

# IEEE-USA/ASME OP-ED Article

## THE HILL, published 11 April 2023

Excerpted from: <https://thehill.com/opinion/congress-blog/3943523-white-house-open-access-proposal-would-limit-research-and-innovation/>

## White House Open Access Proposal Would Limit Research and Innovation

Last August, the [White House Office of Science and Technology Policy \(OSTP\)](#) declared that researchers who want to continue to receive federal grants must make all scientific publications resulting from those grants publicly available. Referred to as “open access”, this seductively simple proposal isn’t all that simple.

Under its current plan, the OSTP’s efforts to immediately democratize research could end up limiting the best and most valued publishing assets to the wealthiest elite, while damaging America’s research ecosystem and its ability to innovate.

Here’s how:

Research results are communicated to the scientific community in the form of journal articles. The system for disseminating these technically complex research results has been a pillar of the scientific discovery process for centuries. It is the job of publishers, which are often nonprofit technical and scientific societies, to ensure that quality content is disseminated to the broader community across the lifespan of these articles, including updates, corrections, retractions, etc.

Publishers put these research submissions through a [rigorous process](#). For example, they recruit leading researchers to guide the articles through the peer-review process; revise, format, and index the article; and then provide it to the scientific, technical, engineering, and medical (STEM) communities through searchable, vetted, and verified scientific journals. Professional people such as doctors, scientists, engineers, and professors subscribe to those journals to stay current in their fields and advance the overall state of scientific progress.

In 2013, after a thorough process involving several rounds of public stakeholder input, the OSTP determined that taxpayers should be able to access the results of federal research and directed federal agencies to ensure that final published articles were made available free online after a year. The 12-month period allows publishers to recoup at least part of their costs by incentivizing subscriptions for readers who desire immediate access. This measure will eliminate the ability to recoup any part of the costs incurred in publishing.

Now, under OSTP's 2022 plan, final articles, or at least final texts, are being mandated to be made free online to everyone as soon as the publishers finish their work. This creates an obvious problem: who is going to pay to do the necessary work of creating a publishable article?

Producing high-quality scholarly articles is [expensive](#). A single journal [article](#) can cost thousands of dollars to produce, to say nothing of the archiving, updating, and other long-term aspects of the article. Circumvention of this process is not a desirable option as peer review over many years is essential to ensure the integrity of the research.

Non-profits cannot afford to perform this comprehensive service for free, and they should not be expected to.

The OSTP is proposing a drastic change to the system America uses to disseminate new scientific and technical knowledge — a system that has been demonstrably successful for 200 years. The latest mandate reflected a minimum of stakeholder consultation and congressional involvement. It lacks a current [cost/benefit analysis](#) and is silent on how necessary expenses will be allocated. Transparency was perfunctory at best.

Supporters of the OSTP policy ignore this basic truth: there is a cost associated with bringing science and technology research results to the public. Replacing the 12-month compromise with free, immediate accessibility is essentially an unfunded mandate on America's science and technology community.

While immediate open access is often couched in terms of expanding access in equity terms, for researchers it threatens to create a pay-to-play system benefiting the rich. While large corporations and well-funded universities may be able to absorb R&D publishing costs, smaller colleges and companies will struggle to function. For HBCUs, rural institutions, community colleges, and undergraduate-only programs, this policy will further strain already-tight research budgets and marginalize their contributions.

We all share the goal of open access for taxpayer-funded research. However, the current OSTP proposal fails to address the crucial funding mechanism which allows for the peer-reviewed publication of vital research. We are eager to work with OSTP and Congress on an equitable solution which provides the necessary funding streams while ensuring the American public has open access to taxpayer-funded research.

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