How can libraries prepare for the open access mandate set forth in the OSTP Nelson memo?
Today’s agenda

- Unpacking the implications of the OSTP Nelson Memo - Kate Byrne & Andrew McKenna-Foster
- Opening up research: roles and responsibilities for research librarians - Keith Webster
- Roundtable Discussion
- Q&A
Our Speakers

Kate Byrne
VP, Product Management
Symplectic

Andrew McKenna-Foster
Product Specialist
Figshare

Keith Webster
Dean of University Libraries
Carnegie Mellon University
Unpacking the implications of the OSTP Nelson Memo

Kate Byrne, VP Product Management, Symplectic
Andrew McKenna-Foster, Product Specialist, Figshare
So what does the OSTP memo say?

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

August 25, 2022

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Dr. Alondra Nelson
Deputy Assistant to the President and Deputy Director for Science and Society
Performing the Duties of Director
Office of Science and Technology Policy (OSTP)

SUBJECT: Ensuring Free, Immediate, and Equitable Access to Federally Funded Research

This memorandum provides policy guidance to federal agencies with research and development expenditures on updating their public access policies. In accordance with this memorandum, OSTP recommends that federal agencies, to the extent consistent with applicable law:

1. Update their public access policies as soon as possible, and no later than December 31st, 2025, to make publications and their supporting data resulting from federally funded research publicly accessible without an embargo on their free and public release;
2. Establish transparent procedures that ensure scientific and research integrity is maintained in public access policies; and,
3. Coordinate with OSTP to ensure equitable delivery of federally funded research results and data.

Source: Memorandum for the Heads of the Executive Departments and Agencies - August 25, 2022
Unpacking the scope of the Nelson Memo

1. Update their public access policies as soon as possible, and no later than December 31st, 2025, to make publications and their supporting data resulting from federally funded research publicly accessible without an embargo on their free and public release;

2. Establish transparent procedures that ensure scientific and research integrity is maintained in public access policies; and,

3. Coordinate with OSTP to ensure equitable delivery of federally funded research results and data.

Source: Memorandum for the Heads of the Executive Departments and Agencies - August 25, 2022
... "we received some follow-up communication from Dr. Nelson and her Office on the evening of Tuesday, 11 October. This led to a brief exchange in which the Office confirmed that the guidance document does, in fact, represent a non-binding set of recommendations, not a mandatory directive... “

- Rick Anderson, Scholarly Kitchen

Source: Thoughts and Observations on the OSTP Responses to Our Interview Questions - Rick Anderson and Karin Wulf - 13 October 2023
How have funders responded so far?

Statement on NIH plans to speed access to federally funded research results

August 25, 2022

Today, the White House Office of Science and Technology Policy (OSTP) issued updated policy guidance directing federal agencies to expedite access to results of federally funded research. NIH has long championed principles of transparency and accessibility in NIH-funded research and supports this important step by the Biden Administration.

Over the coming months, NIH will work expeditiously to develop and share its plans for implementing the OSTP policy guidance. NIH intends to work with interagency partners and stakeholders to revise its current Public Access Policy to enable researchers, clinicians, students, and the public to access NIH research results immediately upon publication. I am pleased to report that NIH’s efforts to maximize access to scientific data are already underway through implementation of the new NIH Policy for Data Management and Sharing (DMS Policy), which takes effect on January 25, 2023. Through the DMS Policy, NIH clearly articulates that sharing scientific data is fundamental to accelerating biomedical research discovery. Our DMS Policy implementation efforts continue, and I encourage you to visit sharing.nih.gov for the latest updates and resources that NIH has developed to support our community of researchers and institutions.

We are enthusiastic to move forward on these important efforts to make research results more accessible and look forward to working together to strengthen our shared responsibility in making federally funded research results accessible to the public.
How big a reach could it have?

According to a recent preprint by Eric Schares from Iowa State University analysing data from Dimensions:

1.32m
Estimated number of federally funded publications over the period 2017-2021
This represents 33% of all US research outputs over the same period.

32%
The proportion of federally funded publications not openly available in 2021
Compared to 48% of worldwide publications during the same period.

237
The number of federal funding agencies included in this study
Due to the removal of the $100m threshold, many more funders fall under the Nelson memo than the 2013 Holdren memo.

What does that look like for institutions?

How are faculty feeling about it all?

Drawing lessons from the State of Open Data Report 2022

Key message: The work of compliance is wearing on researchers

- 88% of researchers think OA articles should be common practice and 79% think research data should be openly available
- Researcher support for a national data sharing policy has decreased: 78% in 2019 → 68% in 2022.
- Lack of time is the main reason respondents did not adhere to their data management plan (35% of respondents)
  - Finding time to curate data is what respondents need the most help with (52%)

Where should you start?

- Understand your own Open Access (OA) landscape
  - Where are your researchers publishing and what OA pathways are they using to date
  - Exploring the data you have for your repositories
  - Beginning to overlay publishing data with grants data

- Review your system capabilities
  - Is your repository ready for both publications and data?
  - Do you have effective monitoring and reporting capabilities?
  - Are your systems researcher friendly?

- Consider how you will support your research ecosystem
  - Identify how you will support and incentivize your researchers
  - Plan communication points between stakeholders (Research Office, Library, Sponsored programs, IT)
  - Review institutional policies and procedures relating to publishing and open access
Research Management Infrastructure

Current Research Information System

- Harvest metadata from many sources
- Research profiles
- Reporting on impact and open access
- Faculty reporting

Elements

+ Repository

figshare

- Store papers and data in one place
- Compliance with open access policies
- Integrate within research ecosystem
Example: Elements OA Dashboard
## Example: Figshare review of system capabilities

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Workflows</th>
<th>Scalability</th>
<th>Integrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich &amp; flexible metadata schemas</td>
<td>Streamlined deposit workflows</td>
<td>Supports uploads of any file type</td>
<td>Open API for custom integrations</td>
</tr>
<tr>
<td>DOIs, Handles and other identifiers</td>
<td>Curation workflows for admins</td>
<td>Preview wide range of files in browser</td>
<td>RIMS system integration(s)</td>
</tr>
<tr>
<td>Capture funding related metadata</td>
<td>Collaborative workspaces</td>
<td>Open access &amp; restricted publishing</td>
<td>ORCID integration</td>
</tr>
<tr>
<td>Optimised for Search Engines</td>
<td>Create collections of related works</td>
<td>FTP for large file deposits</td>
<td>GitHub and GitLab integrations</td>
</tr>
<tr>
<td>Usage metrics, Citations, Altmetrics</td>
<td>Private links for targeted sharing</td>
<td>Support for large dataset files</td>
<td>OAI-PMH to support harvesting</td>
</tr>
</tbody>
</table>
### Growing maturity of your OA initiatives

<table>
<thead>
<tr>
<th>Systems</th>
<th>Data &amp; Monitoring</th>
<th>Services &amp; Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
<td>Publications repository with core metadata</td>
<td>Support for depositing publications &amp; data</td>
</tr>
<tr>
<td></td>
<td>Separate databases</td>
<td>Publishing advice</td>
</tr>
<tr>
<td></td>
<td>Tracking # of deposits to repository</td>
<td>Tracking OA publishing using curated data</td>
</tr>
<tr>
<td></td>
<td>Basic reporting on OA publishing</td>
<td>Support for depositing publications</td>
</tr>
<tr>
<td></td>
<td>Separate RIMs</td>
<td>Publishing advice</td>
</tr>
</tbody>
</table>

| **Level 2** | Separate publications and data repositories | Support for depositing publications & data |
| | Separate RIMs | Publishing advice |
| | Tracking publication and data deposits | Tracking OA publishing using curated data |
| | Monitoring % of works deposited and other OA pathways | Introducing grant data |

| **Level 3** | Separate Publications and Data Repositories integrated with RIMS |
| | Monitoring % of works deposited and other OA pathways |
| | Introducing grant data |
| | Streamlined workflows supporting OA engagement for publications and data |

| **Level 4** | Combined publications and data repository integrated with RIMS |
| | Proactive monitoring of OA publishing and deposits including compliance tracking |
| | Embedded OA engagement and compliance strategy for publications and data |
Opening up research: Roles and responsibilities for research librarians

Keith Webster, Dean of University Libraries
Carnegie Mellon University
Opening up research - roles and responsibilities for librarians
New White House Open Access Rules: How Libraries Can Help Researchers & Faculty Scale The Paywall

Sponsored by Digital Science

Scheduled for Wednesday, November 16 at 2:00pm
Posted in Open Access Resources for Academic Libraries

How can libraries prepare for the open access mandate set forth in the OSTP’s new memo?
New White House Open Access Rules: How Libraries Can Help Researchers & Faculty Scale The Paywall

Sponsored by Digital Science

Scheduled for Wednesday, November 16 at 2:00pm

Posted in Open Access Resources for Academic Libraries

How can libraries prepare for the open access mandate set forth in the OSTP's new memo?
August 25, 2022

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Dr. Alondra Nelson  
Deputy Assistant to the President and Deputy Director for Science and Society  
Performing the Duties of Director  
Office of Science and Technology Policy (OSTP)

SUBJECT: Ensuring Free, Immediate, and Equitable Access to Federally Funded Research

This memorandum provides policy guidance to federal agencies with research and development responsibilities on updating their public access policies. In accordance with this memorandum, OSTP recommends that federal agencies:

1. Update their public access policies as soon as possible, and no later than December 31st, 2025, to make publications and their supporting data resulting from federally funded research publicly accessible without an embargo on their free and public release;

2. Establish transparent procedures that ensure scientific and research integrity is maintained in public access policies; and,

3. Coordinate with OSTP to ensure equitable delivery of federally funded research results and data.
Outline

BUILDING THE CASE
What’s driving the OSTP? What might this look like?

STAKEHOLDERS
Who might be impacted? How might they respond?

ONE INSTIUTION’S PREP
How CMU has been working towards a culture of open sharing
The lessons of COVID-19

- Importance of open collaboration
- Provides policymakers with evidence
- Speeds up discovery and translation

Delivering public access provides near real-time returns on taxpayer investments
B U I L D I N G  T H E  C A S E

Opening science

- Open access to scientific knowledge
- Open science infrastructures
- Open engagement of societal actors
- Open dialogue with other knowledge systems
- Open science communication
Progress since 2013

- All agencies subject to memo developed policies
- 8 million articles freely available
- Shifted scientific culture to collaboration and sharing

It’s time to improve stop achieve delivery of federally funded research and data

BUILDING THE CASE

February 22, 2013

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: John P. Holdren
Director

SUBJECT: Increasing Access to the Results of Federally Funded Scientific Research

1. Policy Principles

The Administration is committed to ensuring that, to the greatest extent and with the fewest constraints possible and consistent with law and the objectives set out below, the direct results of federally funded scientific research are made available to and useful for the public, industry, and the scientific community. Such results include peer-reviewed publications and digital data.

Scientific research supported by the Federal Government catalyzes innovative breakthroughs that drive our economy. The results of that research become the grit for new insights and are assets for progress in areas such as health, energy, the environment, agriculture, and national security.

Access to digital data sets resulting from federally funded research allows companies to focus resources and efforts on understanding and exploiting discoveries. For example, open weather data underpins the forecasting industry, and making genome sequences publicly available has spawned many biotechnology innovations. In addition, wider availability of peer-reviewed publications and scientific data in digital formats will create innovative economic markets for services related to curation, preservation, analysis, and visualization. Policies that mobilize these publications and data for re-use through preservation and broader public access also maximize the impact and accountability of the Federal research investment. These policies will accelerate scientific breakthroughs and innovation, promote entrepreneurship, and enhance economic growth and job creation.

The Administration also recognizes that publishers provide valuable services, including the coordination of peer review, that are essential for ensuring the high quality and integrity of many scholarly publications. It is critical that these services continue to be made available. It is also important that Federal policy not adversely affect opportunities for researchers who are not funded by the Federal Government to disseminate any analysis or results of their research.

To achieve the Administration’s commitment to increase access to federally funded published research and digital scientific data, Federal agencies investing in research and development must have clear and coordinated policies for increasing such access.
Discover research from the **The NIH Figshare Archive**

- **247,708 views**
- **80,829 downloads**
- more stats...
PubMed Central® (PMC) is a free full-text archive of biomedical and life sciences journal literature at the U.S. National Institutes of Health's National Library of Medicine (NIH/NLM).

About PMC
Discover a digital archive of scholarly articles, spanning centuries of scientific research.

User Guide
Learn how to find and read articles of interest to you.

Collections
Browse the PMC Journal List or learn about some of PMC's unique collections.
From earlier….

1.32m ARTICLES 2017-2021
Which approximates to 264,000 articles per annum acknowledging federal funding,

32% ARTICLES NOT OPEN ACCESS
Which means roughly 84,480 articles each year are not readily available to the public

\[
(1\,320\,000 / 5) \times 32\% \times $3000 = 253.44 \text{ million US$}
\]
Publishers
Key players in the research reporting system - concerned about long-term impacts on business models

Societies
Many societies depend heavily on publishing revenue (direct programs or via license) to survive

Universities
Most want the products of scholarship to be readily available but need to understand costs and models

Researchers
Want to maximize impact of their research, with minimal fuss - seeking automatic approaches to open
**BREXIT**
Science funding and collaboration
UK sales into EU/FOREX
Workforce

**COVID-19**
Success of open sharing
Financial pressures
Loss of conferences (and time)

**RESEARCH FROM CHINA**
Shift away from Impact Factor
“Fewer but better”
Publishing in Chinese journals
Possible publisher responses

**AUTHOR MANUSCRIPT**
- Zero embargo unpleasant
- Version of record
- Ease of discovery
- Persistent rights

**GOLD OA**
- Sustainable revenue stream?
- Loss of rights
- “Secondary” brands

**HYBRID OA**
- Best of both worlds?
- Pipeline of content/double dipping
- Loss of rights
- Tipping point?
There’s an excess of funds which publishers/societies wish/need to protect.

- There’s roughly €7.6 bn p.a. in global subscriptions.
- Around 2m articles are published each year.
- Subscriptions yield €3,800 per article.
- If the market settled at €2,000 per article revenue would be €4bn p.a. (47% reduction).
- Transition issues: some will pay more and others will pay less.
- If those who should pay more can’t, or if those who will pay less get there more quickly, we have a problem.
Journal publishing service

Building upon the Janeway platform, we publish peer-reviewed journals and other scholarly works.

Institutional repository

We offer the Figshare platform, brand as KiltHub, for deposit of articles, conference papers, and other publications.
APC funding

We provide financial support for costs of open access fees in accepted journals and to support OA book publication.

OA agreements

We have negotiated a number of open access agreements allowing articles with CMU corresponding authors to be OA immediately.

Article Processing Charge (APC) Fund

The Libraries offer a number of ways to help you fund open access publishing, from providing funding to maintaining memberships that will help you pay less to publish your research. The Libraries maintains an Article Processing Charge (APC) fund to support our CMU authors who wish to publish open access. Eligibility criteria apply. Learn more in the APC Fund Research Guide.
Automated science and the data deluge

Robotic laboratories such as CMU’s new cloud lab

Cost savings in research infrastructure

Vast body of scholarly output

Reproducibility
National, Regional, and Global Trends in Infertility Prevalence Since 1990: A Systematic Analysis of 277 Health Surveys

Background

Global, regional, and national estimates of prevalence of and trends in infertility are needed to target prevention and treatment efforts. By applying a consistent algorithm to demographic and reproductive surveys available from developed and developing countries, we estimate infertility prevalence and trends, 1990 to 2010, by country and region.
July 26, 2022

Sloan Foundation Funds New Office to Support Open Source Activities

By Shannon Riffe

Carnegie Mellon University’s Helen and Henry Posner, Jr. Dean of the University Libraries Keith Webster has received a grant of $650,000 from the Alfred P. Sloan Foundation to establish the Carnegie Mellon University Open Source Program Office (OSPO). In addition to establishing a central resource for open-source activity across campus, the OSPO will explore the ecosystem of software around a new core facility and government R&D.

The newly created office will be led by G. Sayeed Choudhury, currently the associate dean for Digital Infrastructure, Applications, and Services and Hodson Director of the Digital Research and Curation Center at the Sheridan Libraries of Johns Hopkins University, home to the first university-based OSPO in the United States.
Roundtable Discussion
"What aspect of the Nelson Memo do you find most interesting in terms of its potential implications for the sector?"
Where do you see opportunities for universities and suppliers to work together to help make it easier for researchers to make their work openly available?