



Opening the record of science: making scholarly publishing work for science in the digital era



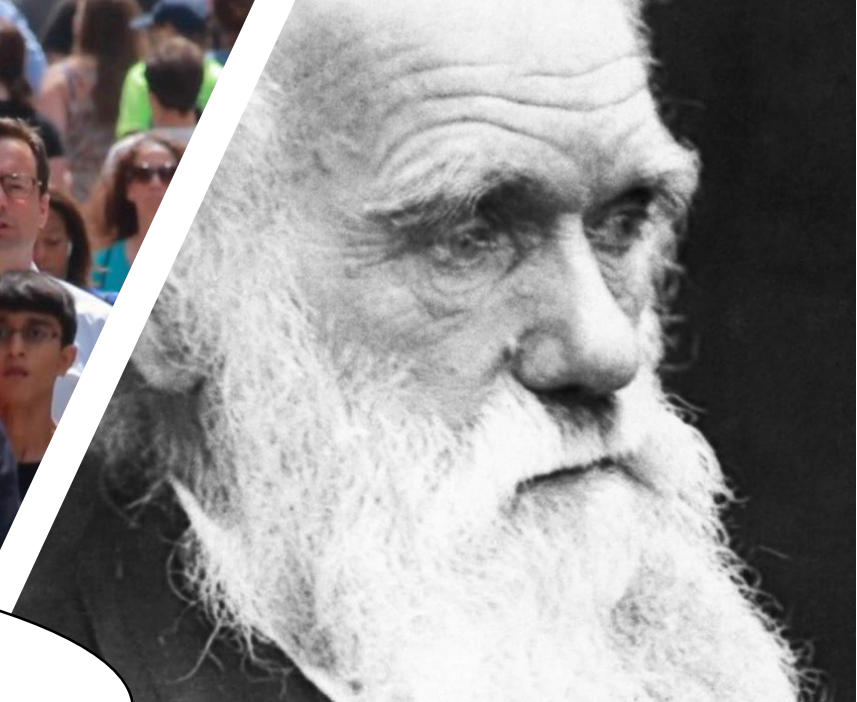
Assertion: globally open communication must be the bedrock of Open Science for the modern era

Global Forum of Funders

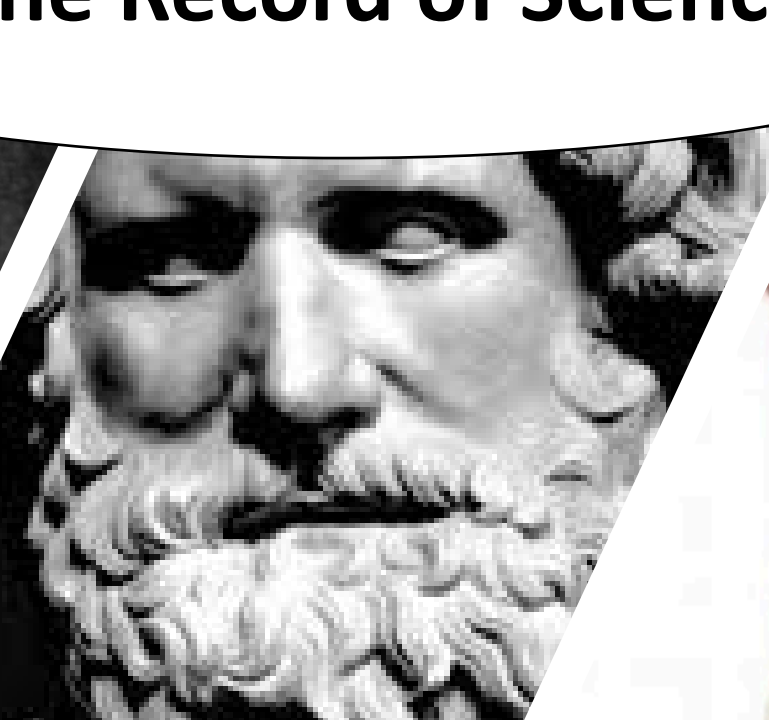
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The Record of Science



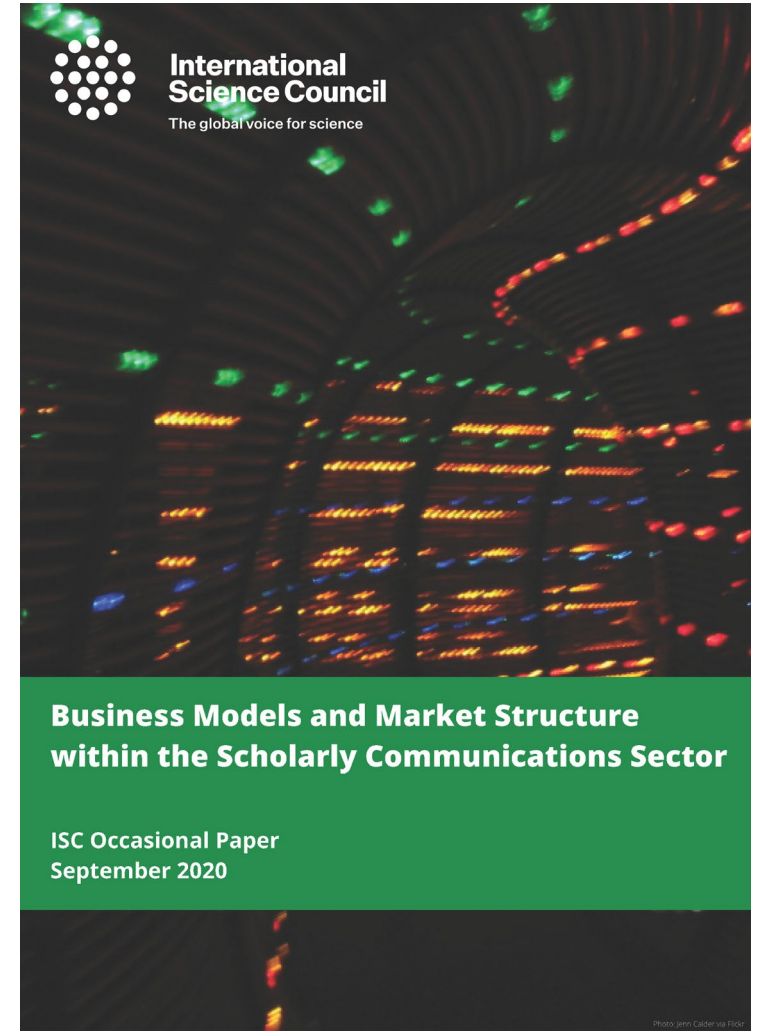


Also: a complete version in Chinese
+ summaries in 6 other languages

PHASE 1

Questions addressed by the Reports

1. Articulate essential principles that should frame the processes of scientific publishing.
2. Describe how current publishing systems operate.
3. Analyse the extent that they serve the needs of science and deliver on the principles.
4. If necessary identify reforms and restructuring needed to better serve the needs of science.





Proposed Principles

- I. Affordable universal open access to the record of science,
- II. Open licensing of published material
- III. Rigorous and ongoing peer review
- IV. Data Publication
- V. Long-term maintenance of the record of science
- VI. Respect for varying publications traditions
- VII. Flexible, adaptive systems



Problems where funders could exercise strong leverage - 1

I. Affordable universal open access

- Ability to pay high prices a prime determinant of discriminatory access
- High APCs are only open in a narrow sense
- Fractures the international science community
- Highly biased business model, in which researchers & institutions are complicit
- Inappropriate metrics for academics that also drive predatory publishing
- Moral hazard for academic authors

II. Open licensing

- Copyright surrender privatises a publicly-funded resource and denies access
- Much of the record of science not readily accessible to modern techniques of text and data mining



Problems where funders could exercise strong leverage - 2

IV. Data publication (data a first class research output – should be published as such)

- Data supporting a truth claim frequently not available for scrutiny
- Current incentives work against open data
- Submitted data often lacks the (FAIR) basis for useability or interoperability
- All papers on line and all data on line with mutual interoperation is achievable
- Data about science, its management and strategy in commercial hands and the core of an emerging business model of science/knowledge platforms



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Emergence of multi-sided science/knowledge platforms

