

Trends in open publishing

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About OASPA

- Members cover books, journals, supporting services, software and infrastructure
- Diversity of models and innovative approaches
- Mission: To encourage and enable open access as the predominant model of communication for scholarly outputs



Efficient open publishing of COVID-19 research

- Vast majority of content open access
- Collaboration by a group of publishers and related organisations for <u>rapid review of COVID-</u> <u>19 papers</u> – encouraged open data
- eLife journal including preprints by default



Peer review of preprints

- Outbreak Science PREreview
- Rapid reviews COVID-19 MIT Press
- Potential to improve transparency and equity in publishing
- Will need financial support in order to have stability in the long term



Growth of preprints

- Use of preprints was already growing, accelerated by the pandemic (<u>https://rxivist.org/stats</u>)
- Many authors used preprints for the first time
- Preprint servers <u>hosted almost 25% of COVID-19</u> <u>related science</u>
- COVID-19 preprints published in journals faster



Data

- Data sharing via COVID-19 papers was low less than 30% of articles provided a link to at least one dataset
- Adoption of open science practices would have avoided or mitigated against research duplication, dubious quality and retractions
- Open sharing of data in the CORD-19 database a <u>de</u> facto standard for text and data mining



Limitations

- Need for <u>clear signalling</u> of which preprints have not undergone peer review
- Required <u>across all formats</u> by which preprints are downloaded and shared
- Journals still play an important role, but slower peer review within the journal publishing environment, even for COVID-19 papers - median 5.5 months



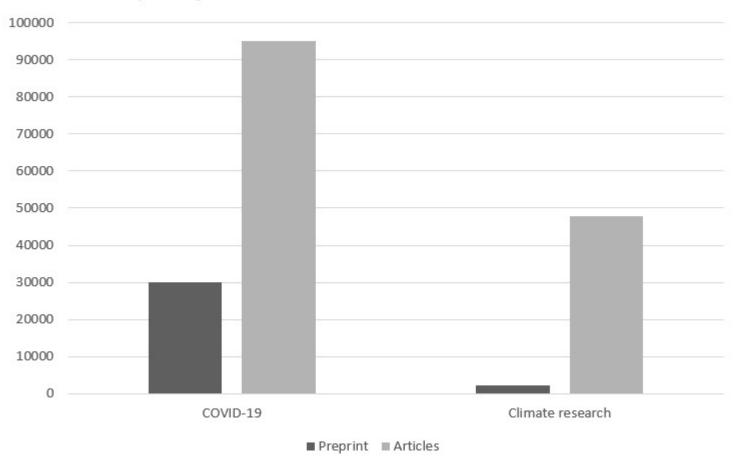
Open Climate Research

- Roughly 5% of climate journals are fully open access
- Few are encouraging open science practices
- Much of the OA content is in hybrid journals with higher than average APCs
- Meeting a need: PLOS Climate
 - regional focus
 - alternatives to APCs



The Big Picture

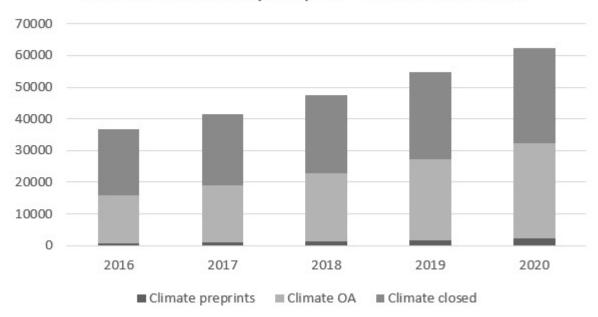
Preprint vs journal articles on COVID-19 and climate research in 2020



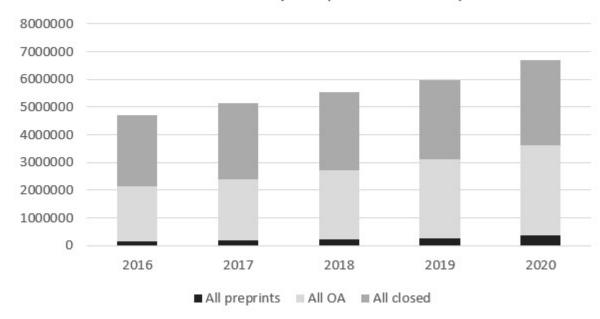


Tracking growth

Growth in scholarly outputs - Climate Research



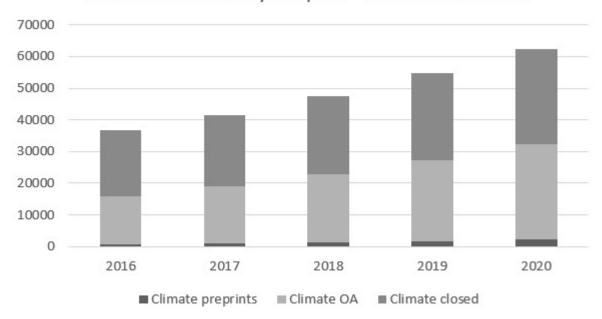
Growth in scholarly outputs - All disciplines



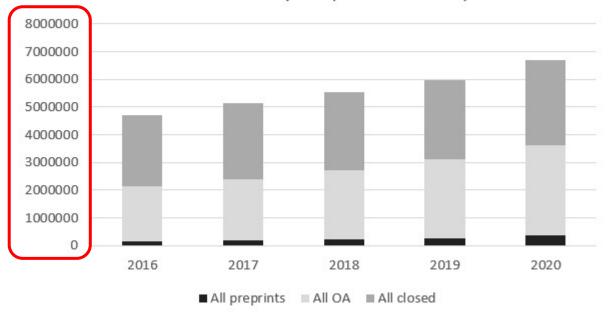


Tracking growth

Growth in scholarly outputs - Climate Research



Growth in scholarly outputs - All disciplines





Learning and adapting

"Worldwide, interest is intensifying in how research is funded, practiced and evaluated, and in how research cultures and systems can be made more efficient, open, inclusive and impactful. But research on research (RoR) - also called science of science, or meta-research - is often poorly joined-up."

- RORI researchonresearch.org







Conclusions

- Continued need to push for open access. Outputs need to be discoverable with good, open metadata.
- More can be done to increase data availability
- Preprints can play an important role and journal-organised peer review is still ensuring trust, but can be applied in new ways
- Global research culture must support open science practices
- Recent trends present an opportunity to study publishing itself, and to learn from experiences to create a more transparent and equitable global system



Thank you

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