





**Crossref**

Jennifer Lin, PhD

@jenniferlin15

[orcid.org/0000-0002-9680-2328](https://orcid.org/0000-0002-9680-2328)

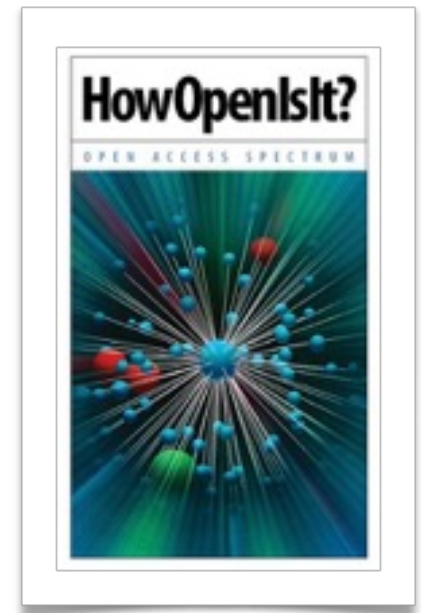
# The Many Lives of an Open Access Research Object

---

OASPA, 21-22 Sep 2016



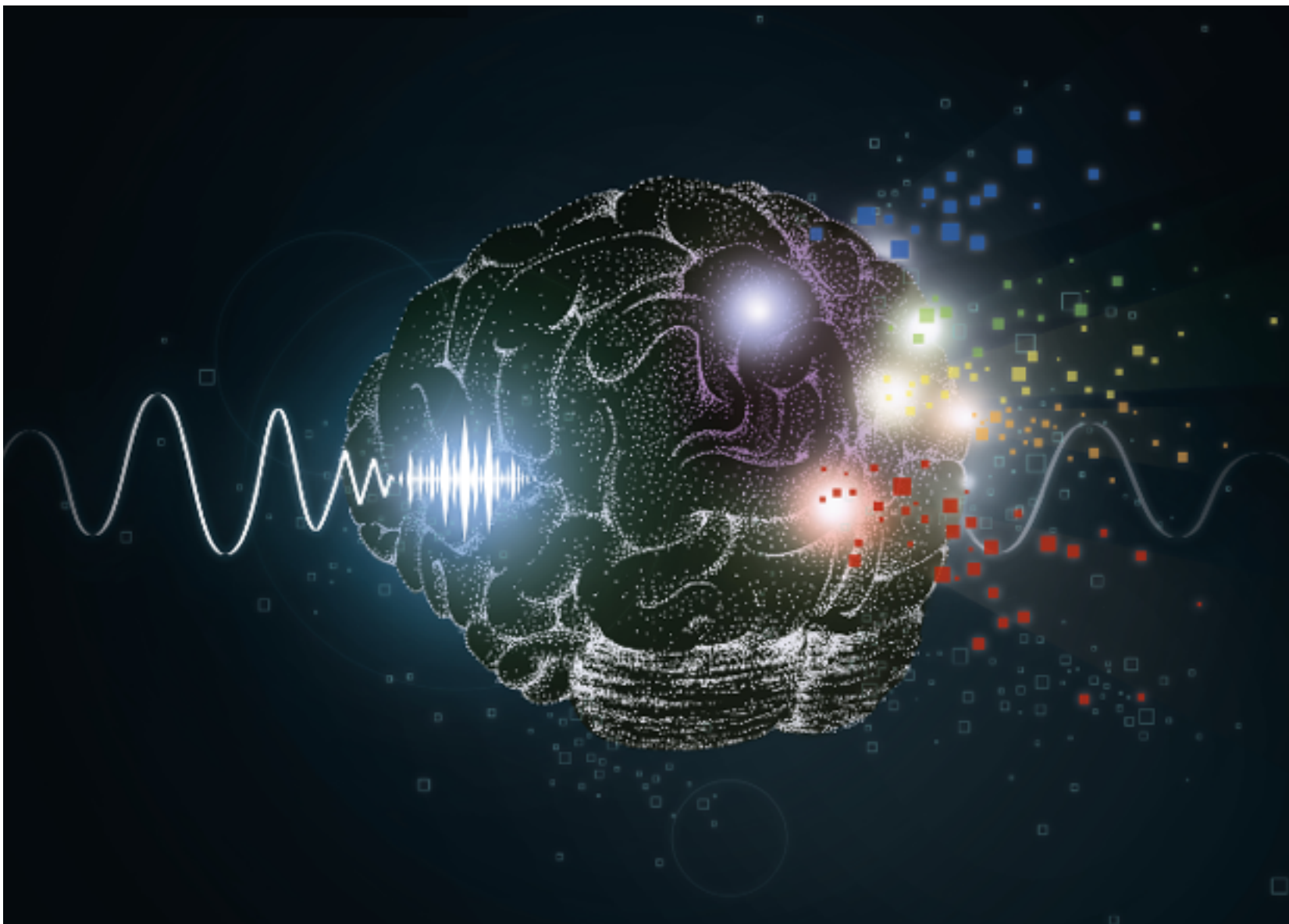
how  is it?



**open access**

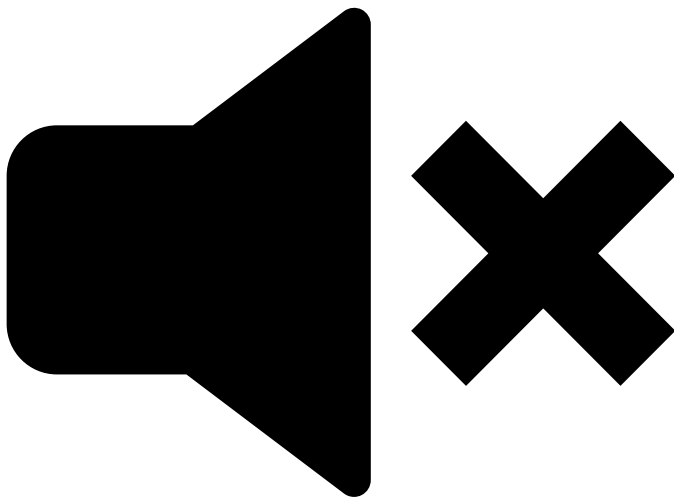
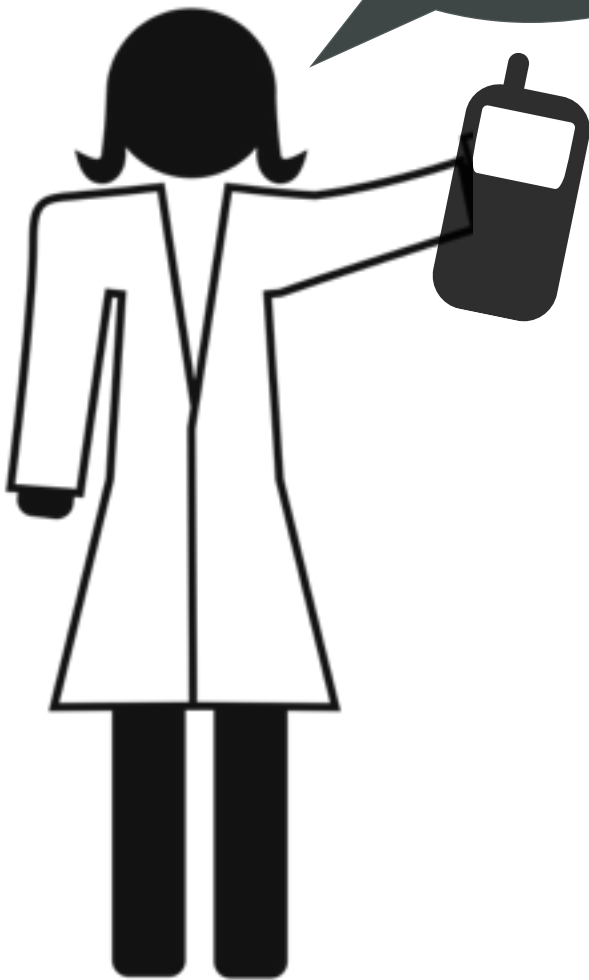
**= open use**





*Image Credit: Thomas Raatz*  
<http://dx.doi.org/10.1371/image.pbio.v14.i08.g001>

Can you read  
me now?



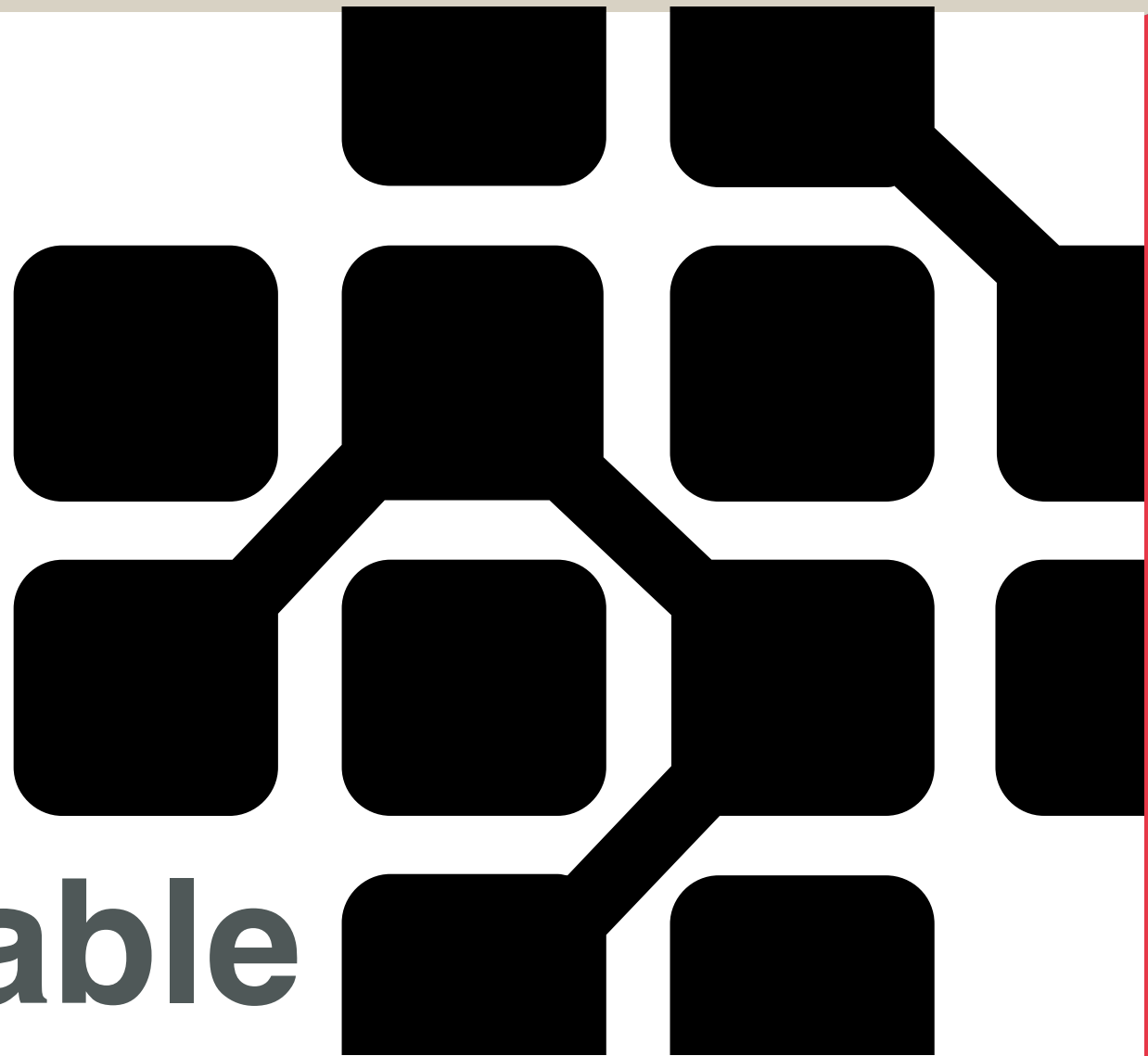


“Access full text, **metadata, citations** & data, including supplementary data, provided in community machine-readable standard formats through a community standard API or protocol”

Access	Reader Rights	Reuse Rights	Copyrights	Author Posting Rights	Automatic Posting	Machine Readability	Access
OPEN ACCESS	Free readership rights to all articles immediately upon publication	Generous reuse & remixing rights (e.g., CC BY license)	Author holds copyright with no restrictions	Author may post any version to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) immediately upon publication	Article full text, metadata, citations, & data, including supplementary data, provided in community machine-readable standard formats through a community standard API or protocol	OPEN ACCESS
	Free readership rights to all articles after an embargo of no more than 6 months	Reuse, remixing, & further building upon the work subject to certain restrictions & conditions (e.g., CC BY-NC & CC BY-SA licenses)	Author holds copyright, with some restrictions on author reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 6 months	Article full text, metadata, citations, & data, including supplementary data, may be crawled or accessed through a community standard API or protocol	
	Free readership rights to all articles after an embargo greater than 6 months	Reuse (no remixing or further building upon the work) subject to certain restrictions and conditions (e.g., CC BY-ND license)	Publisher holds copyright, with some allowances for author and reader reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to certain repositories or websites	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 12 months	Article full text, metadata, & citations may be crawled or accessed without special permission or registration	
	Free and immediate readership rights to some, but not all, articles (including "hybrid" models)	—————	Publisher holds copyright, with some allowances for author reuse of published version	Author may post submitted version/draft of final work ("preprint") to certain repositories or websites	—————	Article full text, metadata, & citations may be crawled or accessed with permission	
CLOSED ACCESS	Subscription, membership, pay-per-view, or other fees required to read all articles	No reuse rights beyond fair use/ limitations & exceptions to copyright (all rights reserved copyright) to read	Publisher holds copyright, with no author reuse of published version beyond fair use	Author may not deposit any versions to repositories or websites	No automatic posting in third-party repositories	Article full text & metadata not available in machine-readable format	CLOSED ACCESS

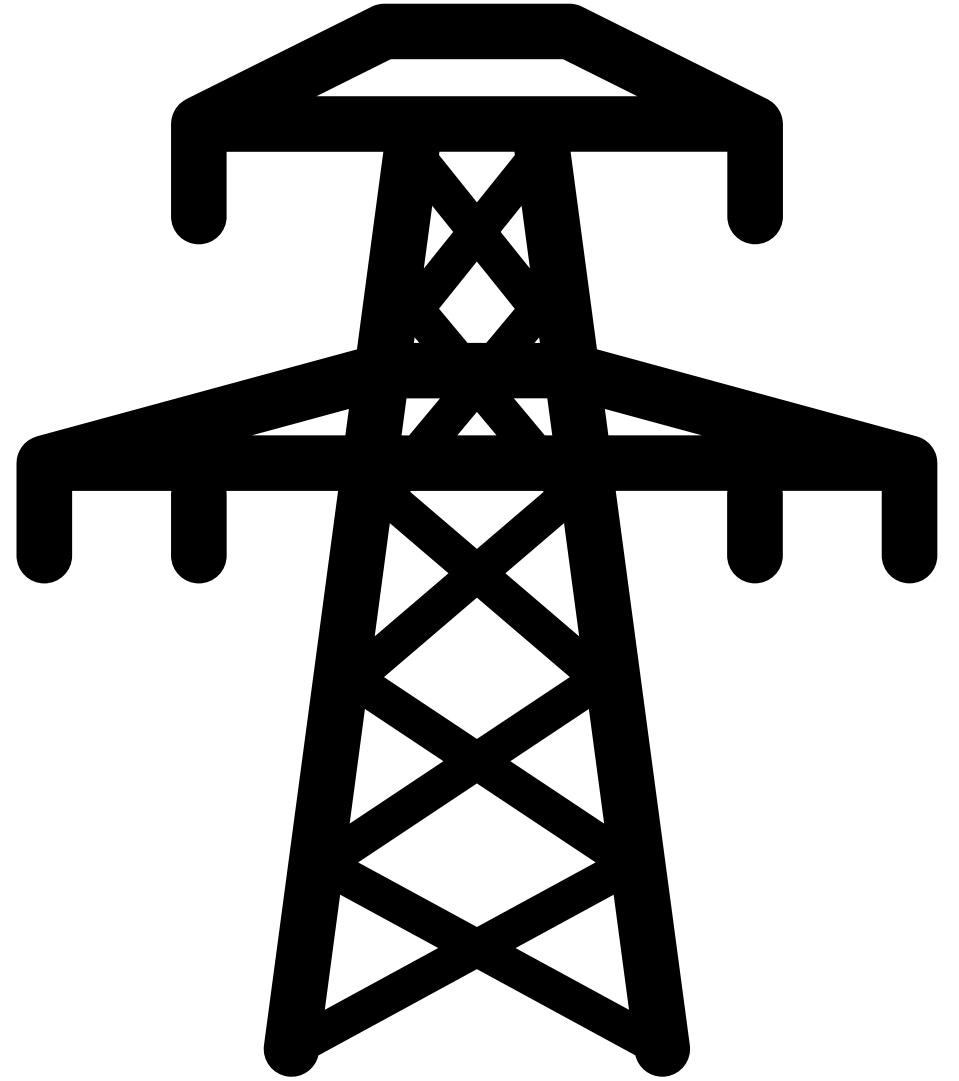


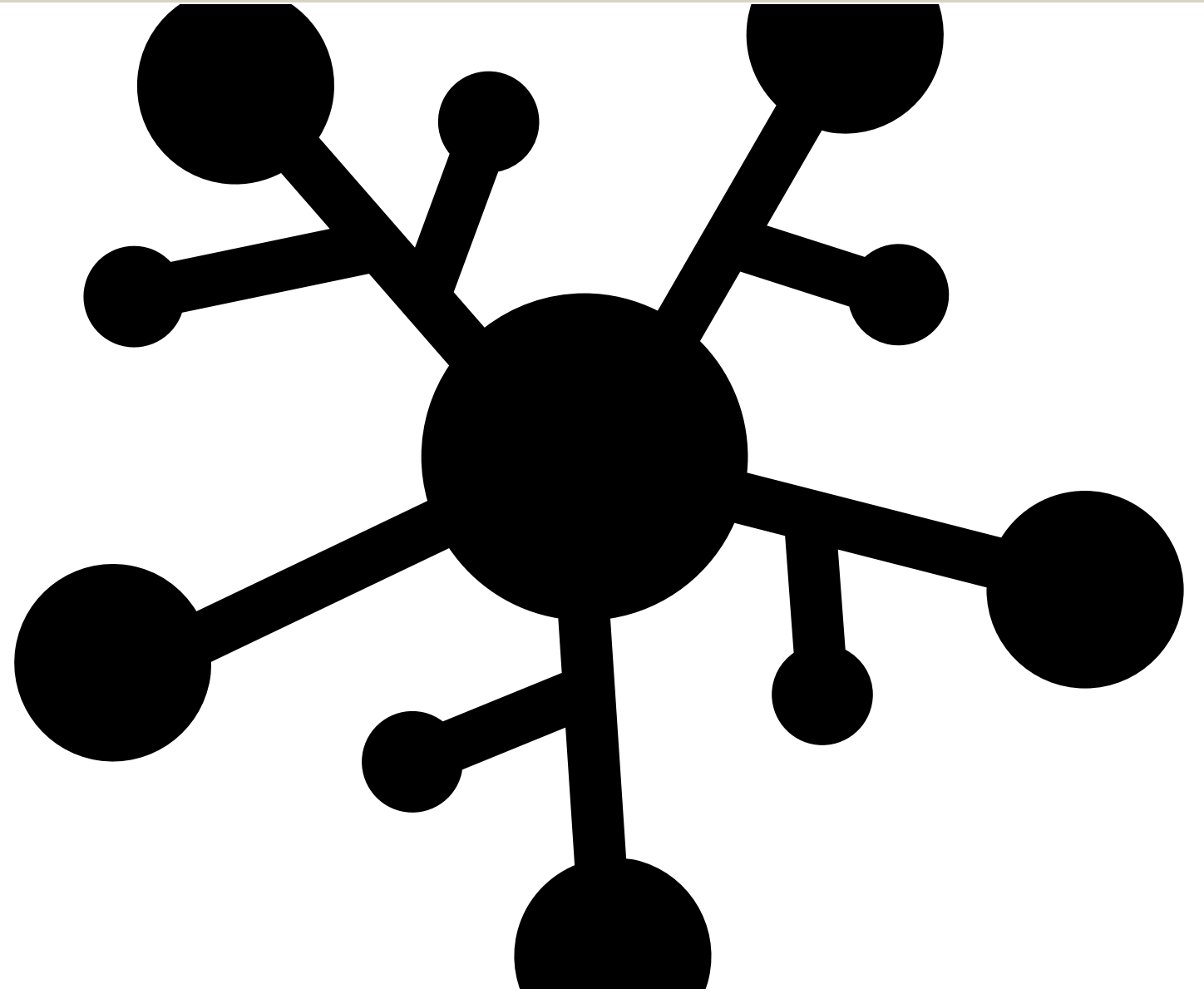
**Metadata enable  
connections**



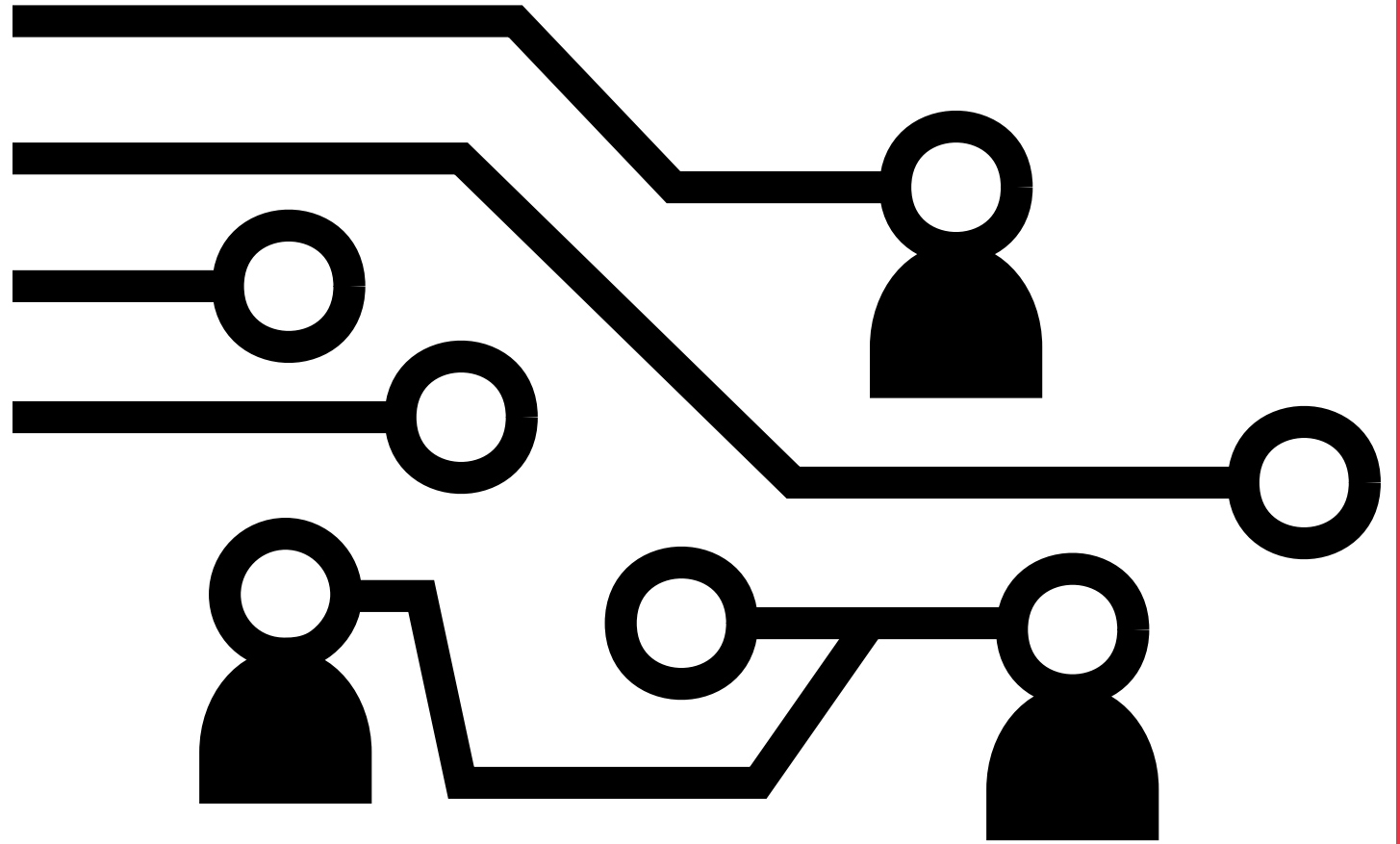


**infrastructure**





**Crossref  
links you up**



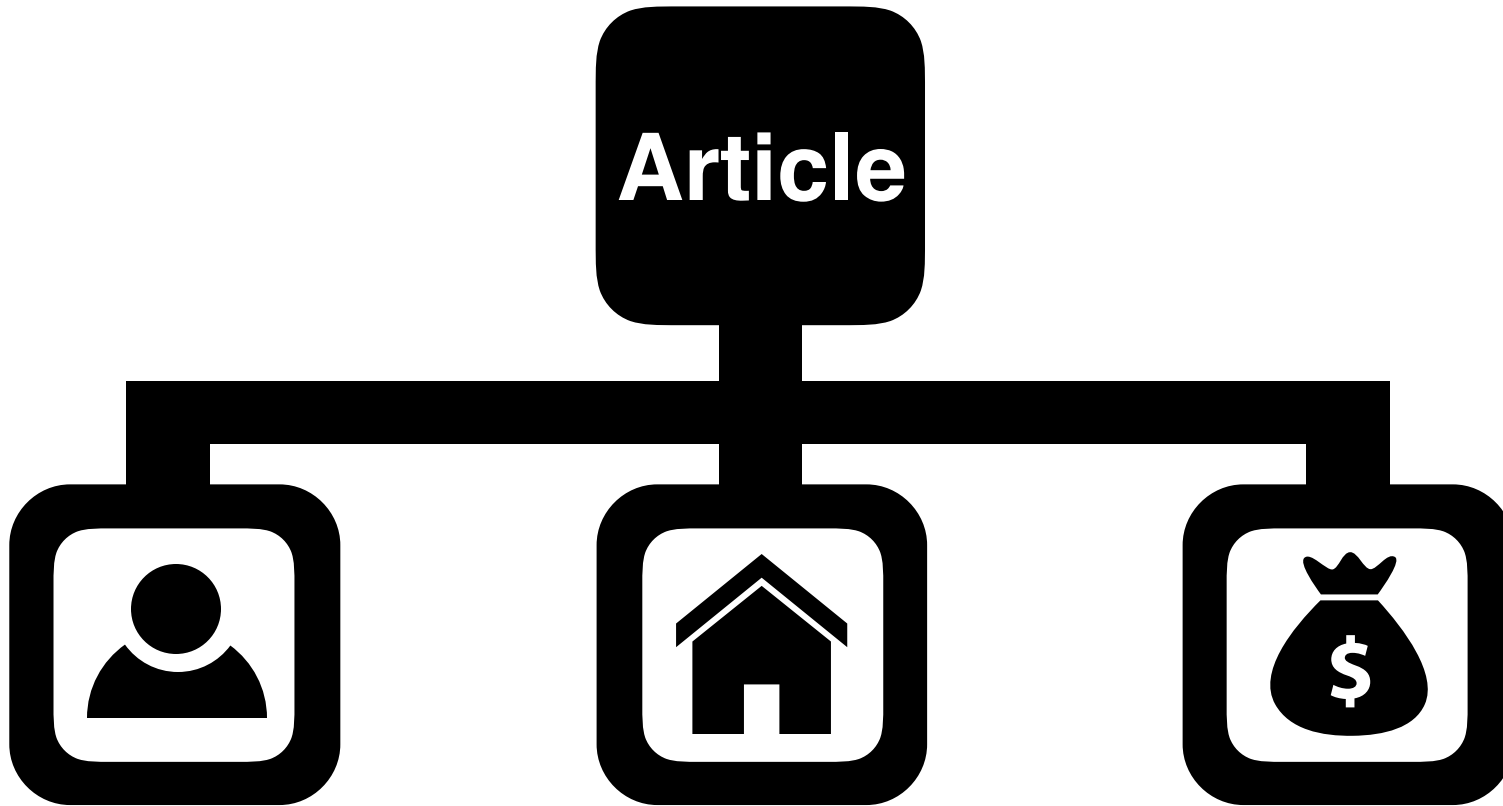
**making connections across  
the scholarly web**

Literature



Associated  
research entities

**Article**



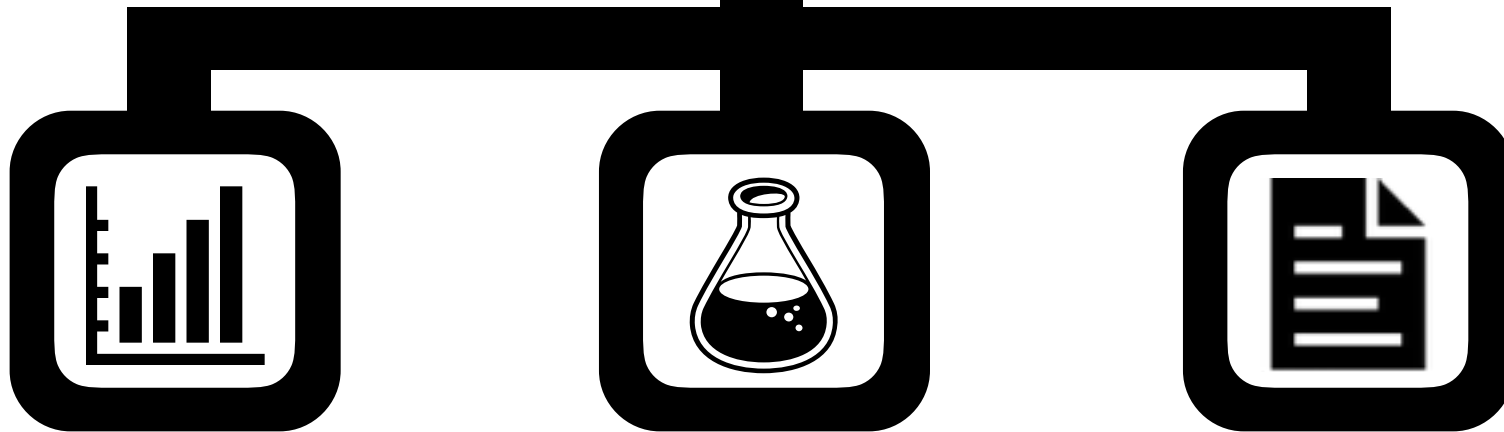
- co-authors
- reviewers
- funders
- collaborators
- editors
- affiliations

Literature



Associated  
research outputs

**Article**



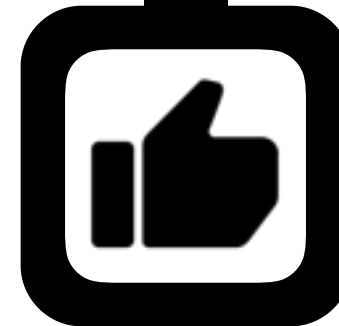
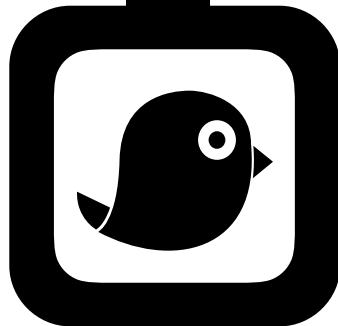
- datasets
- protocols
- preprints
- peer reviews
- software
- materials
- conf papers
- translations...

Literature



Activities  
surrounding it

**Article**

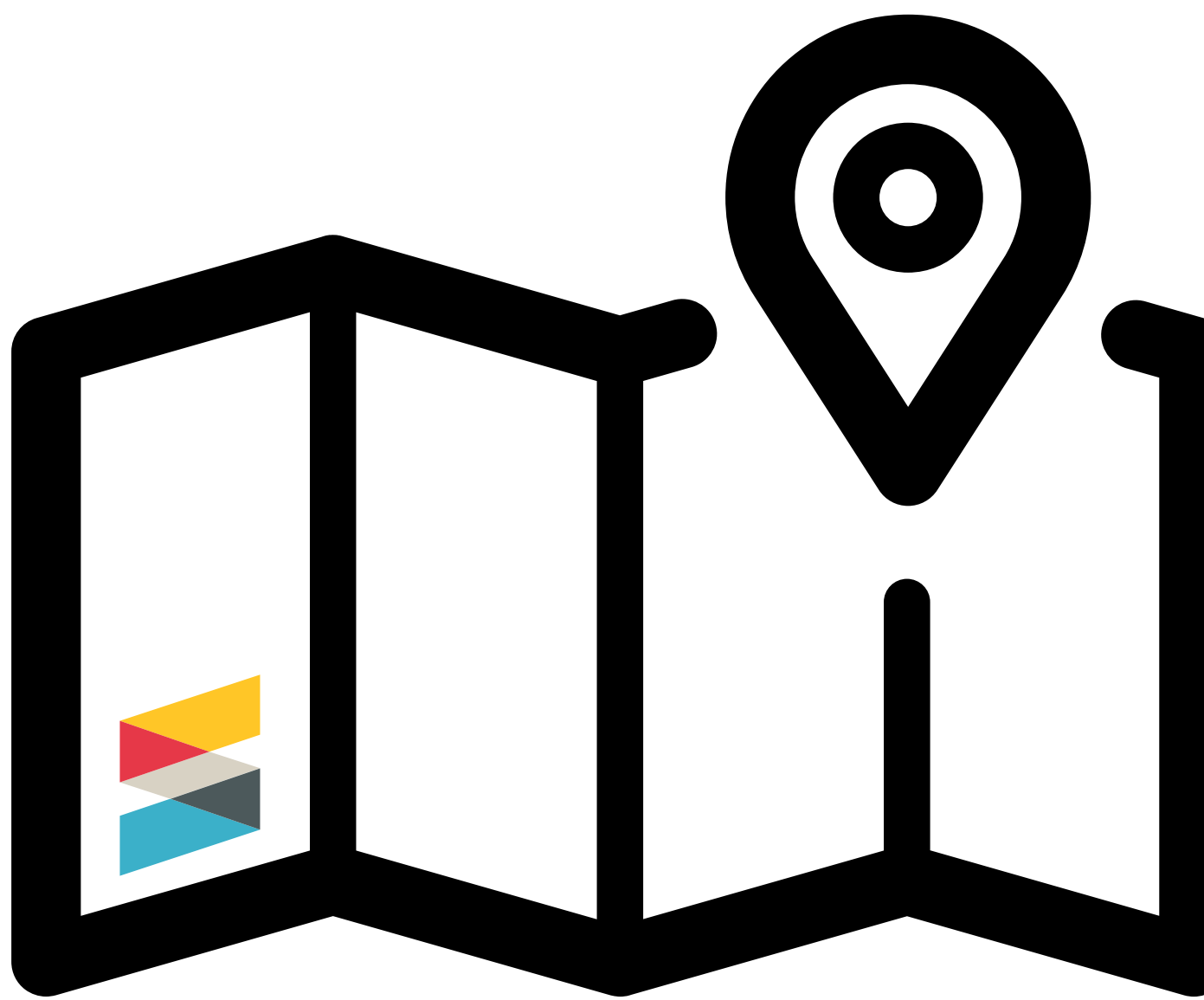


- shares
- mentions
- discussions
- citations
- recommendations
- reviews...





**an open  
scholarly map  
for the whole  
research  
enterprise**



# Open to machines

## Crossref REST API

<http://api.crossref.org>

## Crossref Event Query API

[soon!](#)

## Python & Ruby & r libraries from rOpenSci

- Filters (see below)
- Deep paging (see below)
- Pagination
- Verbose curl output



```
{
  status: "ok",
  message-type: "work-list",
  message-version: "1.0.0",
  - message: {
    - items: [
      - {
        subtitle: [ ],
        - subject: [
          "Atomic and Molecular Physics, and Optics"
        ],
        - issued: {
          - date-parts: [
            - {
              2013,
              9,
              9
            }
          ]
        },
        score: 1,
        prefix: "http://id.crossref.org/prefix/10.1364",
        - author: [
          - {
            family: "Liu",
            given: "Xiaoze"
          },
          - {
            family: "Goldberg".
          }
        ]
      }
    ]
  }
}
```

# Your content (metadata) reaches:

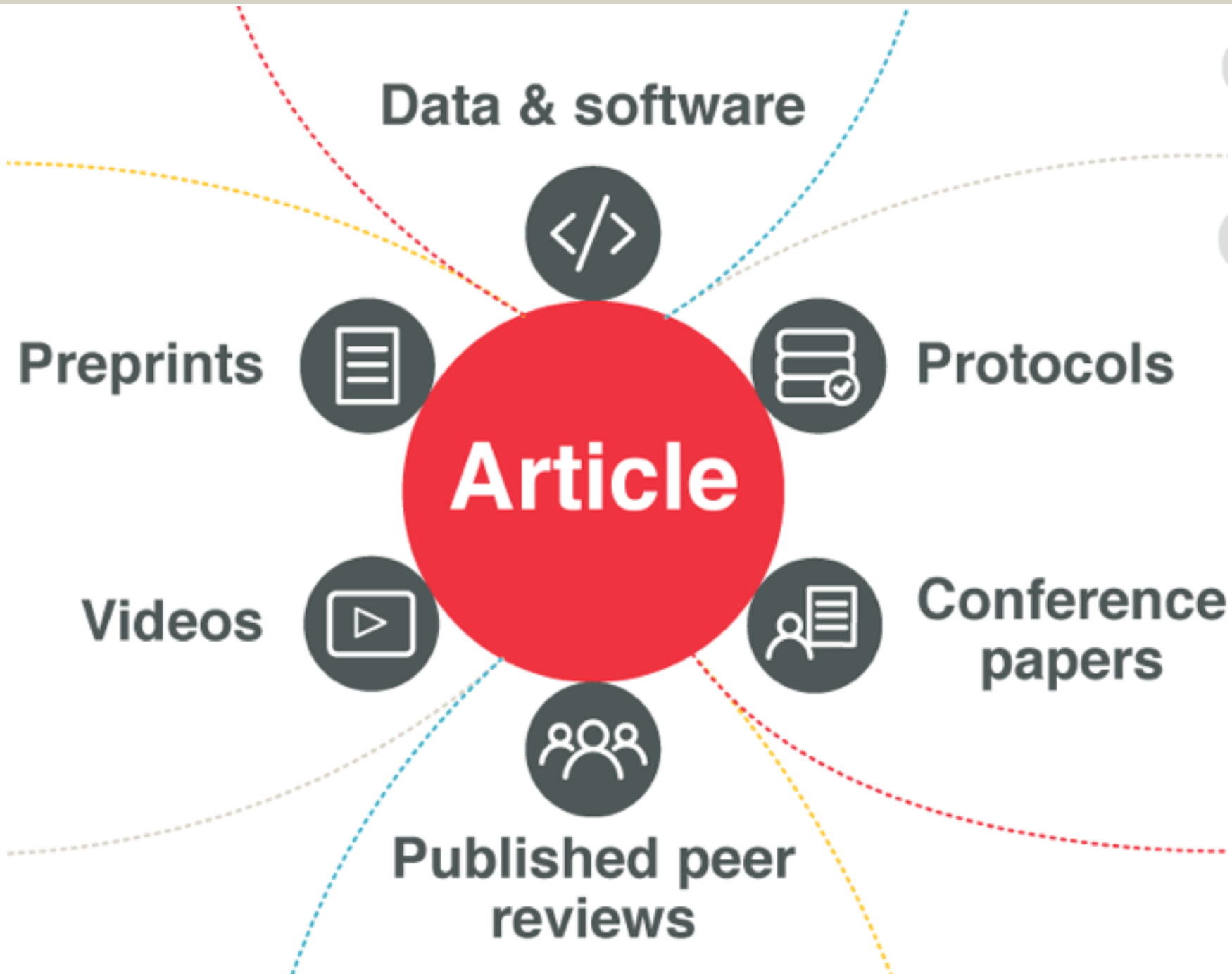
- Funders
- Institutions
- Archives & repositories
- Research councils
- Data centres
- Professional networks
- Patent offices
- Indexing services
- Publishing vendors
- Peer review systems
- Reference manager systems
- Lab & diagnostics suppliers
- Info mgmt systems
- Educational tools
- Data analytics systems
- Literature discovery services
- PID providers, registration agencies

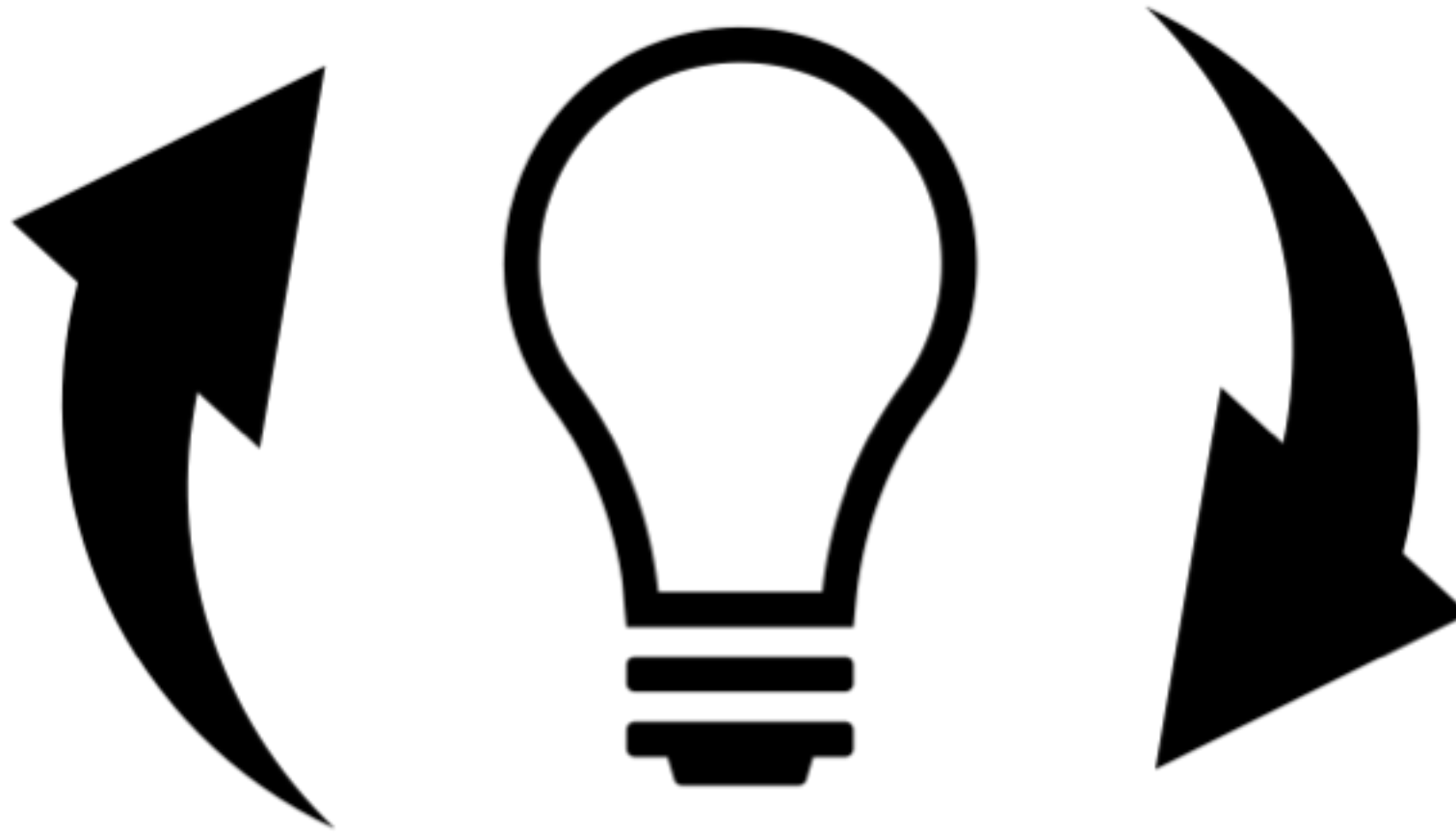
# Publisher Call to Action

---

- Stop building the data desert
- Deposit & share full metadata
- Consider the metrics you promote







**open it for re-use**

# Thank you

Jennifer Lin, PhD  
jlin@crossref.org  
@jenniferlin15

[orcid.org/0000-0002-9680-2328](https://orcid.org/0000-0002-9680-2328)

Noun Project contributors: BlueTip Design, Jose Moya, Gira Park, Jérôme Poslednik, Adame Dahmani, Simple Icons, Mani Amini, Viktor Vorobyev, useiconic.com, Ashwin Dinesh, Aldric Rodríguez Iborra, Veronika Krpciarova

