The Path to POSI

Panel 1 | Open Infrastructure and Collaboration

OASPA 2021 Conference
We envision a rich and reusable open network of relationships connecting research organizations, people, things, and actions; a scholarly record that the global community can build on forever, for the benefit of society.
How to reach that goal?

- **Open and accessible metadata** - human & machine readable
- **Persistent identifiers** - for all activities, inputs/outputs, contributors, human and machine interfaces
- **Community awareness and collaboration** - I4OC + I4OA + Metadata 20/20 + supporters.guide + many other initiatives
- **Commitment to principles of open scholarly infrastructure**
The Principles of Open Scholarly Infrastructure

Trust must run strongly across each of the following areas: running the infrastructure (governance), funding it (sustainability), and preserving community ownership of it (insurance). In this spirit, we have drafted a set of design principles we think could support the creation of successful shared infrastructures.

http://dx.doi.org/10.6084/m9.figshare.1314859

Supporting Open Research
Openscholarlyinfrastructure.org
Why POSI?

**Supporting Open Research**: assess and build trust in open scholarly infrastructure and services that underpin Open Research

**Based on real experiences**: Inspired by forming ORCID back in the day, by running Crossref, & by setting up ROR.

**Well-received by the community**: POSI in turn has inspired many to evaluate, reference, build upon, or extend POSI.

**A need for broader governance**: Existing open infrastructures, metadata, and services need to be trusted and accessible by all parties, all levels of experience, and all geographies.

**Identify others to collaborate with**: Enables like-minded initiatives to form trusted bonds and share operations, leading to more integrated services for all.

**Practical and measurable**: Promises, yes. But also a set of practices that orgs can stick to, report on, and be regularly held accountable to.

**Balanced**: Not a checklist to cherry pick from; each of the 16 balance various risks.
16 Principles - and best practices

**Governance**
- Coverage across the research enterprise
- Stakeholder Governed
- Non-discriminatory membership
- Transparent operations
- Cannot lobby
- Living will
- Formal incentives to fulfil mission & wind-down

**Sustainability**
- Time-limited funds are used only for time-limited activities
- Goal to generate surplus
- Goal to create contingency fund to support operations for 12 months
- Mission-consistent revenue generation
- Revenue based on services, not data

**Insurance**
- Open source
- Open data (within constraints of privacy laws)
- Available data (within constraints of privacy laws)
- Patent non-assertion
Get involved with POSI

- A reference point and a community resource for any organisation or initiative that:
  - Provides open infrastructure for research and scholarly communications
  - Is at any stage of their journey to meet POSI
  - Wants to be held publicly accountable, alongside others
- Self-assessments from others encouraged - or provide comments and feedback if you don’t agree with them - we are open to discussion
- Assess your partners and service providers against POSI - hold them (and us) to account

Openscholarlyinfrastructure.org
Crossref’s Board votes to adopt the Principles of Open Scholarly Infrastructure

TL;DR

On November 11th 2020, the Crossref Board voted to adopt the “Principles of Open Scholarly Infrastructure” (POSI). POSI is a list of sixteen commitments that will now guide the board, staff, and Crossref’s development as an organisation into the future. It is an important public statement to make in Crossref’s twentieth anniversary year. Crossref has followed principles since its founding, and meets most of the POSI, but publicly committing to a codified and measurable set of principles is a big step. If 2019 was a reflective turning point, and mid-2020 was about Crossref committing to open scholarly infrastructure and collaboration, this is now announcing a very deliberate path. And we’re just a little bit giddy about it.
Crossref

- PID provider: Open, foundational scholarly infrastructure: openscholarlyinfrastructure.org
- Open metadata and services make research outputs easy to find, cite, link, assess, and reuse.
- Crossref DOIs are citation identifiers: grants, preprints, articles, chapters, proceedings, standards, reports, protocols, dissertations, reviews, comments (conferences, video, blogs soon).
- Research nexus - capturing the scholarly record
- Collaboration
- Open metadata and APIs to retrieve metadata from >126 million records.
Expansion of content, metadata and services

- Crossref has expanded content types: Books, Conference proceedings, Dissertations, Grants, Journals, Peer reviews, Preprints, Reports, Reviews, Working Papers, Standards.
- Crossref has expanded its metadata with links and relationships: corrections & retractions, licenses, funding information, ORCID IDs, DataCite DOIs, preprint to VoR connections and soon - ROR IDs for affiliations.
- Services: updated Similarity Check; REST API; Metadata Plus, Event Data.
Changing landscape: Crossref as an enabling infrastructure

Crossref is no longer just for the purpose of making bilateral relationships between publishers more efficient; our infrastructure is now helping efficiently manage n-dimensional multilateral relationships in a network of other identifiers, metadata and relationships.
3 large tiers - 56% of revenue in 2011, 40% of revenue in 2020
3 middle tiers - 20% of revenue in 2011, 16% of revenue in 2020
3 small tiers - 25% of revenue in 2011, 44% of revenue in 2020

Smaller members now pay more collectively than the largest
Crossref board - now and then

2021
American Institute of Physics Publishing
*African Journals Online (AJOL)*
American Psychological Association
Association for Computing Machinery (ACM)
Beilstein-Institut
*California Digital Library (CDL)*
Clarivate
eLIFE
Elsevier
*Korean Council of Science Editors*
Open Edition
Oxford University Press
SciELO
Springer Nature
Informa/Taylor & Francis
Wiley

2000
*Academic Press (Elsevier)*
American Association for the Advancement of Science (AAAS)
American Institute of Physics
American Psychological Association
Association for Computing Machinery (ACM)
*Blackwell Science (Wiley)*
Elsevier Science
Institute of Electrical and Electronics Engineers (IEEE)
*Kluwer Academic Publishers (Springer Nature)*
*Nature Publishing Group (Springer Nature)*
Oxford University Press
*Springer Verlag (Springer Nature)*
Wiley
Board motions July 2020

1. That Crossref should proactively lead an effort to explore, with other infrastructure organizations and initiatives, how we can improve the scholarly research ecosystem.

   Crossref is committed to the collaborative development of open scholarly infrastructure for the benefit of our members and the wider research community.

2. That the exploration referenced in the foregoing resolution should consider a range of options looking at operational, governance, technical, and product and service issues and how the organizations could take advantage of synergies, efficiencies, and opportunities for the benefit of the wider research community by working more closely together.

3. Formed a Strategy Committee to take this forward.
Welcome to our new strategic narrative—published June 2021—which sets out our agenda through 2025. It encompasses all our plans, from governance and sustainability, our work with different parts of the scholarly community, through to new and existing product development as well as strategic initiatives.

We have six overarching goals, two more than the previous set, now archived; ‘bolster the team’ and ‘live up to POSI’ are the 2021 additions. Historic strategy information can be found on our blog.

Read on to learn more about where the Crossref community is heading and let us have your thoughts by starting or joining a discussion in the strategy section of our community forum.

- ☑️ Bolster the team
- 🚀 Live up to POSI
- 🌍 Engage communities
- ⭐ Improve our metadata
- 💚 Collaborate & partner
- ★ Simplify & enrich services
Live up to POSI
Living up to POSI (in practice)

- Review of governance
  - Stakeholder review
  - Broaden board to include funders
- Sustainability
  - Working towards a 12 month contingency fund
  - Publishing more about our operations
- Open and available data
  - Open APIs & Search + releasing public metadata files
- Open source support, code, issues, bug-fixing
- Partnership plan
  - Discussing closer alliances with several other open infrastructure organisations
Discussing closer alliances

- More integrated and interoperable infrastructure to make things easier for researchers and organizations involved in scholarly research and communications
- Work with infrastructure organizations with aligned missions
- Community governance - funders, institutions, publishers, researchers
- Self-sustaining business models
- Neutrality and independence
- Shared open-source solutions and services
- Work in the most efficient way possible to reduce duplicative activities and processes
Thank you

- Twitter: @CrossrefOrg and @Crossrefsupport
- What are we thinking about: crossref.org/blog
- Conversations: community.crossref.org/
- Get in touch: feedback@crossref.org
- Newsletter: Click “Get email updates” in the footer of our website