revenues come from outside the U.S., and this share is likely to grow in the coming years, especially from customers in Asia.

In brief, journal articles are an important and valuable U.S. IP export, albeit often overlooked by many who focus on more recognizable IP exports in consumer goods, such as high-tech mobile devices or pharmaceuticals. Furthermore, since the U.S. is already the leader in this sector of the global economy, there is significant opportunity to *expand* these exports in the coming years. Given the current Administration’s stance on increasing exports and reducing the trade deficit—particularly with respect to China—one would expect OSTP to be sensitive to how its proposed policies

concerning copyrighted journal articles would impact U.S. organizations' ability to continue exporting these articles throughout the world. Unfortunately, the opposite appears to be the case.

The OSTP proposal would essentially eliminate this entire class of exports, forcing U.S. IP owners to give their copyrighted works away for free to China and the rest of the world. As a result, the U.S. would lose billions of dollars in foreign sales. Even worse, given that the federal government would be forced to fund the production of this IP under the OSTP proposal—paying with taxpayer funds for the hundreds of millions (if not billions) of dollars spent annually in organizing peer review, editing, formatting, standardizing, and networking and distributing reliable and high-quality journal articles—the U.S. federal government would effectively *subsidize* the consumption of U.S. journal articles that customers in foreign countries are currently paying for, and are perfectly willing to pay for, given the billions they already spend.

The OSTP proposal is completely out of step with the Administration's oft-stated goal of *safeguarding* American IP against free-riding by foreign governments and entities, and it would significantly damage U.S. competitiveness on the global stage at the very moment that China is challenging U.S. leadership in research innovation.

The OSTP proposal undermines vital copyright protections that sustain the scientific and medical publishing industry. It undercuts the incentives provided by reliable and effective property rights—copyrights—that lead to the investments necessary to produce high-quality scientific and medical journals.<sup>16</sup> It also jeopardizes the quality and quantity of American peer-reviewed journals, which serve a key role in communicating and advancing U.S. scientific research. Moreover, U.S. scientific societies that publish these journals serve an essential role in fostering and supporting American scientific, medical, and engineering talent.<sup>17</sup> Casting aside this world-leading framework would do untold damage to the U.S. research ecosystem.

## Chinese Ambitions

Meanwhile, China is actively working—through incentives like governmental subsidies—to increase the quality and quantity of Chinese journals.<sup>18</sup> These efforts include bolstering funding for Chinese journals and revising how China assesses its researchers in order to discourage Chinese researchers from publishing in non-Chinese journals.<sup>19</sup> If OSTP is permitted to erode the quality of U.S. research publications and undermine the scientific and medical societies and professional associations supported by these journals

that are core to supporting American researchers, China would be more than happy to step into the resulting void.

China has already made clear that it views the creation of world-renowned research journals as a key step in its efforts to become the global leader in research and innovation. This is integral to its long-term goals of dominating the cutting-edge fields of next-generational innovation like AI, just as it is currently working to dominate the deployment of 5G today.

The U.S. should not adopt policies that, in effect, actively support and subsidize China's domestic industrial and innovation policies—and it certainly should not do this when this directly contradicts the current Administration's explicit policies on trade and IP with China and the rest of the world.

## Conclusion

It is surprising that OSTP would consider a policy that turns the promise of federal research programs in the U.S. into a worldwide giveaway that weakens U.S. trade positions, subsidizes the access and use of this research by China (and the rest of the world), and ultimately weakens U.S. global leadership in science and medicine.

It is even more surprising, given that the OSTP proposal, which effectively nationalizes *hundreds of thousands* of copyrighted journal articles and creates a worldwide giveaway of the results of billions of dollars in both private and public funding of U.S. research, runs counter to the current Administration's policies on supporting strong IP protections and on countering the rising global challenge presented by China.

The OSTP proposal is not just at odds with current U.S. policies concerning trade and innovation, it is fundamentally counter to the constitutional function of copyright to promote the progress of science.<sup>20</sup> As the Supreme Court has recognized, copyright is “the engine that ensures the progress of science,”<sup>21</sup> because “copyright supplies the economic incentive to create and disseminate ideas.”<sup>22</sup> The professional associations and publishers that invest billions to create the tens of thousands of academic journals published each year exemplify this fact.

The Administration should not permit OSTP to eviscerate this key constitutional and economic function of copyright law. Nor should it allow OSTP to contradict its own policies on trade and IP. It should join with the Senators and Representatives, as well as hundreds of professional organizations and publishers, who have already raised serious legal, policy, and economic concerns about the OSTP proposal.<sup>23</sup> Thus, the Administration

should reject the OSTP proposal and reaffirm the vital role that copyright serves in securing the fruits of the productive labors of those who create and disseminate journal articles.

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## Endnotes

1. While OSTP has not released the text of the proposed policy, news broke in December 2019 about an Executive Order under consideration that would require immediate free access to these articles. See, e.g., Rebecca Trager, *American Scientific Publishers Panic Over Paywall Policy Rumors*, CHEMISTRY WORLD (Dec. 23, 2019), <https://www.chemistryworld.com/news/american-scientific-publishers-panic-over-paywall-policy-rumours/4010959.article> (last visited Apr. 27, 2020); David Kramer, *Potential White House Open-Access Edict Could Upend Scientific Publishers*, PHYSICS TODAY (Dec. 19, 2019), <https://physicstoday.scitation.org/doi/10.1063/PT.6.2.20191219a/full/> (last visited Apr. 27, 2020); Lindsay McKenzie, *Concern Raised Over White House Open-Access Policy*, INSIDE HIGHER ED (Dec. 20, 2019), <https://www.insidehighered.com/quicktakes/2019/12/20/concern-raised-over-white-house-open-access-policy> (last visited Apr. 27, 2020). The proposed Executive Order prompted serious concerns from Republican Members of Congress, scientific and medical societies, trade associations (e.g., the U.S. Chamber of Commerce, the Association of American Publishers, the Copyright Alliance, and the Software and Information Industry Association), and many others, which appear to have stalled the Executive Order. Nonetheless, OSTP is still actively considering the issue, including through a pending Request for Information that shockingly makes no reference to intellectual property or U.S. IP exports. See <https://www.federalregister.gov/documents/2020/03/31/2020-06622/request-for-information-public-access-to-peer-reviewed-scholarly-publications-data-and-code>.
2. Stephen E. Siwek, *COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: THE 2018 REPORT*, <https://iipa.org/files/uploads/2018/12/2018CpyrtRptFull.pdf> (last visited Apr. 27, 2020).
3. *Id.*
4. *Id.*
5. *Id.*
6. *Id.*
7. *Id.*
8. For a sense of the breadth of organizations that produce these articles, it is worth reviewing the list of over 100 American academies, associations, and societies that joined a December 18, 2019, letter to the President raising significant concerns with the OSTP's proposed policy. The letter is available at <https://presspage-production-content.s3.amazonaws.com/uploads/1508/lettertothepresidentfrom140researchandpublishingorgs-2.pdf?10000>. Among many others, signatories include the Infectious Diseases Society of America, the American Heart Association, the American Cancer Society, the American Medical Association, the New England Journal of Medicine, the American Institute of Chemical Engineers, the American Institute of Aeronautics and Astronautics, and the Crop Science Society of America.
9. See Adam Mossoff, *How Copyright Drives Innovation: A Case Study of Scholarly Publishing in the Digital World*, 2015 MICH. STATE L. REV. 955, <https://ssrn.com/abstract=2243264> (last visited Apr. 27, 2020) (detailing the substantial investments and costs in running modern scholarly journals).
10. See *id.* at 969–971 (detailing this mistaken perspective of how digital technology makes publishing low cost). See, for example, Jerome H. Reichman & Ruth L. Okediji, *When Copyright Law and Science Collide: Empowering Digitally Integrated Research Methods on a Global Scale*, 96 MINN. L. REV. 1362, 1461 (2012) (“[O]nce costly front-end publishing function has increasingly been reduced to desktop publishing and automated formatting, while the peer-review function, of great importance to the integrity of science, is performed gratis by scientists.”).
11. *Id.* at 970 (quoting Mark J. McCabe, *Online Access and the Scientific Journal Market: An Economist's Perspective 2* (Mar. 2013), [http://sites.nationalacademies.org/xpдио/groups/pgasite/documents/webpage/pgga\\_063400.pdf](http://sites.nationalacademies.org/xpдио/groups/pgasite/documents/webpage/pgga_063400.pdf)).
12. These paid employees and contractors additionally cultivate and coordinate extensive networks of volunteer peer-reviewers.
13. See Mossoff, *supra* note 9, at 969–986.
14. Others have also recognized this conflation between research and journal articles in OSTP's policy proposal and the justification offered for it. See, for example, Neil Turkewitz, *Academic Publishing: Beyond Intuition & Instinct* (Apr. 21, 2020), [https://medium.com/@nturkewitz\\_56674/academic-publishing-beyond-intuition-instinct-29375ecd0cdb](https://medium.com/@nturkewitz_56674/academic-publishing-beyond-intuition-instinct-29375ecd0cdb) (last visited Apr. 27, 2020).
15. See U.S. INVESTMENTS IN MEDICAL AND HEALTH RESEARCH AND DEVELOPMENT 2013–2018 (Fall 2019), at 5, [https://www.researchamerica.org/sites/default/files/Publications/InvestmentReport2019\\_Fnl.pdf](https://www.researchamerica.org/sites/default/files/Publications/InvestmentReport2019_Fnl.pdf) (last visited Apr. 27, 2020).
16. See Mossoff, *supra* note 9.
17. See *supra* note 8.
18. See David Cyranoski, *China Splashes Millions on Hundreds of Home-Grown Journals*, NATURE (Dec. 11, 2019), <https://www.nature.com/articles/d41586-019-03770-3> (last visited Apr. 27, 2020).
19. See Yojana Sharma, *China Shifts from Reliance on International Publications*, UNIVERSITY WORLD NEWS (Feb. 25, 2020), <https://www.universityworldnews.com/post.php?story=20200225181649179> (last visited Apr. 27, 2020).
20. See U.S. Const., art. 1, § 8, cl. 8.
21. *Eldred v. Ashcroft*, 537 U.S. 186, 212 n.18 (2003) (*American Geophysical Union v. Texaco, Inc.*, 802 F. Supp. 1, (S.D.N.Y. 1992), *aff'd*, 60 F.3d 913 (2d Cir. 1994)). In *American Geophysical Union v. Texaco*, the district court observed that “[a]uthors recognize that publishers have little incentive to assume the financial risks of publishing unless the publisher is protected from copying. Accordingly, it is commonplace for authors to assign their rights of authorship to publishers.” *Id.* at 27.

22. Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 558 (1985).
23. See Letter from Sen. Tillis to Secretary Ross and Director Mulvaney (Dec. 12, 2019), <https://copyrightalliance.org/wp-content/uploads/2019/12/Tillis-12.12-Ltr-to-DOC-and-OMB-re-Scientific-Journals.pdf> (last visited Apr. 27, 2020); Letter from Eight Members of Congress on the GOP Docs Caucus (Feb. 18, 2020), <https://copyrightalliance.org/wp-content/uploads/2020/04/Letter-to-President-Trump-Scientific-Journal-EO-Concern-Feb.-2020-1.pdf> (last visited Apr. 29, 2020).