DataCite Open Citations

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DATACITE

A DOI registration agency with a focus on research data and grey literature. As of 3 September 2018:

113 members working with 1654 clients who register DOIs.

12,402,039 DOIs, including 4,732,368 for research data, 3,477,511 for text documents, 1,098,753 for images, and 702,063 for physical objects.

About 17 million references.

NOT THE PROBLEM

Citation data are not usually freely available to access, they are often subject to inconsistent, hard-to-parse licenses, and they are usually not machine-readable.

https://i4oc.org

RELATED_IDENTIFIER

RelatedIdentifier is the DataCite metadata attribute that describes identifiers of related resources. These must be globally unique identifiers.

RelatedIdentifierType
RelationType
ResourceType

OPENING UP DATACITE CITATIONS MEANS

LICENSE

All citation data have always been available without restrictions. We have added a CC 0 waiver to each citation in our API to make this explicit.

REFERENCED-BY

We have in 2018 started to build infrastructure to not only make references more readily available, but also track references to DataCite DOIs.

ADOPTION

Numbers of references per DOI provided in metadata are low. Referenced-by services, simplifying deposition of references, and outreach activities should help increasing these numbers.

A. **Not limited to DataCite content** – also references to DOIs from other DOI registration agencies (99.8% are to Crossref), content using other identifiers, and URLs

B. **Not limited to DataCite as source** – also include references provided by other organizations (currently only Crossref, want to add EuropePMC)

C. **Not limited to traditional citations** – also including social media events and usage statistics for comprehensive Open Metrics

D. **Not limited to references** – also include versions, isPartOf relations as well as other identifiers (via AlternateIdentifier), funding (via FunderIdentifier) and researchers (via NameIdentifier)

EVENT DATA

Crossref and DataCite are jointly developing the Event Data service that provides a record of instances where research has been bookmarked, linked, liked, shared, referenced, commented on etc, beyond publisher platforms. For example, when datasets are linked to articles, articles are mentioned on social media or referenced in Wikipedia.

EVENT DATA

CROSSREF EVENT DATA

Initial focus on altmetrics, in particular Twitter and Wikipedia. Available as open beta, will launch very soon.
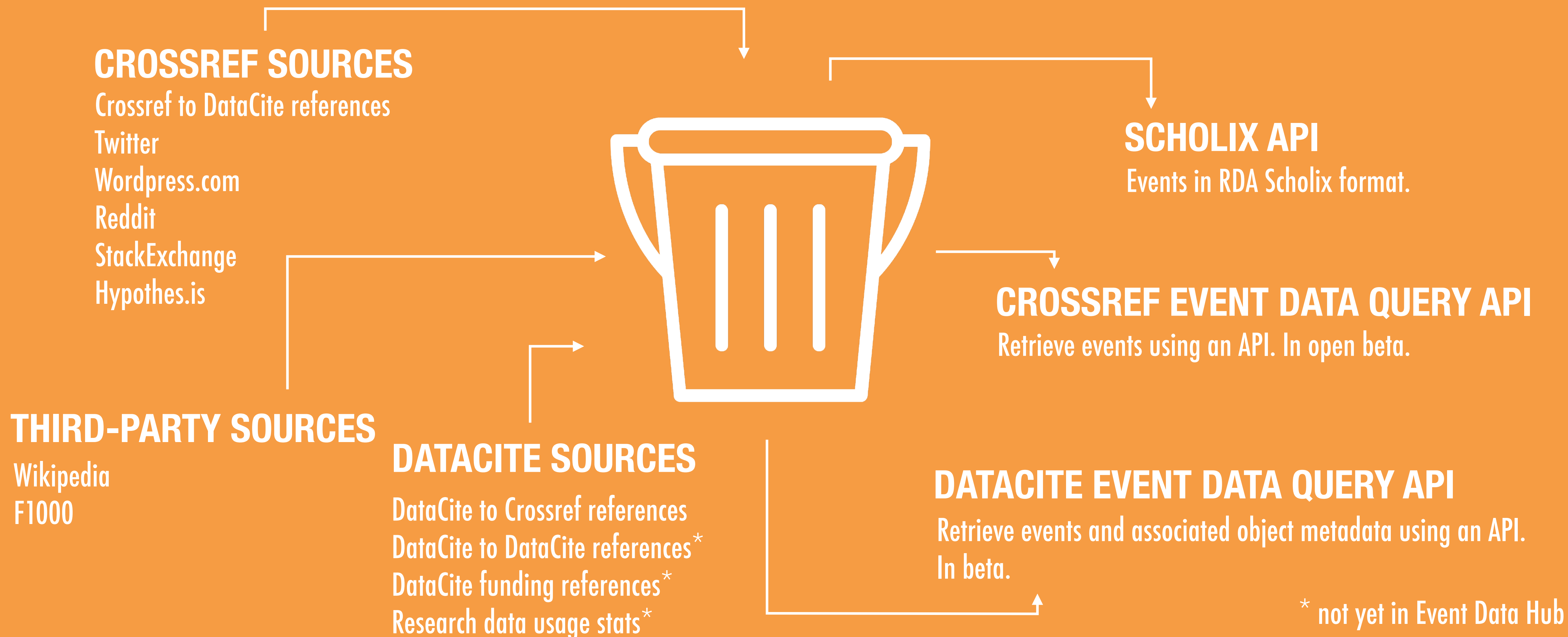
DATACITE EVENT DATA

Initial focus is on data citations and data usage stats. Current work as part of the Make Data Count Project, funded by the Alfred P. Sloan Foundation, and FREYA project, funded by the European Commission.

EVENT DATA HUB

Stores all events that involve a Crossref and/or DataCite DOI.

CROSSREF SOURCES

Crossref to DataCite references
Twitter
Wordpress.com
Reddit
StackExchange
Hypothes.is

THIRD-PARTY SOURCES

Wikipedia
F1000

DATACITE SOURCES

DataCite to Crossref references
DataCite to DataCite references*
DataCite funding references*
Research data usage stats*

SCHOLIX API

Events in RDA Scholix format.

CROSSREF EVENT DATA QUERY API

Retrieve events using an API. In open beta.

DATACITE EVENT DATA QUERY API

Retrieve events and associated object metadata using an API. In beta.

* not yet in Event Data Hub

PID GRAPH

The PID Graph is a network of connections between PIDs available through a set of federated RESTful JSON APIs. FREYA partners have identified a number of gaps that could be addressed only using this improved network of PID connections.

THE PID GRAPH WILL PROVIDE ADVANCED CITATION DATA

VERSIONS

Track citations across versions, in particular for (dynamic) data and software.

RESEARCH OBJECTS

Connect all relevant resources that make up a research object (publication, data, software, preprint, reviews, researchers, funding, etc.). Track citations across all these resources.

OUTPUT TRACKING

Track all outputs and associated citations by repository, publisher, researcher, grant, funder, or institution.