Enabling open science

Katarzyna Gaca-Zając, PhD Eng.
k.gaca-zajac@elsevier.com

What is open science to you?

Global approaches to open science

- **European Commission's 3 main policy goals for research and innovation are open innovation, open science and open to the world.**

- **Open Science Policy Platform → recommendations based on 8 priorities:**

  - FAIR Data
  - Publishing models for OA
  - Open Science Cloud
  - Alternative Metrics

  - Rewards
  - Research integrity
  - Citizen Science
  - Skills & Training

More

inclusive

Open access (OA)

- **Free and permanent access to scholarly research for everyone**
- **Referred to as Public Access in the US**

Gold open access

✓ Final version of an article is immediately accessible to everyone

✓ Cost of publishing is recovered upfront
  - Typically as an Article Publishing Charge (APC)

Green open access

✓ A version of a subscription article is made freely available

✓ Relies on the subscription model to continue to operate
  - Usually after an embargo period
  - Normally a draft copy of the article but can also be the final version

Global funder perspective

OSTP
US Federal Agencies formulating policies following OSTP memo:
- Research results available within 12 months of publications
- Make unclassified data available to the public

Canada
- Gold - permitted, no additional funding provided
- Green -12 months embargo

HEFCE
- Gold – permitted, no specific license, no new funding
- Green - Deposit AM in repository (12/24 month embargo)

UKRI
- Gold – preferred, with funding available, CC BY
- Green - 12/24 month embargo

Wellcome Trust
- Gold – preferred, with funding available, CC BY
- Green – 6 month embargo and deposit in PMC

Department of Energy (DOE)
- Deposit within 12 months of publications

Howard Hughes Medical Institute (HHMI)
- Deposit in PMC within 12 months of publication

FWF (Austria)
- Gold – CCBY, funding available
- Green: 6 /12 month embargo

JST and JSPS
- Green – focused
- Gold - permitted

National Natural Science Foundation of China (NSFC)
- Green - self-archive in institutional repository within 12 months

National Institutes of Health (NIH)
- Deposit in PMC within 12 months of publication

Chinese Academy of Sciences (CAS)
- Gold - permitted, no funds for APCs
- Green – Self-archive within 12 months

Bill & Melinda Gates Foundation
- Gold – permitted
- APC funding available

European Commission (Horizon 2020 program).
- Gold – permitted, post grant pilot with OpenAire
- Green – 6 months embargo (or 12 months embargo for humanities and social sciences)

Australian Research Council (ARC) and National Health and Medical Research Council – NHMRC
- Green – where possible, outputs must be made openly accessible within 12 months

National Science Foundation (NSF)
- Deposit within 12 months of publication

Elsevier and open access

Gold open access

- Fastest-growing open access publisher
- Published around 250 fully open access journals and over 1,900 hybrid journals
- Published over 34,000 open access articles in 2018, a 26% increase on 2017
- Choice of either a commercial (CC BY) or non-commercial (CC-BY-NC-ND) user license.
- Article publishing charges (APCs): ~$150 to ~$5000

Green open access

- Largest publisher enabler of green open access
- All 2500+ journals provide a green open access option
- Participate in CHORUS and support pilots with institutions and international funders
- Free API program to fuel repositories
- Share link service provides 50 days free access to recently published research
- Open archives in 118 journals, including Cell Press titles after 12 months

ELSEVIER

Total article growth by journal business model

In 2018 there were an estimated 2.1 million subscription and 0.5 million open access articles published worldwide.
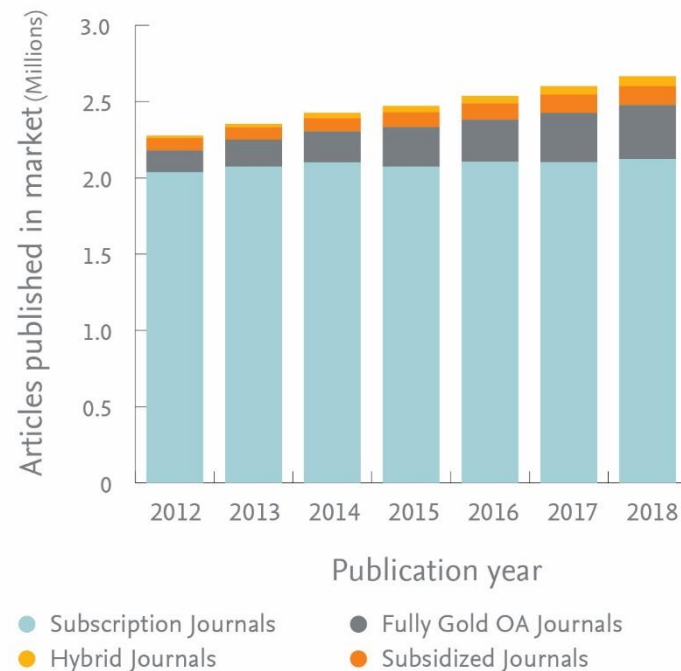
Subscription content
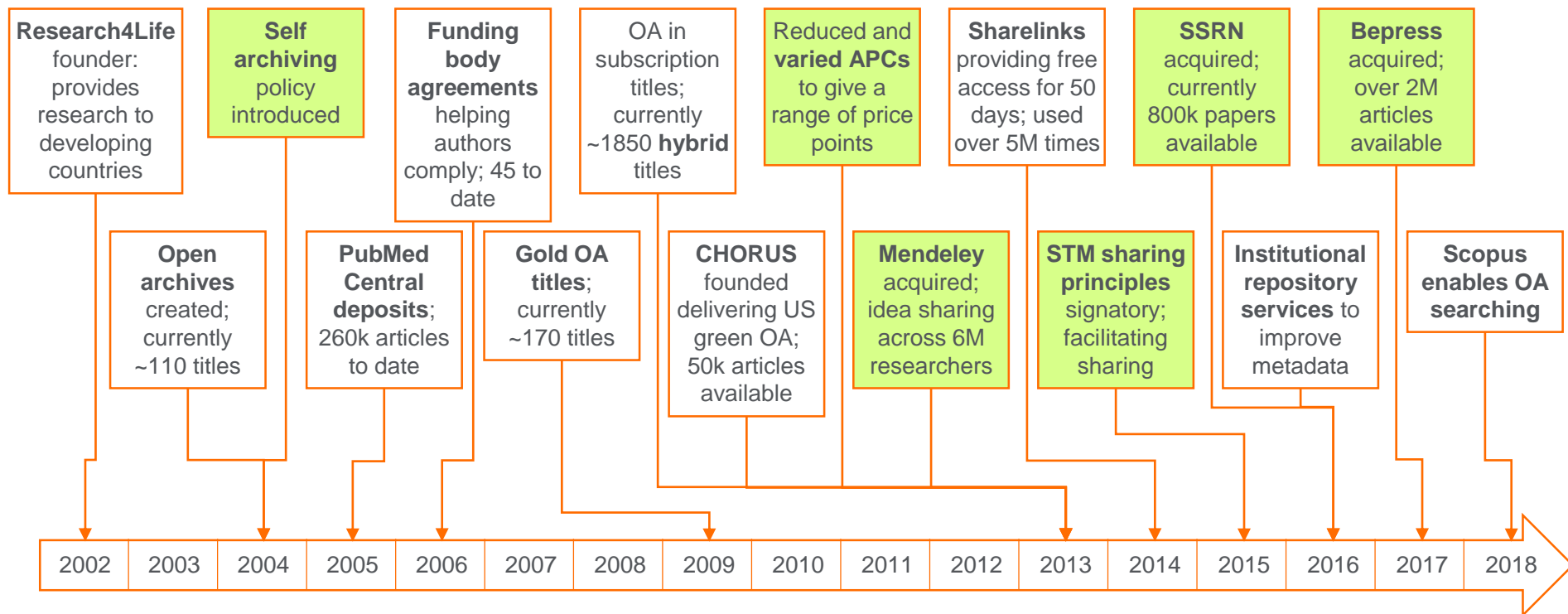- 80% share of total articles in 2018

Open access content
- APC-based fully gold and hybrid open access articles is 20% share of total content in 2018

Elsevier perspective
- In 2018, Elsevier published around 470,000 articles
- This includes over 34,000 open access articles, a 26% increase on 2017

Legend:
- Subscription Journals
- Hybrid Journals
- Fully Gold OA Journals
- Subsidized Journals

Our open access journey

Research4Life founder: provides research to developing countries

Self archiving policy introduced

Funding body agreements helping authors comply; 45 to date

OA in subscription titles; currently ~1850 **hybrid** titles

Reduced and **varied APCs** to give a range of price points

Sharelinks providing free access for 50 days; used over 5M times

SSRN acquired; currently 800k papers available

Bepress acquired; over 2M articles available

Open archives created; currently ~110 titles

PubMed Central deposits; 260k articles to date

Gold OA titles; currently ~170 titles

CHORUS founded delivering US green OA; 50k articles available

Mendeley acquired; idea sharing across 6M researchers

STM sharing principles signatory; facilitating sharing

Institutional repository services to improve metadata

Scopus enables OA searching

| 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |

Enabling Open Science

ELSEVIER

Share Links

- The majority of our journals offer Share Links – a customized link which authors receive for their newly-published article on ScienceDirect granting free access for 50 days to anyone.

- By March 2018, Share Links had generated over 10 million article views

- Over 1.3 million articles were shared via Share Links

- 68.7% of links come from social media in 2018

Dave Goulson
@DaveGoulson

Follow

New paper, "Research trends in ecosystem services provided by insects", free access to full article here:
authors.elsevier.com/c/1WedL57Eq03W...

7:58 PM - 1 Mar 2018

101 Retweets 140 Likes

ELSEVIER

Access initiatives by Elsevier

We provide a range of alternative access options to ensure everyone can access the information they need.

Some of our key programs include:
- **Research4Life:** free or low cost access to books and journals
- **Free media access** through our newsroom
- InterLibrary loan
- Access to Research
- DeepDyve
- **Emergency Access Initiative**
- **Postdoc access program**
- Elsevier Resource Centres…and more!

research4life

Newsroom

As part of Elsevier's Corporate Relations department, the Newsroom is the company's main point of contact for media.

Access to Research

More
collaborative

SSRN
Tomorrow's Research Today

- SSRN is devoted to the rapid worldwide dissemination of research and is composed of a number of specialized research networks.
- SSRN's eLibrary provides 761,906 research papers from 354,694 researchers across 30 disciplines

Tomorrow's Research Today

SSRN's global reach provides the tools to disseminate innovative ideas through our online repository, making librarians' jobs easier and keeping academics up-to-date.

SSRN provides the tools; your academic team enjoys the benefit.
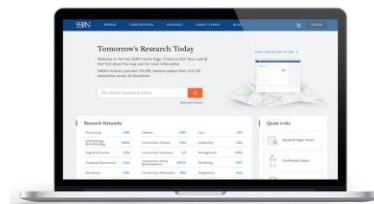
Always Growing.
Always Something New.

2.2M+ Users

800K+ Papers

326K+ Authors

107M+ Downloads

9.1M+ References

5.8M+ Citations

8.9M+ Footnotes
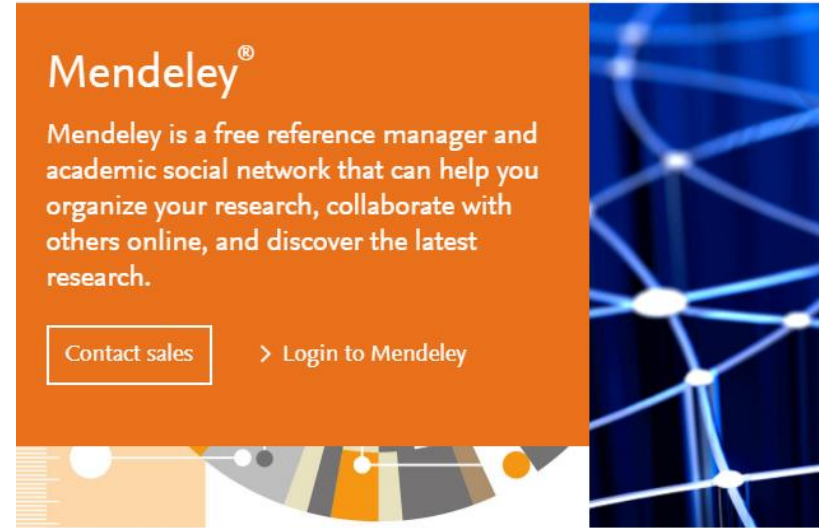
Enabling Open Science

www.elsevier.com/about/open-science

MENDELEY

- **70M** collaboration groups on Mendeley
- Signatory of STM principles on article sharing
- Public metadata, links, lists
- Group sharing functionality
- Mendeley Stats

Mendeley®

Mendeley is a free reference manager and academic social network that can help you organize your research, collaborate with others online, and discover the latest research.

Contact sales   › Login to Mendeley

Enabling Open Science

ELSEVIER

Atlas – research for a better world

- Articles chosen by external advisory board

- Shortlist from Elsevier's 1800+ journals

- Winning articles showcased in a lay summary by a scientific journalist and hosted on Atlas website

- Board members from NGOs across the world

- Author receives the Atlas award and have their article free to access on ScienceDirect

ELSEVIER

AudioSlides

Bringing research to a wide audience in an easily accessible, personal format.

✓ Brief, 5-minute presentations using slides & voice-over

✓ Overview in easily accessible format for researchers and the public at large

✓ AudioSlides are openly available

✓ Can be embedded on websites or posted to YouTube etc. - a great way to promote the article and increase usage!

More info: https://www.elsevier.com/audioslides

Tips & Tricks + template presentation available on Elsevier Publishing Campus!

Open peer review reports

Pilot in 5 journals to experiment with publishing peer review reports as publicly available research outputs with their own DOI.

Editors	Reviewers	Authors
• 70% of those surveyed believe that reports are more in depth and constructive i.e. improved and more useful to authors, as a result of being made open • Some concern it may make it harder to find reviewers.	• Like the ability to get recognition • Over 95% said publishing review reports didn't influence their recommendation nor would it influence them accepting further review invites for the journal.	• Generally positive about having open peer review reports next to their article • Little impact on their journal choice, indeed slightly more likely to choose a journal offering this.

Forward look

Extend to other interested journals and provide more data about the peer review process on ScienceDirect.

ELSEVIER

www.elsevier.com/about/open-science

Publishing data articles

- Offer researchers an easy channel to publish their research output, receive credit, and make research objects discoverable

- Dedicated sections in regular journals

- Specialized, fast and transparent peer-review process

- Co-submission service via regular journals for data articles

- Primarily Open Access, APCs of ~500 USD

Because no matter what field of research you are in, data, methods and software always matter

Research paper

Lab resources

Method articles

Protocol articles

Hardware articles

Software articles

Data articles

Video articles

PREPARE ARTICLE SUBMISSION

MAKE PLAN FOR NEXT EXPERIMENT

ANALYSE AND INTERPRET DATA

ESTABLISH METHODS

RESEARCH ELEMENTS

COLLECT DATA

WRITE SIMULATION CODE

CONDUCT EXPERIMENT

ELSEVIER
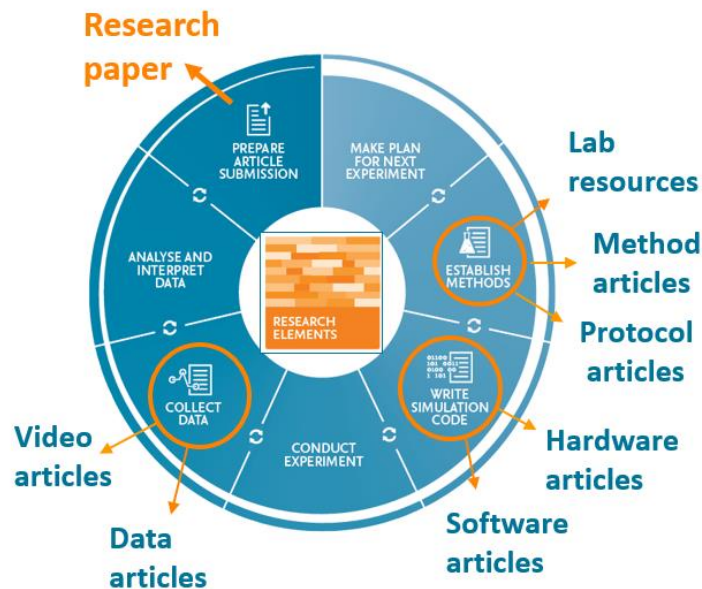
Storing research data

Submitting authors can store research data in [Mendeley Data](https://data.mendeley.com/) repository and link this to their article on ScienceDirect.

✓ Open access, free-to-use repository

✓ Indexes over 10 million datasets from domain-specific and cross-domain repositories

✓ Hosts all formats (raw, processed data, tables, code and software)

✓ 10GB free storage and CC0 license option

✓ Assigns data DOI to make it independently citable

✓ Partnership with DANS for long term storage and preservation

https://data.mendeley.com/

DataSearch link from Scopus

Research data enhance the value of an article and aid reproducibility. Scopus is recognizing the importance of research data as both output and sourcing for articles.

✓ Last March 2017, Scopus started a collaboration with [DLI Service](#) to find data related to any specific document.

✓ With this new release, Scopus is enhancing its involvement in research data by starting a new collaboration with [DataSearch](#).
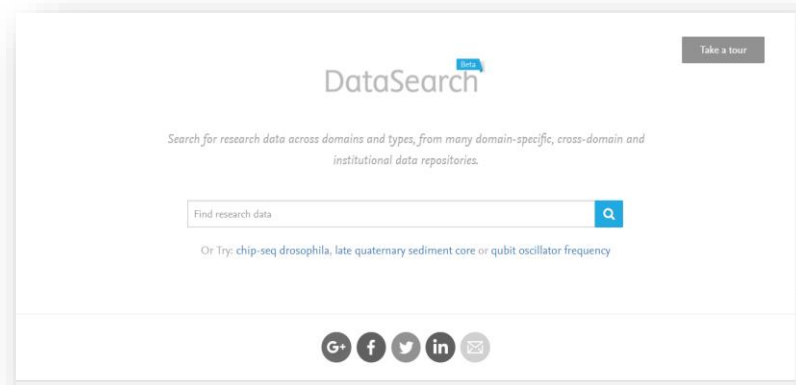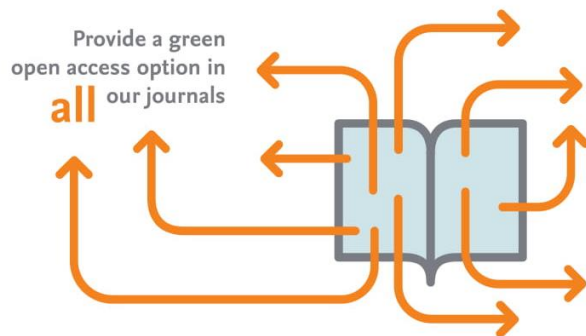
ELSEVIER

ELSEVIER

5 surprising facts about Elsevier and open access

Fact #1: Elsevier Publishes Open Access

In 2017 we published over **27,000** open access articles making us one of the leading open access publishers.
In fact we:

Publish **170** open access journals and over **1850** hybrid journals

Provide a green open access option in **all** our journals

Fact #2: Our APC prices are value for money

Our APC prices range from **c$150 – c$5000** US dollars which are at or below industry average. This represents value for money as we publish the best quality open access articles (based on field-weighted citation impact) for both open access and hybrid titles

Fact #5: We encourage authors to share their data

Elsevier is enabling researchers to store, share, discover and reuse data. We have:

55,000 users each month utilizing open data tools which include Mendeley Data and Hivebench

1.6 million links from published articles to datasets stored in **65** external data repositories

8.2 million datasets from over **30** repositories indexed and findable on Mendeley Data

Fact #3: We are making it easier to find and use OA content

Articles on ScienceDirect are tagged with "Open Access" and you can search, browse and set up alerts for open access

Scopus indexes **c4000 open access journals** from more than 5,000 publishers and we are also working on making it possible to search for open access on an article level within Scopus

Fact #4: Elsevier supports green open access

Enabling authors to self-archive in **all** of our journals. Our embargo periods are publicly available and searchable

Providing **4** ScienceDirect APIs to help institutional repository managers to search and populate their repositories with affiliated authors' metadata and abstracts

Implementing CHORUS for CHORUS partners and also make open archive freely available on ScienceDirect in **~110 journals**

Hvala!

Katarzyna Gaca-Zając, PhD Eng.

k.gaca-zajac@elsevier.com