# Crossref in brief

- >19,000 organisational members from 151 countries
- 38% are university/faculty or other research institution
- 156+ million open metadata records with a DOI
- 1.1 billion DOI resolutions every month
- 1000s systems reusing metadata through search/API
- Technical solution but also a community convener
- POSI-compliant nonprofit open infrastructure
- 47 staff across 7 time zones and 10 countries



# WHAT WE'RE AIMING FOR

- Bringing together the disparate pieces of the scholarly record
- Better view of relationships (beyond PIDs)
- Exposing internal stuff publicly
- Enabling multi-party assertions
- Evidence. Provenance. Persistence.
- •60% of this is possible, the rest is aspirational

# Joint statement on research data

- Publishers set appropriate journal data policies, describing the way in which data is to be **shared alongside the published article**.
- Publishers set instructions for authors to include Data Citations with persistent identifiers in the references section of articles.
- Publishers include Data Citations and links to data in Data Availability Statements with persistent identifiers (DOIs where available) in the article metadata registered with Crossref.
- In addition to Data Citations, Data Availability Statements (human- and machinereadable) are included in published articles where appropriate.
- Repositories and publishers connect articles and datasets through **persistent** identifier connections in the metadata and reference lists.
- Funders and research organizations provide researchers with guidance on open science practices, track compliance with open science policies where possible, and promote and incentivize researchers to **openly share**, **cite and link** research data.

#### Start citing data now. Not later



<u>Geoffrey Bilder</u> – 2023 March 23 In Metadata, Citation, Data Citation, Research Nexus

Recording data citations supports data reuse and aids research integrity and reproducibility. Crossref makes it easy for our members to submit data citations to support the scholarly record.

#### TL;DR

Citations are essential/core metadata that all members should submit for all articles, conference proceedings, preprints, and books. Submitting data citations to Crossref has long been possible. And it's easy, you just need to:

- Include data citations in the references section as you would for any other citation
- Include a DOI or other persistent identifier for the data if it is available just as you would for any other citation
- Submit the references to Crossref through the content registration process as you would for any other record

And your data citations will flow through all the normal processes that Crossref applies to citations. And it will be distributed openly to the community (including DataCite!) via Crossref's services and APIs. All data citations deposited with Crossref will be exposed in the (soon-to-be launched) Data Citation Corpus.

And then, you can sit back and congratulate yourself for making your publication more useful to researchers who want to be able to reuse the data underlying your publications.

#### https://www.crossref.org/blog/start-citing-data-now.-not-later/

	https://doi.org/10.1016/j.cell.2015.09.034   PubMed   Google Scholar	Version of Record
Abstract	Katsov AY, Clandinin TR (2008) Motion processing streams in Drosophila	Accepted for publication after peer review and revision.
Results	are behaviorally specialized <i>Neuron</i> <b>59</b> :322–335. https://doi.org/10.1016/j.neuron.2008.05.022   PubMed   Google Scholar	➡ Download <b>99</b> Cite
Discussion	<sub>Data</sub> Katsov AY, Freifeld L, Horowitz M, Kuehn S, Clandinin TR (authors) (2017)	Share 🕞 Comment
Materials and methods	Data from: dynamic structure of locomotor behavior in walking fruit flies Dryad Digital Repository. https://doi.org/10.5061/dryad.854j2	4,291 views, 20 citations
Data availability	Kutch JJ, Kuo AD, Bloch AM, Rymer WZ (2008) Endpoint force fluctuations	Version of Record updated
References	Journal of Neurophysiology <b>100</b> :2455–2471.	August 29, 2017 (This version)
Article and author	https://doi.org/10.1152/jn.90274.2008   PubMed   Google Scholar	Version of Record updated
information		August 18, 2017 · (Go to version)
Metrics	Liu KS, Sternberg PW (1995) Sensory regulation of male mating behavior	Version of Record published
	https://doi.org/10.1016/0896-6273(95)90242-2   PubMed   Google Scholar	July 25, 2017 · (Go to version)
		Accepted

This eLife article: <u>https://doi.org/10.7554/eLife.26410</u> cites this dataset in Dryad <u>https://doi.org/10.5061/dryad.854j2</u>

## input (XML)

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<citation key="bib40">
    <volume_title>Dryad Digital Repository</volume_title>
    <author>Katsov</author>
    <cYear>2017</cYear>
    <article_title>Data from: dynamic structure of locomotor behavior in walking fruit flies</article_title>
    <doi>10.5061/dryad.854j2</doi>
    </citation>
    </orticle_title>
    </orticle_title>
    </orticle_title>
    </orticle_title>
    </orticle/title>
    </or>
```

## output (JSON)

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{
    "key": "bib40",
    "doi-asserted-by": "publisher",
    "article-title": "Data from: dynamic structure of locomotor behavior in walking fruit flies",
    "volume-title": "Dryad Digital Repository",
    "author": "Katsov",
    "vear": "2017",
    "DOI": "10.5061/dryad.854j2"
},
```