Strengthening the Scholarly Record: A Workshop on Crafting Metadata Records & DOIs with Crossref

Jennifer Kemp
Head of Business Development
@SaysJKemp

Library Publishing Forum, May 23rd 2018
Crossref makes research outputs easy to find, cite, link, and assess.

We’re a not-for-profit membership organization that exists to make scholarly communications better. We rally the community; tag and share metadata; run an open infrastructure; play with technology; and make tools and services—all to help put scholarly content in context.

It’s as simple—and as complicated—as that.
Why do publishers join Crossref?

• Content discoverability
• Show people where content is located including if/when the content moves
• Drive more traffic to publications
• Link references
• Participate in other collaborative services
96,721,336
Registered content records

2,785,753
Records with funding information

1,454,441
Records with ORCID iDs

2,049,205
Records with a Funder Registry ID

30,786,067
Records with licenses

6,845,791
Crossmark count

66,894,185
Records with full-text links

10,400
Member organizations

2,186
Registered retractions through Crossmark

81,675
Registered updates through Crossmark
Content by Type

- Journals: 72%
- Books: 16%
- Conference Proceedings: 5%
- Standards: 1%
- Reports: 1%
- Components: 3%
- Databases: 2%
New

Peer Review Reports
Reference Distribution Policy
Pending Publication
Event Data
Publisher Participation Reports
Metadata Manager Deposit Tool
OrgIDs
Grant IDs
Metadata for (almost) any occasion

• Literature discovery
• Research integrity tracking
• Reproducibility
• Reporting to funders and institutions
• Funder policy compliance
• &tc…
Metadata for research integrity

• Updates (corrections, retraction, update, expressions of concern, etc.): Crossmark
• Peer review history, type, assets
• Funding data (COI)
• ORCIDs (authors, reviewers, editors, etc.)
• Affiliation (authors, reviewers, editors, etc.)
• License data (full text, abstract, etc.)
Metadata for discoverability

- ORCID, Funder ID & Award No.
- Abstracts
- References
- Links to data & software
- Links to preprints
- Links to conference papers and posters
- Links to research resource IDs (identifiers for assays, materials, etc.)
- Links to post-publication events (reviews, comments & discussions, bookmarks, shares, recommendations, etc.) Event Data
- Access indicators (publication license for text & data mining, machine mining URLs)
Metadata for reproducibility

• Updates (corrections, retraction, update, expressions of concern, etc.)
• Funding data (COI) & ORCIDs (authors, reviewers, editors, etc.)
• License data (full text, abstract, etc.)
• Links to peer review assets
• Links to underlying data & software
• Links to protocols
• Links to versions
• Links to videos/audio and other supporting information
• Links to research resource IDs (identifiers for assays, materials, etc.)
• Links to clinical trial registry and trial number
Metadata for reporting and assessment

- ORCID, Funder ID, Grant ID & Award No.
- Abstracts
- References: Cited-by
- Peer review description & assets
- Links to data & software
- Links to preprints
- Links to conference papers and posters
- Links to research resource IDs (identifiers for assays, materials, etc.)
- Links to post-publication events (reviews, comments & discussions, bookmarks, shares, recommendations, references, media coverage)
- Access indicators (publication license for text & data mining, machine mining URLs)
Your metadata content reaches:

- Funders
- Institutions
- Archives & repositories
- Research councils
- Data centres
- Professional networks
- Patent offices
- Indexing services
- Publishing vendors
- Metrics providers
- Reference manager systems
- Lab & diagnostics suppliers
- Sharing platforms
- Data analytics systems
- Literature discovery services
- Educational tools
- PID providers, registration agencies
How good is your metadata?

Find a member

Search by member

Richer metadata makes content useful. Make sure your work can be found.
Crossref Data & Software Citation Deposit Guide for Publishers

Data & software citation is good research practice and is part of the scholarly ecosystem supporting research validation and reproducibility. Data & software citation is also instrumental in enabling the use and verification of research outputs, tracking their impact, and creating a scholarly structure that recognizes and rewards those involved in producing them.

Crossref supports the propagation of data & software citations alongside a publisher’s standard bibliographic metadata. Publisher members deposit the data citation link as part of the overall publication metadata when registering their content. Crossref partners with DataCite and together, we jointly provide a clearinghouse for the citations collected. These are all made freely available to the community as open data, human and machine-readable.

Depositing data citations

https://support.crossref.org
Thank you

Jennifer Kemp
jkemp@crossref.org
@SaysJKemp
Strengthening the scholarly record: A Workshop on Crafting Metadata Records and DOIs with Crossref

Shayn Smulyan
Product Support Associate
support@crossref.org
@CrossrefSupport

Library Publishing Forum, May 23, 2018
Who registers content with Crossref?

About you

We have 10,013 members from 114 countries. Many types of organizations interact with Crossref. You could be a research institution, a publisher, a government agency, a research funder, or a start-up. In order to become a member, register content and deposit metadata you’ll need to meet one criterion:

You want to share research outputs through metadata and persistent identifiers and/or you represent organizations who do.

If you can commit to creating and maintaining a metadata record for your published content, in the long-term, then Crossref membership is for you.
What can you register? Content Types.

- Journals
- Books
- Conference Proceedings
- Dissertations
- Data Sets
- Reports
- Standards
- Preprints
- Peer Reviews
Content Registration Overview

• Construct DOIs
• Prepare XML metadata
• Submit metadata to Crossref
• Confirm Success
Then What?

- Outbound Reference Linking
- Reports
- Updating/Maintaining DOIs
  - URLs
  - adding/correcting/editing metadata
- Title Transfers
What you need before you begin

• A DOI assigned to your content item
  • DOI = Prefix / Suffix
  • We assign you the prefix, you create the suffix
  • Allowed characters: a-z, 0-9, and - . _ ; ( ) /

• A URL for that item’s landing page which includes
  • Some means for users to access the full text content
  • The DOI displayed as a link: https://doi.org/{DOI}
  • A citation or basic bibliographic data displayed

• Metadata that describes the item you’re registering
Demo: Content Registration


10.5555/2014-04-01

http://psychoceramics.labs.crossref.org/
10.5555-2014-04-01.html
Do Mug Fairies Exist? An experiment in self-cleaning crockery

Ed Pentz, CrossRef

http://dx.doi.org/10.5555/2014-04-01

Abstract

The author set out to prove that if coffee or tea mugs are left in an office for long enough they will clean themselves. Previous research in this area suggests that this hypothesis is true, as the author has very infrequently had to resort to cleaning the mugs himself.

© 2012 Society of Psychoceramics

Note, outdated DOI display format. “dx” and “http”
Web Deposit Form - Select Content Type

These forms allow you to enter metadata and register DOIs. Review the help documentation for details.

Note: Your Crossref username and password will be required at the end of this process to submit data to the system. Please insure your browser allows JavaScript so that the data validation will function.

Step 1: Select Data Type

<table>
<thead>
<tr>
<th>Data Type Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Data Type:</td>
</tr>
<tr>
<td>☐ NLM File <strong>BETA</strong> ☐ Supplemental-Metadata Upload <strong>BETA</strong></td>
</tr>
</tbody>
</table>
## Journal- and Issue-level Metadata

### Step 2: Identify the Journal

#### Journal Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Journal of Psychoceramics</td>
</tr>
<tr>
<td>Abbr.</td>
<td>JoP</td>
</tr>
<tr>
<td>Journal DOI</td>
<td></td>
</tr>
<tr>
<td>Journal URL</td>
<td></td>
</tr>
<tr>
<td>Print ISSN</td>
<td>02643561</td>
</tr>
<tr>
<td>Elect ISSN</td>
<td></td>
</tr>
<tr>
<td>Journal DOI and/or ISSN required</td>
<td></td>
</tr>
<tr>
<td>Volume</td>
<td>5</td>
</tr>
<tr>
<td>Issue</td>
<td>11</td>
</tr>
<tr>
<td>Issue DOI</td>
<td></td>
</tr>
<tr>
<td>Issue URL</td>
<td></td>
</tr>
</tbody>
</table>

#### Publication Dates

*note: use numerical values (YYYY, MM, DD)*

**Type: print**

*Year: 2014  Month: 04  Day: 01*

**Type: online**

*Year: 0  Month: 0  Day: 0*

* a minimum of one publication year is required

+ complete Title, Abbr., Journal DOI/URL and/or ISSN fields for title-level Journal deposit

Submit Journal/Issue DOI  Add Articles
Article Metadata

Article information
Title* Do Mug Fairies Exist? An experiment in self-cleaning crock
Original Title (for translated works only)

Contributors
Person Role First Name Last Name ORCID
author Ed Pentz https://orcid.org/0000
Organization (optional)
author

Publication dates
note: use numerical values (YYYY, MM, DD)

Type: print
*Year 2014 Month: 04 Day: 01

Type: online
*Year Month: Day:

* a minimum of one publication year is required

DOI* 10.5555/2014-04-01
URL* http://psychoceramics.labs.crossref.org/10.5555-2014-04
First page:
Last page:

Add CrossMark Metadata

Add Another Article Finish Cancel
Enter credentials and submit

Your deposit is now ready to upload to the CrossRef system. Please enter your CrossRef username and password. Also provide a valid email address where the deposit can be delivered to.

Step 4: Input your user information

<table>
<thead>
<tr>
<th>User Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username</td>
</tr>
<tr>
<td>creftest</td>
</tr>
</tbody>
</table>

[Deposit] [Cancel]
Confirmation Message

httpResp status is HTTP/1.1 200 OK

SUCCESS

Your batch submission was successfully received.

webDeposit

Version: 1.40

Your deposit has been submitted to the system. The log results will be sent to you in an email.

Your XML file is named: cr118d09041612e53cfe4-2d7b.xml

To return to the beginning and start another deposit, please press 'Restart'.

Restart
First email - contains deposited XML

Crossref WebDeposit - XML

reports@crossref.org
to me

The attached file contains the XML data for your deposit as requested.

Click here to Reply or Forward
If you need to edit or correct any metadata, you can resubmit this XML file with changes. Be sure to update the <timestamp> element to a higher number.
Second email - Submission log

CrossRef submission ID: 1425492809

Record count = Success count
Submission on our admin system

<table>
<thead>
<tr>
<th>ID</th>
<th>Filename</th>
<th>Depositor</th>
<th>Area</th>
<th>DB</th>
<th>Type</th>
<th>Received</th>
<th>Started</th>
</tr>
</thead>
<tbody>
<tr>
<td>1425492809</td>
<td>cr118d09041612e53cfe4-2d7b.xml</td>
<td>cref-test</td>
<td>L</td>
<td>DS</td>
<td>XML metadata</td>
<td>06-May-18</td>
<td>2018-05-06</td>
</tr>
</tbody>
</table>

Legend: L: Live  T: Test; 📄=Link to content  E=Has errors  ✗=Has conflicts
Record on Metadata Search Interface

Once registered, the item appears in our APIs and Metadata Search Interface
Demo: Simple Text Query

Simple Text Query
https://doi.crossref.org/simpleTextQuery

• Query DOIs for a reference list to comply with our outbound reference linking display requirement
• Deposit references into a DOI’s metadata record
Example Reference list

Query Services Account

Crossref Query Services Account Request Form

Crossref provides various web interfaces for key query services. Registered Crossref Members, Libraries and Affiliates may use the web interfaces with their previously supplied system account credentials. The Crossref Query Services interfaces are:

* SimpleText Query
* OpenURL
* HTTP

If you are not a Crossref member with account credentials, you may register for an account here. This account registration service is available at no charge to certain entities (please see the detailed terms and conditions below).

The purpose of requiring an account for using Crossref Query Services is simply to monitor usage to balance system demand and to identify problems.

If you have any questions please email support@crossref.org

To create an account, you will need to provide your email address. You will receive an email for verification and to activate your account.

Email:

Organization:

This agreement (the "Agreement") contains the terms and conditions applicable to the use of the Open URL, Linked Data and Query Query Form services, offered by Crossref to the public at no charge through the Crossref web site (www.crossref.org) (collectively, the "CrossRef Free Services").

1. OWNERSHIP. Crossref asserts no claims of ownership to individual items of bibliographic metadata and associated Digital Object Identifiers.

I agree to the Terms and Conditions

I'm not a robot

Submit
Copy-paste references and Submit STQ form

Get persistent links for your reference list or bibliography. Copy and paste the list, we'll match with our metadata and return the links. Please register for citation matching, verify an email address, and agree to the terms. Members may also deposit reference lists here too.

Enter the email address you registered for use of Crossref services. If you have not registered your email address, request an account.

Registered email: support@crossref.org

Enter text in the box below:


☐ Include PubMed IDs in results.

Submit
References display with DOIs beneath


Using Simple Text Query to deposit References

Click “Deposit” to expand form
Reference Deposit Confirmation

Get persistent links for your reference list or bibliography. Copy and paste the list, we'll match with our metadata and return the links. Please register for citation matching, verify an email address, and agree to the terms. Members may also deposit reference lists here too.

Your Reference-Deposit file was accepted. Please watch for two emails from the system. One will contain your deposit file and the second will contain the system results log.

Do not use your browser's 'BACK' button. Use the 'RESET' button to submit more references.

This service allows up to 5,000 references per month. There are other services and interfaces for high-volume citation queries.

Please contact us if you have any questions.

Tips:
Email Confirmation and XML

Your Cited-By Reference Deposit

reports@crossref.org <reports@crossref.org>
to me

Please see the attached file for a copy of your Cited-By reference deposit.

Click here to Reply or Forward
XML Reference-only Deposit

We call this a “resource-only deposit”. Adds ancillary metadata to an already-registered DOI.
Submission Log Email for Reference Deposit

• Resolved Reference = Matched as citing this DOI
• Stored Query = No match, we’ll query again periodically
Reference Distribution and Cited-By

Once you have references deposited you can:

• Query for the DOIs that match as citing your content*
• Opt to have your references distributed as open, limited, or closed

*You need to sign-up for our Cited-by service first, but there’s no fee involved
Cited-by Count in metadata record for 10.5555/777766665555

<crm-item name="citedby-count" type="number">1</crm-item>
Coming soon, Metadata Manager…
...and Participation Reports
Thank you!

@CrossrefSupport
support@crossref.org