

Rethinking Library's Role in Open Access Content: Issues and Challenges

Vale Annual Conference
January 7, 2022

Jia Mi
Electronic Resources/Serials Librarian



What is Open Access

- OA2020 vision is “gain immediate, free and unrestricted access to all of the latest, peer-reviewed research”.
- OA2020 is a global research performing and research funding organizations working together to accelerate the transition to open access.



Where is Made Open

- Articles are self archived by the author in a repository
- DOAJ

- Published on the journal's website or any other publisher-owned platform

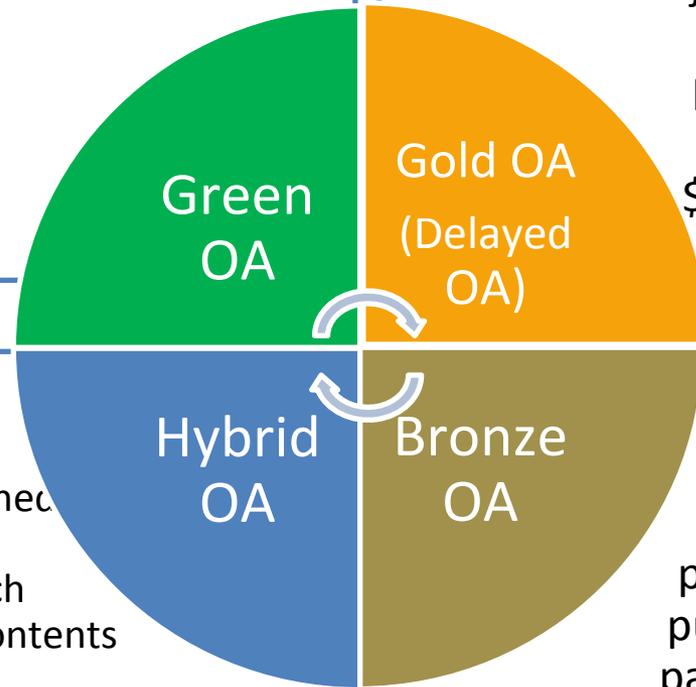
Other locations

- Author's personal websites
- academic social networks
- file sharing sites

widespread, and easier for readers to discover

- Articles published in a subscription journal in which some of the contents are open
- Elsevier, OUP, Sage

- Articles published on a publisher's web page, but do not have an OA license



WHAT IS MADE OPEN



Author's original, also called a preprint.

Stage 1

Authors usually retain copyright over this version of the manuscript



Accepted manuscript

State 2

From this stage, copyright is typically assigned to the publisher, or an exclusive license is granted.



Version of record

Stage 3

This is the final published, citable article available from the journal's website.

WHEN IS MADE OPEN

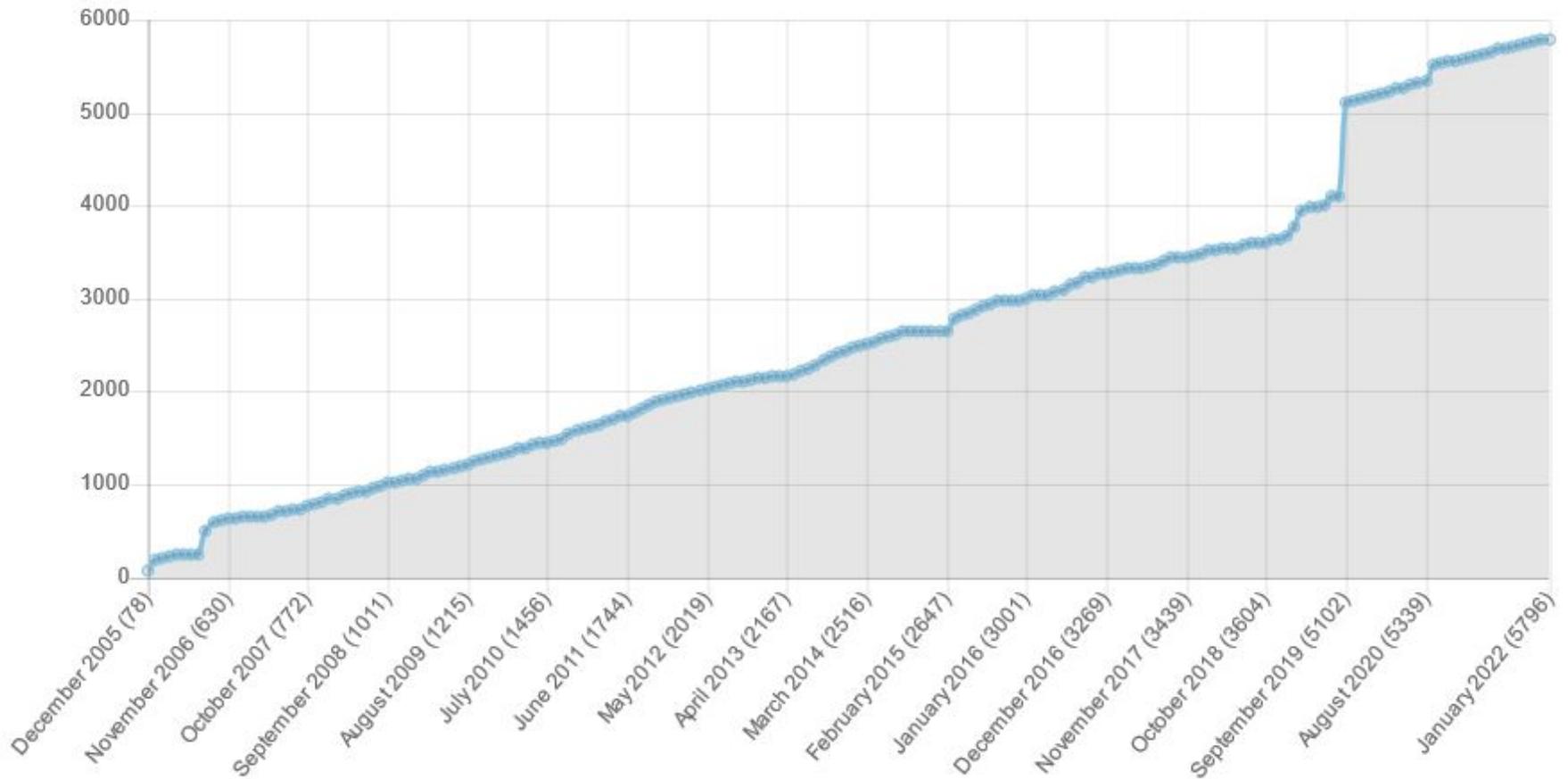
prior to (formal) publication

immediately on publication

After publication (an "embargo" period).



Growth of OpenDOAR



The Growth of Open Access According to OpenDOAR Global Directory of Open Access as of January 2022 (Sources: https://v2.sherpa.ac.uk/view/repository_visualisations/1.html)

Open Access and the Current Publishing Landscape



- “With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo.”

What's Driving Growth?

01	Funder Mandates	<ul style="list-style-type: none">• 87 mandates registered with ROAR• Bill & Melinda Gates• European Commission
02	Institutional Mandates	<ul style="list-style-type: none">• 862 mandates registered with ROAR• Harvard, MIT, University of Toronto, Duke
03	Transformative Deals	<ul style="list-style-type: none">• Read and Publish/Publish and Read• SAGE and CRKN, Yale and PLoS, OUP and Jisc

15K

Purely OA Journals

Articles in these journals are frequently available through discovery systems.



- *MMWR*
- *Living Reviews in Relativity*
- *Genome Biology*
- *Journal of Statistical Software*
- *World Psychiatry*

40M

OA Articles

Many OA articles are found in "hybrid journals" and can be hidden without an indexed record or content subscription.



- *Nature*
- *Science*
- *Quarterly Journal of Economics*
- *Review of Educational Research*
- *Journal of Finance*

51%

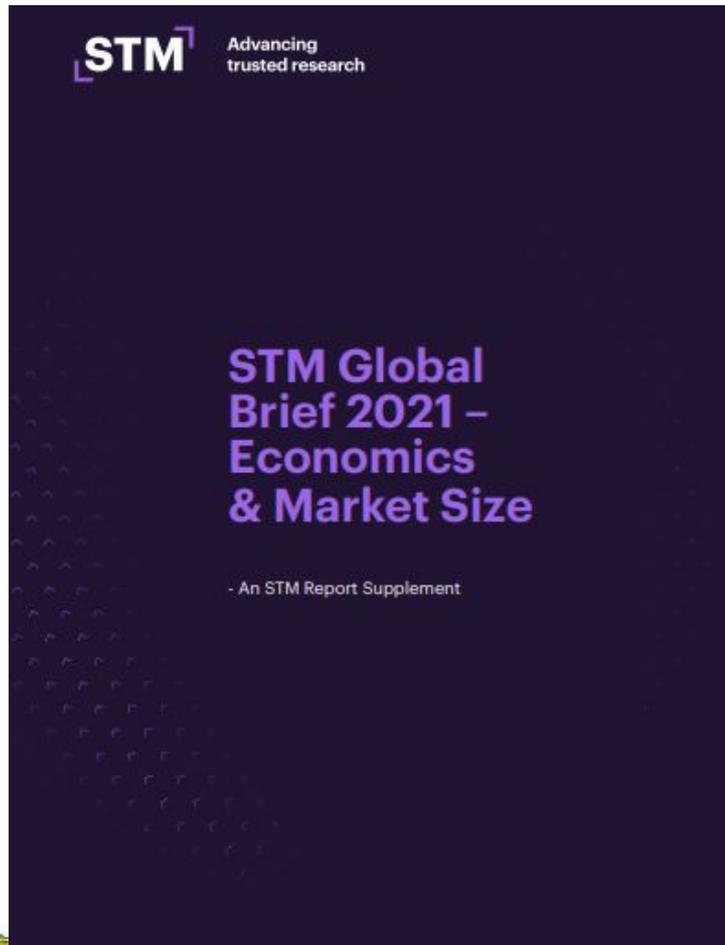
OA Publication Rate

According to data from Lens.org 51% of articles published in 2020 are available through OA.



- *Rate varies by discipline*
- *More OA in STEM fields*
- *Social Sciences well represented*
- *Humanities less article driven*

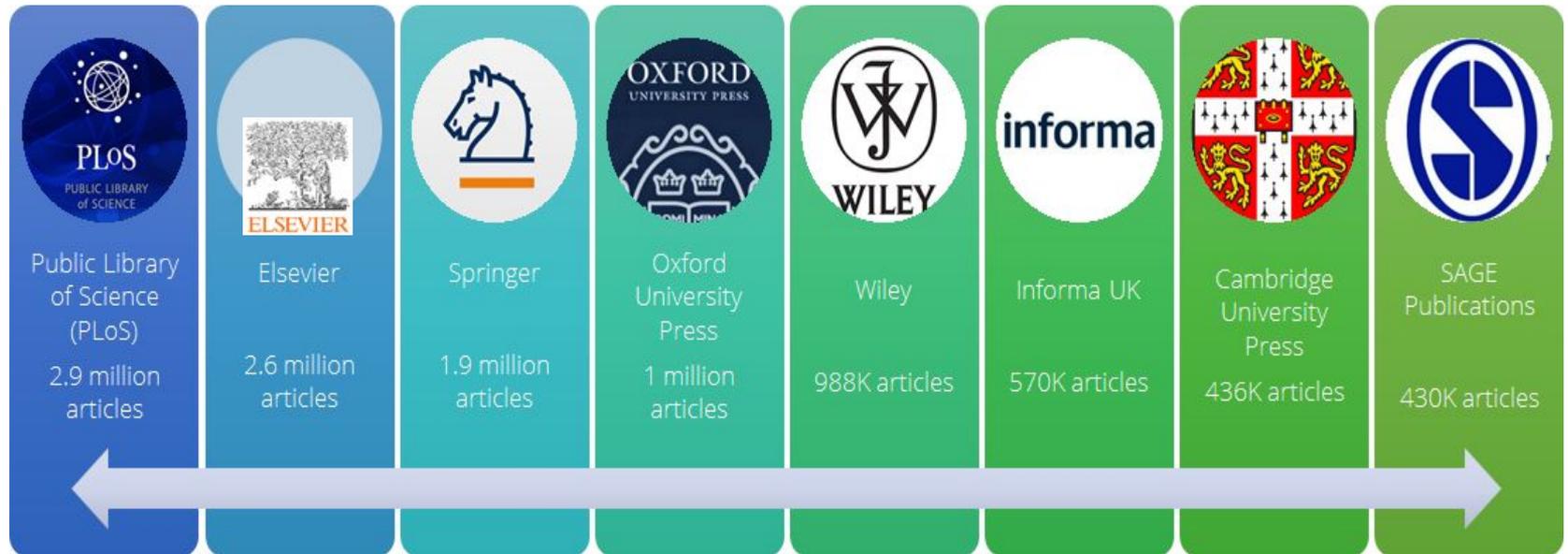
Open Access Content Publishing



Open access publishing is growing fast, with revenues projected to increase at 11.5% and output at 12.5% (compound annual growth rates) from 2019-2022.

The report reveals significant publisher-driven growth in [Open Access](#) (OA) and continued dynamism in the scholarly communication ecosystem.

Who Are the Publishers?



Data gathered from Unpaywall.org and The Lens.

Open Access Content from Publishers

The Open Access Race: Springer Nature Announces One Million Articles



In News by Porter Anderson / December 2, 2021 / Leave a Comment



Saying 34 percent of all its articles and 16 percent of its primary research is published under open access, Springer Nature proclaims leadership in the field.



2233 OA articles in 2019
61% OA

What is Unsub

- Unsub is an analytic dashboard that helps academic librarians cancel their subscriptions to ‘big deals’.
- The model accounts for the effect of OA (green, hybrid, bronze, and delayed), COUNTER downloads, previously-purchased backfile, interlibrary loan, document delivery, and then shows how that all affects fulfillment rates and costs.

In short: by helping libraries cancel big deals, it makes toll-access publishing less profitable, and accelerates the transition toward universal **Open Access.**

What is Unsub

5yr Forecast

Parameters

Export

\$190,148

Annual cost (115%)

72.2%

Access

- 169 +

Subscribed journals



Annual cost



Usage fulfillment



218 journals, arranged by Cost Per Use (CPU)



574 additional journals with CPU > \$100

APCs at TCNJ

3 journals paid by authors from your institution

Search journals  

Title	OA type	APC price	Number APC papers	Total fractional authorship	APC Dollars Spent
Applications in plant sciences	gold	\$1,500	0.2	0.1	\$120
International journal of cancer	hybrid	\$4,600	0.2	0.0	\$40
Physiological reports	gold	\$1,700	0.2	0.0	\$24

“The open content landscape is massive and unwieldy. Librarians at large universities, even those with dedicated scholarly communication librarians, were as likely to cite being overwhelmed and under-informed as were those from smaller staffed institutions.”

OA in the Open: Community Needs and Perspectives, Rebecca Kennison, Judy Ruttenberg, Yasmeen Shorish, Liz Thompson. September 11, 2019.

Library Journal Survey: Academic Library Open Access Use Up During Pandemic

- The report includes data about availability and usage of OA and OER content in U.S. academic libraries, as well as how OA content is curated.
- The survey received responses from 234 institutions and was sponsored by SirsiDynix.

Library Journal Survey: Academic Library Open Access Use Up During Pandemic

None of the respondents said they were very confident in the thoroughness of their OA collection.

54% are not confident that their library's OA collection is comprehensive

68% cannot estimate OA overlap with current subscriptions

57% cannot estimate the percentage of current scholarly article publications are available OA

84% expressed concern about including OA content that has not been peer-reviewed in discovery

47% feel it is "extremely important" for the library to include OA and OER content in library discovery

36% percent of respondents who work in libraries not currently curating OA and OER resources nonetheless feel this is very important.

“New” Challenges in Library Discovery

Library discovery drives only a small percentage of traffic to publisher sites.

Springer Link (2016) : 50% from Google/Google Scholar/Bing; 20% from abstracting services, repositories, as well as library sources, including OPACS and discovery services”

Current Web scale discovery could not easily support discovery and linking to Open Access articles, particular for Green OA and Open Access articles in hybrid Journals.

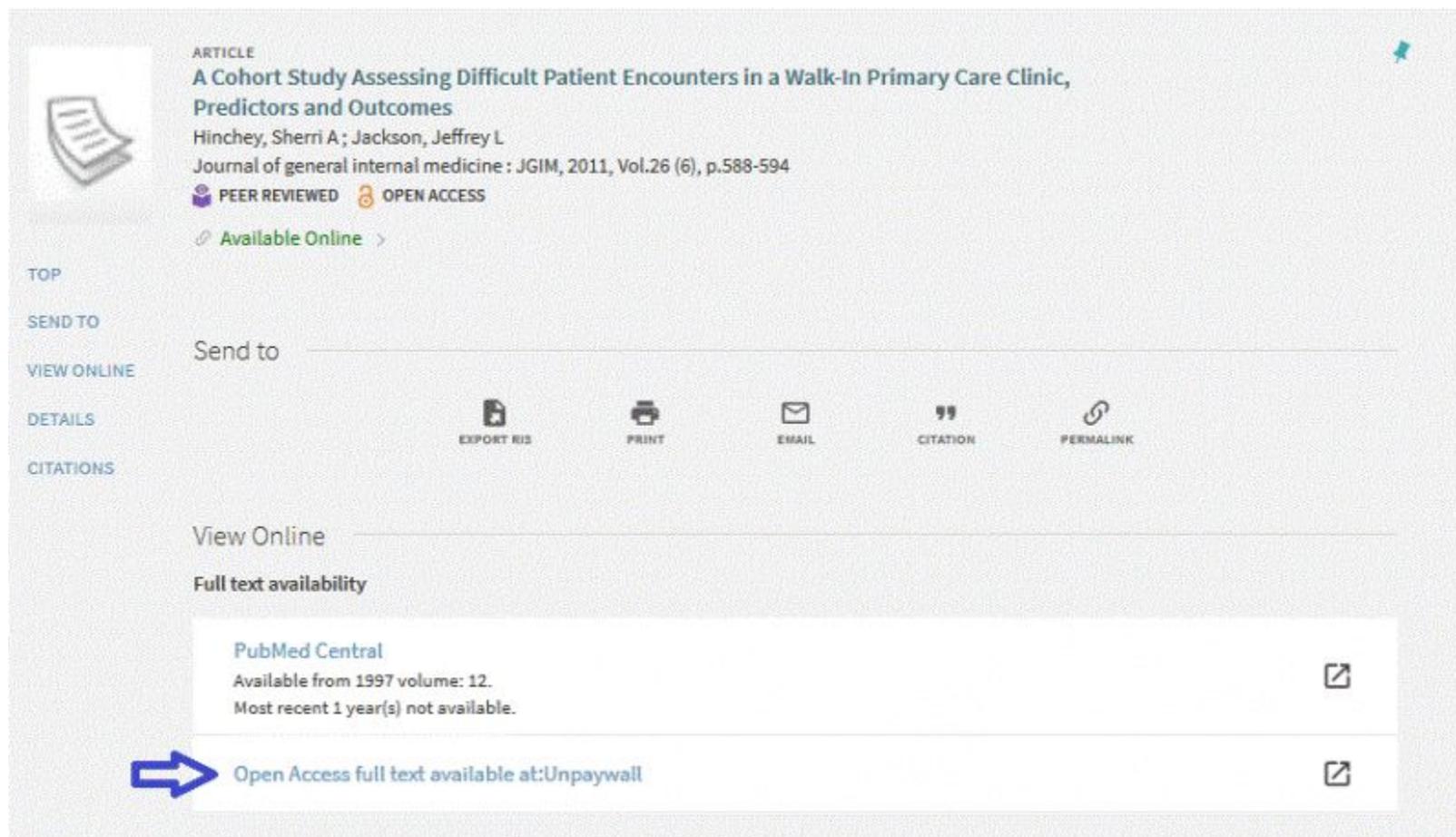
How do we ensure our open access content (and in particular the versions they are in) are properly discovered and represented?

Activate OA Collections in Alma

- DOAJ
- PLoS
- Biomed Central
- AIP Open Access – Link in record
- Wiley Open Access - Link via Link resolver
- Oxford Journals Open Access - Link in record
- Taylor & Francis Online - Journals - Open Access - Link in record
- JSTOR Journals: Open Access - Link in record
- SAGE Open Access Journals - Link in record

- **Many records for one article** - Article level metadata for a single article may be available from a journal publisher, from an aggregator, from an institutional repository, from a subject repository, and from additional parties like CrossRef. In some cases, these records may pertain to different versions of the article. Users would find it frustrating to stumble upon several records for the same article in their search.
- **OA indicator appears without any OA link** - OA resources has a visual indicator. Sometimes, OA versions records are often merged with records of closed-access versions. When this occurs, the OA indicator is retained. It is confusing.
- **Privilege resolver links over OA direct links brought many issues**
 - OA repository usually supply direct links for the authors depositing articles from any given journal rather than complete volumes or issues. When merging with closed-access versions, then link resolver is used that will require login.
 - Resolver links likely result in more users hitting dead ends.
 - Ex Libris prefer Resolver links that are prone to errors of many kinds., especially when an article is missing a DOI.
- **Missing OA from Hybrid Journals** - the records of hybrid journals from major publishers most rely on resolver links, and if a library lacks a subscription to a journal with some OA articles, then those records may not show up as having any full text access.

Improving linking with Unpaywall API in Alma/Primo VE



ARTICLE

A Cohort Study Assessing Difficult Patient Encounters in a Walk-In Primary Care Clinic, Predictors and Outcomes

Hinchey, Sherri A ; Jackson, Jeffrey L
Journal of general internal medicine : JGIM, 2011, Vol.26 (6), p.588-594

PEER REVIEWED OPEN ACCESS

Available Online >

TOP

SEND TO

VIEW ONLINE

DETAILS

CITATIONS

Send to _____

EXPORT RIS PRINT EMAIL CITATION PERMALINK

View Online _____

Full text availability

PubMed Central Available from 1997 volume: 12. Most recent 1 year(s) not available.	✕
Open Access full text available at:Unpaywall	✕

Unpaywall

- ***Unpaywall*** is a service that maintains a database of links to full-text articles from open-access sources all over the world. The content is harvested from legal sources including repositories run by universities, governments, and scholarly societies, as well as open content hosted by publishers themselves. Unpaywall focuses on providing greater access to several types of open content.
- **Green OA content:** Unpaywall captures OA versions of articles – generally manuscript versions – that authors have posted in repositories.
- **Hybrid OA content:** Unpaywall captures individual articles which are available OA directly from the publisher, in a journal which is otherwise available only by paid subscription.
- **Full OA journal content:** Unpaywall captures articles which are published in full OA journals and indexed in the Directory of Open Access Journals or other sources.

Library Discovery and Open Access Challenge

- If library really want to stay in the discovery business, we need to be able to efficiently and effectively cover the increasing pool of open access resources.
 - Search engines and aggregators [Google Scholar](#), [BASE](#), [CORE](#)
 - OA finding tools [Unpaywall](#), [OAbutton](#), [LibKey Nomad](#), [Kopernio](#), [Lazy Scholar](#)

Enhancing the Discovery of OA Content: LibKey Nomad Extension

Active filters: Reference Entries X, Reviews X, Peer-reviewed Journals X, Open Access X, Remember all filters, Reset filters

Refine Results: Expand My Results

Sort by: Relevance

Limit To: Available online

Resource Type: Articles (574,670), Conference Proceedings (14,313), Text Resources (755), Book Chapters (65), Journals (10), Show More, Newspaper article search

Subject: Science & Technology (412,144), Life Sciences & Biomedicine (250,232)

0 Selected PAGE 1 385,024 Results Personalize

ARTICLE
Response of Karakoram-Himalayan glaciers to climate variability and climate change: A regional climate model assessment
Kumar, Pankaj; Kotlarski, Sven; Moseley, Christopher; Sieck, Kevin; Frey, Holger; Stoffel, Markus; Jacob, Daniela
Geophysical research letters, 2015-03-28, Vol.42 (6), p.1818-1825
" ... To interactively describe to response of glaciers to climate change, a glacier parameterization scheme has been developed and implemented into the regional climate model REMO... "

PEER REVIEWED OPEN ACCESS

Download Now Available Online >

View Issue Contents

ARTICLE
A Framework for the Development of New Socio-economic Scenarios for Climate Change Research: Introductory Essay: A Forthcoming Special Issue of Climatic Change
Nakicenovic, Nebojsa; Lempert, Robert J.; Janetos, Anthony C.; Nakicenovic, Nebojsa; Janetos, Anthony C.; Lempert, Robert
Climatic change, 2014-01-30, Vol.122 (3), p.351-361
" ... This article is part of the Special Issue on "A Framework for the Development of New Socio-economic Scenarios for Climate Change Research" edited by Nebojsa Nakicenovic... "

PEER REVIEWED OPEN ACCESS

Download Now Available Online >

View Issue Contents

ARTICLE
Adapting to water impacts of climate change: Introduction to special issue of Climatic Change
Javeline, Debra; Dolšak, Nives; Prakash, Aseem; Prakash, Aseem; Dolšak, Nives; Javeline, Debra
Climatic change, 2019-01-09, Vol.152 (2), p.209-213
" ... 07/12/2018 Online Date: 09/01/2019 Article note: This article is part of a Special Issue on BAdapting to Water Impacts of Climate Change... "

PEER REVIEWED OPEN ACCESS

Download Now Available Online >

View Issue Contents

NCBI Resources How To Sign In To NCBI

PubMed antibiotic resistant bacteria Search

Create RSS Create alert Advanced Help

Article types: Clinical Trial, Review, Customize ...

Text availability: Abstract, Free full text, Full text

Publication dates: 5 years, 10 years, Custom range...

Species: Humans, Other Animals

Clear all Show additional filters

Format: Summary - Sort by: Best Match - Per page: 20 - Send to: Filters: Manage Filters

Your default sort order has been changed to Best Match. To switch back to Most Recent, click here.

Search results: Items: 1 to 20 of 159360

Results by year: Download CSV

PMC images search for antibiotic resistant bacteria

Find related data: Database: Select Find items

Best match search information: papr: anti bacterial agents, MeSH Terms: anti-bacterial agents; bacteria; Subheading: microbiology

1. Selection and Transmission of Antibiotic-Resistant Bacteria
Anderson DI, Hughes D.
Microbiol Spectr. 2017 Jul 5(4). doi: 10.1128/microbiolspc.MTPB-0013-2016. Review.
PMID: 28752817
Access Options...

2. The disparate effects of bacteriophages on antibiotic-resistant bacteria
Torres-Barceló C.
Emerg Microbes Infect. 2018 Oct 10;17(11):168. doi: 10.1038/s41426-018-0169-z. Review.
PMID: 30302018 Free PMC Article
Download PDF View Complete Issue

3. Microbial approaches for targeting antibiotic-resistant bacteria
Wong WF, Santiago M.
Microb Biotechnol. 2017 Sep 10;5(10):1047-1053. doi: 10.1111/1751-7915.12783. Epub 2017 Aug 3. Review.
PMID: 28771951 Free PMC Article
Download PDF View Complete Issue

4. Antibiotic-resistant bacteria: a challenge for the food industry
Capita R, Alonso-Calleja C.
Crit Rev Food Sci Nutr. 2013;53(11):11-48. doi: 10.1080/10408398.2010.519837. Review.
PMID: 23035919
Download PDF View Complete Issue

5. Molecular mechanisms of antibiotic resistance
Blair JM, Webber MA, Baylaj AJ, Ogbolu DO, Piddock LJ.
Nat Rev Microbiol. 2015 Jan 13;13(1):42-51. doi: 10.1038/nrmicro3360. Epub 2014 Dec 1. Review.
PMID: 25435309
Download PDF View Complete Issue

- LibKey Nomad consults the Library's holdings data and open access alternatives to determine the best place to source the article from.

Enhancing the Discovery of OA Content



Library / LibGuides / Open Access / Open Access to Research - A list of useful resources

Open Access: Open Access to Research - A list of useful resources

This guide is intended to provide advice on open access to researchers

Introduction | The Research Portal | OA Policy for RBT | New UKRI Open Access Policy | Wellcome Trust, CHIRX, & BPP OA Policies | Gold Open Access

Meet the Open Research Team | Training and Support | Impact of Open Access | Open Access to Research - A list of useful resources

Open Access to Research - A list of useful resources

Queen's University Belfast is committed to supporting open access (OA) for the purposes of preservation, increased dissemination and potential increased impact of research.

The purpose of this guide is provide Queen's Staff and Students with a list of resources that can provide access to freely available, scholarly papers across multi-disciplines.

Queen's and Open Access



Queen's Research Portal: The University's Institutional Repository has thousands of Queen's publications available to read and download.

Open Access to Research - CORE



CORE: largest aggregator of open access research papers in the world.

CORE's mission is to aggregate all open access research outputs from repositories and journals worldwide and make them available to the public.

Open Access to Research - Open Access Button



Open Access Button: you can use this service to access free and legal research articles.

The Open Access Button does not use content from ResearchGate or Academia.edu.

Open Access to Research - Directory of open access journals



DOAJ: Directory of Open Access Journals indexes and provides access to high quality, open access, peer-reviewed journals.

Open Access to Research - OpenDOAR



OpenDOAR: Directory of Open Access Repositories.

OpenDOAR is a quality-assured global directory of academic open access repositories. It enables

Open Access to Research - Unpaywall



UnPaywall: A browser extension that provides access to an open database with over 20 million free scholarly articles



Study at Cambridge | About the University | Research at Cambridge | Quick links

eResources / Search and discovery tools / Search Open Access

Cambridge Libraries

Home | Libraries Directory | Libraries Map | Library Training

Search Open Access

Cambridge Libraries

eResources

Search and discovery tools

- Ask Cambridge Libraries
- Document delivery services
- Open Access browser plugins
- Search Open Access

Access full text anywhere

Accessing & using e-resources

Newspapers

ebooks & e-journals

Databases

ebooks

Contact us

Our selection of the leading and trusted sources to find OA content

Search engines geared to Open Access discovery

These search engines include Open Access content, or are built on OA infrastructure and enabled for filtering to OA articles and book chapters

+ Read more

Open Access publishers and directories

Select the OA platforms most relevant for your subject area and catalogues to search exclusively for OA publications

+ Read more

Need help? For help with access journals@lib.cam.ac.uk Tel: +44 (0) 1223 336344

Quick links

- Search | Discover
- e-resources home
- Document delivery

Engage with us

Follow us on Twitter

Tweets by @ejournal

Electronix @ejournal Browser plug-ins

Best Practice in OA Management

- TERMS (Techniques in E-Resource Management Systems)
 - Investigating new content for purchase or addition.
 - Acquiring new content.
 - Implementation.
 - Ongoing evaluation and access.
 - Annual review.
 - Cancellation and replacement review.

Policy and Engagement

- Engage with Open Access policy
 - Check the [Registry of Open Access Mandates and Policies \(ROARMAP\)](#) and others to develop a schema for funders' and institutions' OA policies
 - Copyright and Licensing
 - Creative Commons license (CC BY 4.0, CC BY-NC-ND)
 - Check publishers' OA policy documented in our [SHERPA/RoMEO](#) service
 - Agreements must reduce and constrain costs
 - Agreements must be transitional
 - Agreements must aid compliance with funder mandates
 - Agreements must be transparent
 - OA content must be discoverable, and agreements must support improvements in service and workflow for authors and administrators
- <https://www.jisc.ac.uk/content/open-access/our-role>

New Challenges and Opportunities

- Shifting role : The "[inside-out library](#)" was a concept coined by Lorcan Dempsey
- Reassuring and providing users of the quality of OA articles
- Pinpointing predatory journals
- Understanding and Managing copyright
- Making OA sources discoverable
- Boosting collaborations with college research offices and grants administrators in ways that will affect change of OA

Questions

Jia Mi

Electronic Resources/Serials Librarian

R. Barbara Gitenstein Library

The College of New Jersey

jmi@tcnj.edu