

Crossref's Value in an era of Open Science

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*Presenting on behalf of: American Chemical Society, Elsevier,
IEEE, Springer Nature, Taylor and Francis and Wiley*



Key Points

1

Crossref is in a unique position to solve major problems in the research communications landscape.

2

Publishers need more cooperation, shared infrastructure, and standards than ever.

3

Crossref's revenue growth is driven by content deposition fees, but the ambitions are driven increasingly by providing infrastructure beyond the core linking service.

4

Crossref's future growth and sustainability depends on aligning its roadmap with its funding sources.

Context | Publishers are Publishing More. And the Product Landscape is Changing.

Crossref's Focus



Articles

Growing Output (from OA)
Pre-prints



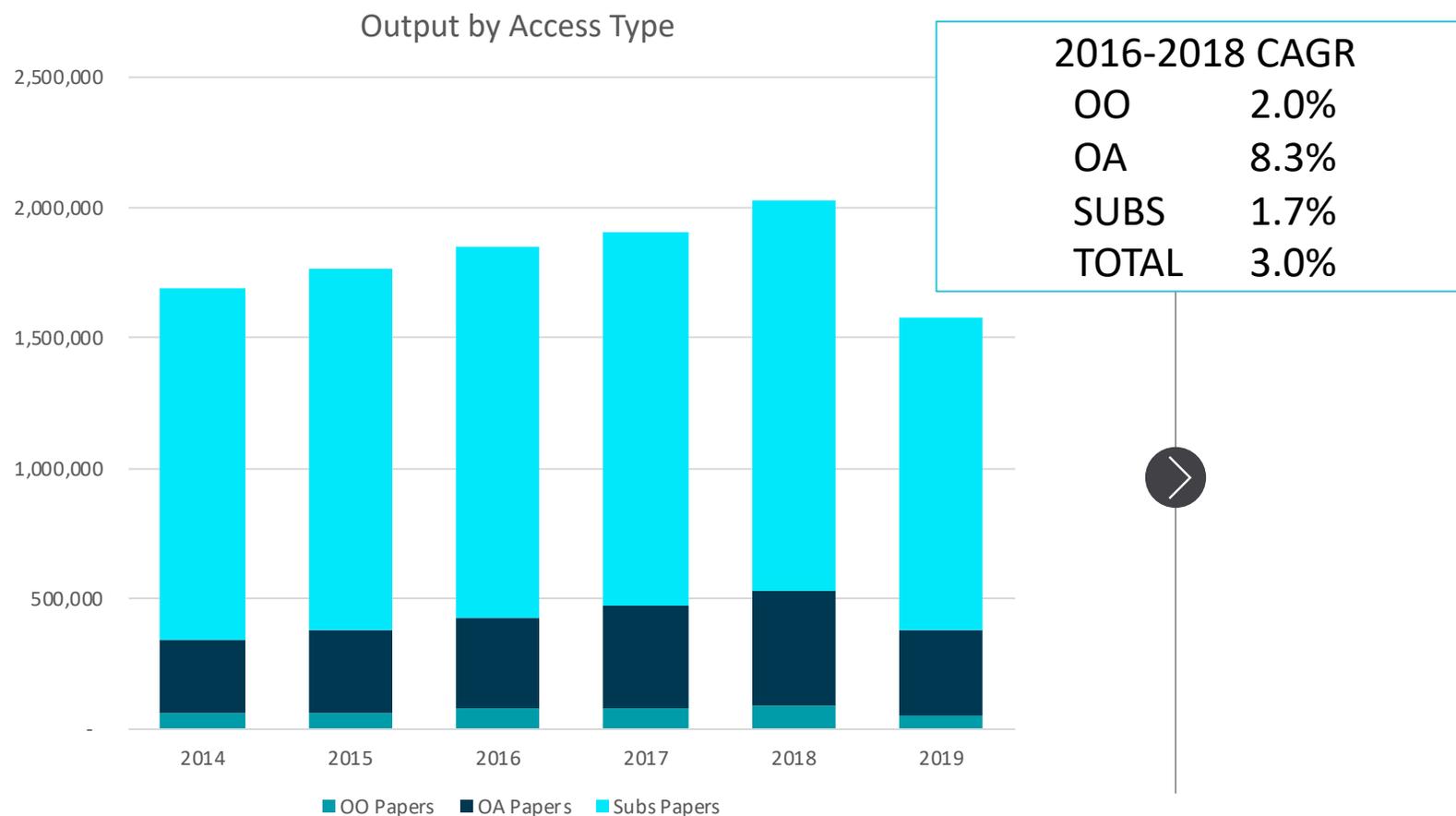
Artifacts

Peer Review Reports
Datasets
Methods & models
Figures
Post-publication Commentary

- ✓ Article output itself is growing
- ✓ Research content is diversifying
- ✓ Crossref was conceived to service the traditional product model (articles, books, chapters)

Publish More | Open Access introduces new economics and thus new strategies for publishers.

For large publishers, output growth is a key value driver



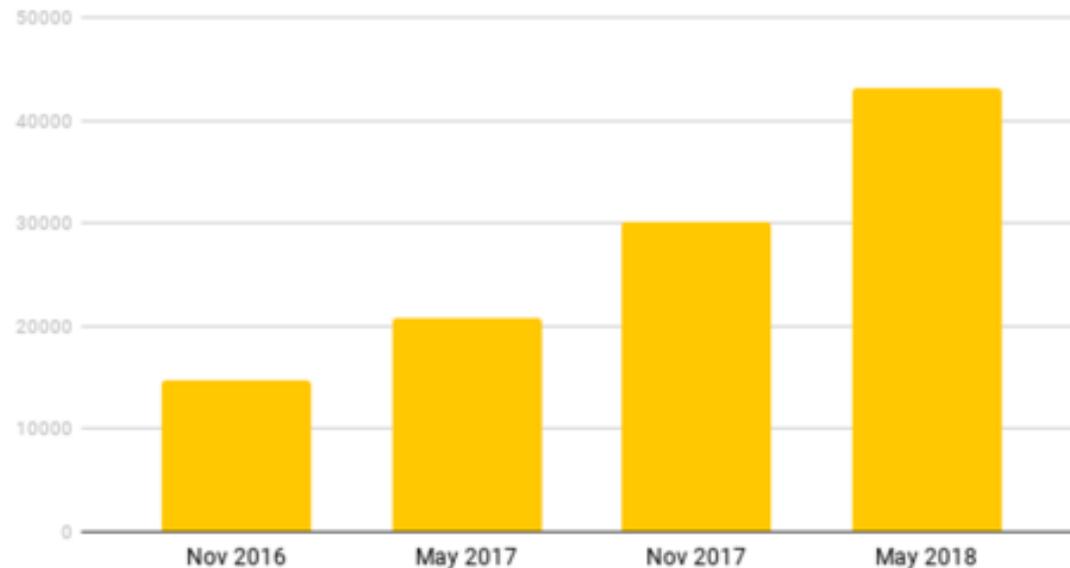
- ✓ New OA Titles
- ✓ Read & Publish Deals
- ✓ Cascade & Transfer
- ✓ Mega Journals
- ✓ China

Pre-prints | Becoming business as usual.

Pre-prints are growing 10x faster than journal articles...

And that was before publishers started really integrating pre-printing into their workflows

Preprints registered with Crossref



**2014-18 CAGR
23.9%**

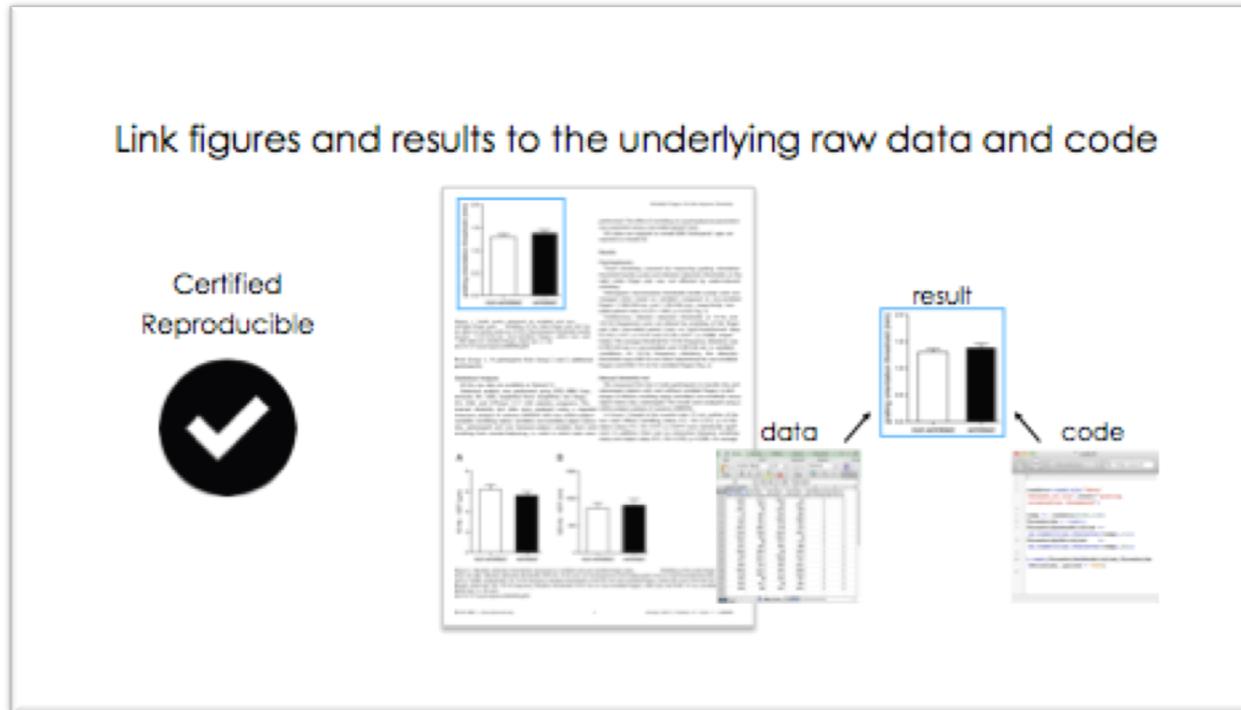
SSRN

Research Square

ATHOREA

- 35-45% of authors accept the pre-printing option when presented as part of a journal submission process.
- As publishers embrace integrated preprinting, the number of preprints will expand dramatically.

Artifacts| Publishers are facilitating the registration of more non-article content, which is good for science.



- **Linear articles to linked data**
“reproducible articles.”
- **Data presented as “supporting” to**
core information

The largest 30 publishers comprise approximately 50% of Crossref's revenue.

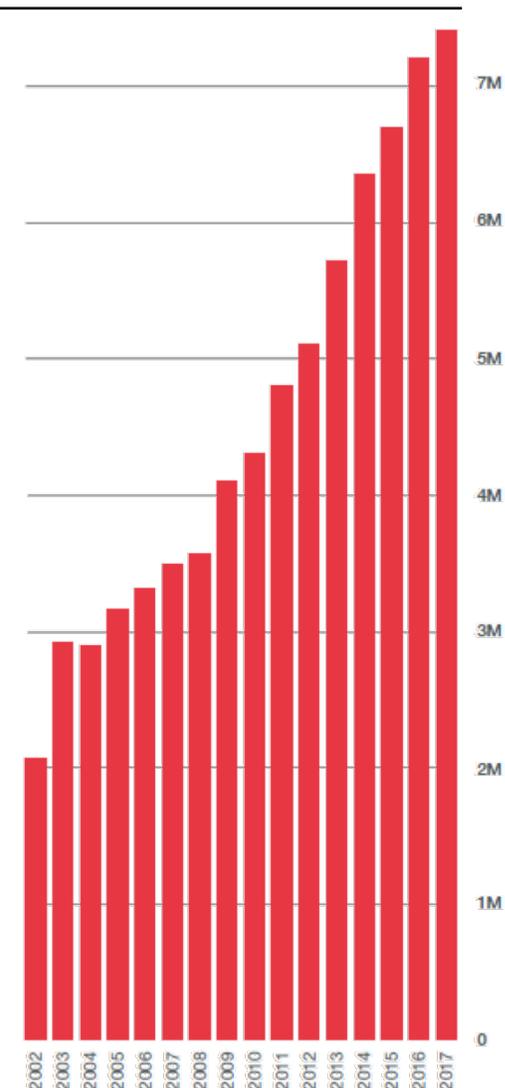
Content deposition fees drive Crossref's revenue growth.

FY 2018, \$k	Total
DOI deposit fees	5,121
Member and service fees	3,101
Interest income	33
Investment return	0
Total	8,279

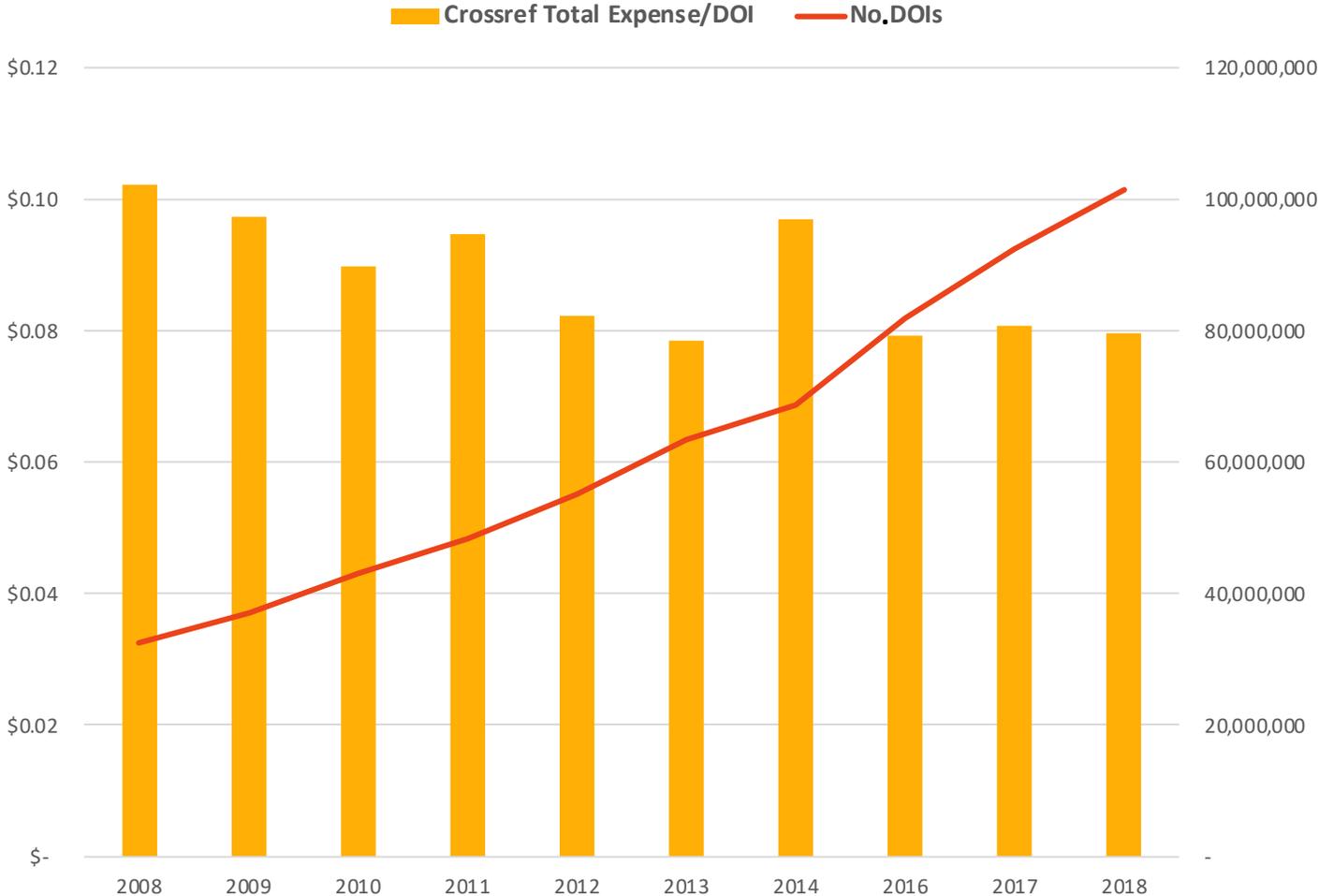
Total publishing revenue or expenses	Annual fee
<\$1 million USD	\$275
\$1 million - \$5 million	\$550
\$5 million - \$10 million	\$1,650
\$10 million - \$25 million	\$3,900
\$25 million - \$50 million	\$8,300
\$50 million - \$100 million	\$14,000
\$100 million - \$200 million	\$22,000
\$200 million - \$500 million	\$33,000
>\$500 million	\$50,000

Content type	Registration fee for current records	Registration fee for backfiles
Journal articles, book titles, conference proceedings papers, technical reports and working papers, theses and dissertations	\$1.00	\$0.15
Book Chapters	\$0.25	\$0.15
Preprints	\$0.25	\$0.15
Peer Reviews	\$0.25	\$0.25
Standards	\$0.15	\$0.15
Datasets	\$0.06	\$0.03

Revenue Growth



Implications | Crossref should be seeking to run the core linking service more efficiently year on year in order to support content growth



Despite steady reductions in technology costs and the advent of cloud computing, Crossref's total expense per DOI hosted has remained flat over the last 10 years

Source: Crossref Annual Reports, 2008-2019
<https://www.crossref.org/annual-report/>

Publishers have more need than ever to work together. And new funding demands for common infrastructure and standards. Yet the landscape to work together is increasingly fragmented

Examples of the common issues facing publishers....

- Author and affiliation disambiguation
- OA policy compliance
- Content security & copyright protection
- Common entitlements infrastructure
- Fraudulent submissions
- Data availability statement/data citation standard



- ✓ Crossref
- ✓ DataCite
- ✓ ORCID
- ✓ CHORUS
- ✓ Seamless Access (RA21)
- ✓ STM-STEAC
 - ✓ Scholix
- ✓ NISO

Is Crossref a Scholarly Infrastructure provider or Publisher services Organization?

Thank You
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