A CAPTIVATING FUTURE

The vital need for curation, access, preservation, and transparency in scientific communications

MIRL, November 17, 2021
Kathryn Funk, Program Manager, PubMed Central
US National Library of Medicine
Life at the US National Institutes of Heath (NIH) in 2021: 2 disclaimers.
In keeping with NLM’s legislative mandate to collect and preserve the biomedical literature, PMC serves as a digital counterpart to NLM’s extensive print journal collection.

https://www.ncbi.nlm.nih.gov/labs/pmc/about/intro/
PubMed Central in 2021.

- 7.4 million articles publicly accessible
- Archive of more than 2,500 journals
- Repository for dozens of funding organizations
- Currently undergoing a modernization effort

COVID-19 Response
- Public Health Emergency COVID-19 Initiative
- NIH Preprint Pilot

Funder Policies
- New strategic priorities that take a broader perspective and explore new approaches

Open Access Growth
- New strategies and models for achieving open access
Open research seeks to accelerate progress, but green OA can never deliver on this promise of an easily accessible, navigable, and interconnected Open Research ecosystem.

More than 800,000 funded author manuscripts archived in PMC.
"In a fully open access world, what is the need for PubMed Central?"

- Very kind, supportive funder rep
What is our role as digital libraries and repositories in a post-print, more open world?
TWO CURATORIAL RESPONSES TO A PANDEMIC

COVID-19 Initiative March 2020)

- Call to publishers from national advisors
- Broadly scoped effort
- Aim: Collect and make available in human- and machine-readable formats ALL articles reporting COVID-19 and coronavirus research in PMC

NIH Preprint Pilot (June 2020)

- Builds on PMC roles as repository for NIH and NIH guidance on preprints
- Narrowly scoped effort
- Aim: Collect and make preprints reporting NIH-supported research on COVID-19 discoverable in PMC and PubMed
Rethink proxies for quality control that may otherwise traditionally be associated with journals

Taking a risk has given us a voice to advocate for best practices in preprint management
Nearly half of the preprints included in the pilot were posted to medRxiv.

NLM considers preprint server policies and practices as well as volume of NIH-supported researcher, scope, and open infrastructure.

https://www.ncbi.nlm.nih.gov/labs/pmc/about/nihpreprints/#eligible
2,810 preprint records
Available in PMC and PubMed.

51% linked
To a published journal article

100 days
Average time from preprint posting to journal publication
RETHINKING ACCESSIBILITY

FREE TO READ

MACHINE ACCESS

ACCESSIBLE FORMATS

EQUITABLE ACCESS

- Mobile optimization
- Scientific literacy
- XML, HTML, EPUB, etc.
- Strategies for enabling accessibility
- PMC Open Access Subset
- Author Manuscript Dataset
- PMC as an open archive
- NIH Public Access Policy
TOOLS FOR EXPANDING ACCESS

Organizations and open infrastructure advocates are rethinking access to the literature and how to achieve it.

https://papertohtml.org/
LICENSING

COVID-19 Initiative
- “secondary analysis and reuse”
- Introduction of timebound licenses in PMC

cOAlition S
- CC-BY requirements
- Rights retention strategy

NIH guidance preprints
- CC-BY or public domain
- Pilot is limited to full text archiving of CC licensed preprints

The goal being to maximize the impact of the research.
PRESERVING A NEW SCIENTIFIC RECORD

There is a growing need for repositories to take the lead in managing and preserving a record of versions and interconnected research objects.
PREPRINTS ARE PART OF THE SCHOLARLY RECORD.

2,800 preprint records in PubMed → Cited by more than 18,000 papers → Which in turn have been cited by >130,000 papers

https://icite.od.nih.gov/analysis#
SARS-CoV-2 Screening Testing in Schools for Children with Intellectual and Developmental Disabilities


BACKGROUND: Transmission of SARS-CoV-2 in schools primarily for typically developing children is rare. The objectives of this study were to determine SARS-CoV-2 positivity and in-school transmission rates using weee ...

PMID: 34465306  Free PMC article.
Digital archiving is an ongoing commitment.

- Updated versions
- Corrections and Retractions
- Findings of Research Misconduct

Clinical characteristics and outcomes of patients with COVID-19 pneumonia admitted to an intensive care unit in Faisalabad, Pakistan

Noor Gul, Umer Usman, Umair Ahmed, Majid Ali, Aamir Shaukat, Mehar Muhammad Imran
PMCID: PMC8250080

Implementation of a telemedicine service during COVID-19 pandemic in Pakistan

Muhammad Haneef Nagra, Sumaira Ehsan, Umair Ahmad, Majid Ali, Hafiz Amjad Hussain, Abu Bakar
PMCID: PMC8237018

Family planning in COVID-19 times: access for all

Marleen Temmerman
PMCID: PMC8131077

Methylene blue photochemical treatment as a reliable SARS-CoV-2 plasma virus inactivation method for blood safety and convalescent plasma therapy for COVID-19

Changzhong Jin, Bin Yu, Jie Zhang, Hao Wu, Xipeng Zhou, Hangping Yao, Fumin Liu, Xiangyun Lu, Linfang Cheng, Miao Jiang, Nanping Wu
PMCID: PMC8060991

https://www.ncbi.nlm.nih.gov/pmc/?term=pmc+phe+collection%5Bfilter%5D+AND+%22is+retracted%22%5Bfilter%5D&cmd=DetailsSearch
Preprint Survey Findings

We wanted to get an understanding of whether “preprint” was a familiar term/concept.

➔ Researchers and Librarians
Were very familiar with preprints (75% and 100%, respectively)

➔ Students and Educators
Were somewhat familiar with preprints (60% and 67%, respectively)

➔ Healthcare Providers & Journalists
Were less likely to be familiar with preprints (57% and 50%, respectively)

The largest respondent groups included researchers, healthcare providers, and students.
Preprint Discovery in NLM Databases

1. Search engines (e.g., Google, Bing)

2. PubMed search

3. Social media (e.g., Twitter, Facebook)
You are viewing a preprint version of an article. This article has not yet been published in a peer-reviewed journal.

A preprint is the author’s version of a scientific article that is generally made public prior to peer review and acceptance for journal publication. A preprint may represent a work in progress or the version of an article submitted to a journal.

Preprints indexed in National Library of Medicine databases report research supported by the U.S. National Institutes of Health (NIH).

- View Less

You are viewing a preprint version of an article. A peer-reviewed version of this article is now available.

+ Expand to learn more

You are viewing the peer-reviewed, accepted author manuscript version of an article.

The author’s accepted version (AAM) the version of a scientific article that been accepted for journal publication. It includes all modifications from the peer review process. It may not include later changes by the publisher, such such as copyediting and stylistic edits, and formatting changes.

AAMs indexed in NLM databases report research supported by the U.S. National Institutes of Health (NIH) and other PMC and Europe PMC partner funders.

- View Less
In our own policies and practices
In display of content
In peer review / peer review status
In funding
In competing interests
In data sharing
A need to rethink

- How we communicate updates to the scientific record
- How we communicate about content source / the role of an archive
- How we reflect article status downstream in the repository

Transparency as a means to ensuring trust.

Facemasks in the COVID-19 era: A health hypothesis

Baruch Vainselboim

Abstract

Many countries across the globe utilized medical and non-medical facemasks as non-pharmaceutical intervention for reducing the transmission and infectivity of coronavirus disease-2019 (COVID-19). Although,
What is our role as digital libraries and repositories in a post-print, more open world?
We have an opportunity to rethink our role in a digital landscape and see our repositories not simply as an extension of our print collecting, but as dynamic resources that represent our values and priorities to the public through our curation policies, our approaches to thinking about and providing access, and in our commitment to preservation of and transparency in the scientific record.
THANKS!

Any questions?

Feel free to reach out directly:
kathryn.funk@nih.gov