

The logo for Crossref, featuring the word "cross" in red and "ref" in black, with two black curved lines arching over the text.

crossref

REST API

What is CrossRef?

- A big blob of continually updated metadata about scholarly works
- Our facts are assertions by publishers
- Not-for-profit that wants breadth, inclusiveness

Publishers

Basic metadata

Titles, authors, ISSNs, ISBNs
Journal articles, conference proceedings, data, standards

Funding information

Funder identifiers, award numbers

License information

License URIs (NISO ALI)

Full-text locations

URIs direct to full-text articles

Significant updates

Retractions, corrections

ORCID*s*



Publishers

Basic metadata

73,000,000 DOIs - 56,000,000 journal articles, 4,000,000 proceedings, 1,000,000 data

Funding information

635,000 DOIs with funding information, 9,000 funders

License information

3,000,000 DOIs, 99 unique licenses (many CC variants)

Full-text locations

12,000,000 DOIs

Significant updates

21,000 updates, 580 retractions

ORCIDs

200,000 DOIs



Until recently...

- Tell me which licenses eLife uses
 - Sign up to CrossRef EMS
 - Download ~1TB of XML via OAI-PMH
 - Parse and scan for eLife's DOIs, record licenses

With our REST API:

- Find member ID for eLife

<http://api.crossref.org/members?query=elife>

- Ask for their licenses

http://api.crossref.org/members/4374/works?facet=license:*&rows=0

```
{
  status: "ok",
  message-type: "work-list",
  message-version: "1.0.0",
- message: {
  items: [ ],
  total-results: 22187,
  - query: {
    search-terms: null,
    start-index: 0
  },
  items-per-page: 0,
  - facets: {
    - license: {
      value-count: 9,
      - values: {
        http://creativecommons.org/licenses/by/3.0/: 644,
        http://creativecommons.org/licenses/by/4.0/: 617,
        http://creativecommons.org/publicdomain/zero/1.0/: 37,
```

50 / 50 CC-BY 3.0 and 4.0, a bit of CC0

GET /works

GET /works/10.5555/12345678

GET /funders/123

GET /members/55/works

GET /licenses

GET /journals/1234-567X/works

Response format is JSON, citeproc JSON for works

CrossRef REST API

- Search, filter, facet, sample CrossRef metadata
- Free to use
- Do whatever you want with the data
- Code publicly available

<http://github.com/CrossRef>

DOI Content Negotiation



crossref

mEDRA



Format	Content Type	CrossRef	DataCite	mEDRA
RDF XML	application/rdf+xml	Yes	Yes	Yes
RDF Turtle	text/turtle	Yes	Yes	Yes
Citeproc JSON	application/vnd.citationstyles.csl+json	Yes	Yes	Yes
Formatted text citation	text/x-bibliography	Yes	Yes	Yes
RIS	application/x-research-info-systems	Yes	Yes	No
BibTeX	application/x-bibtex	Yes	Yes	Yes
CrossRef Unixref XML	application/vnd.crossref.unixref+xml	Yes	No	No
DataCite XML	application/vnd.datacite.datacite+xml	No	Yes	No
ONIX for DOI	application/vnd.medra.onixdoi+xml	No	No	Yes

What do people already do with these things?

- Search services (including CrossRef's own, FundRef Search)
- Bibliography / PDF library management tools
- Reporting on funding activities, publishing activities, author activities
- Ingest of scholarly metadata (OAI-PMH replacement) and metadata lookup
- Locating full-texts for content mining

TYPE

- Journal Article (80,894)
- Chapter (10,385)
- Conference Paper (4,273)
- Dataset (865)
- Report (518)
- Component (441)
- Book (302)
- Entry (293)
- Monograph (224)
- Other (58)

YEAR

- 2009 (5,336)
- 2013 (5,017)
- 2014 (4,857)
- 2012 (4,670)
- 2011 (4,613)
- 2010 (4,212)
- 2008 (3,671)
- 2007 (3,381)
- 2005 (3,036)
- 2006 (3,032)

PUBLICATION

- Encyclopedia of Database Systems (1,310)
- Lecture Notes in Computer Science (1,241)
- The African Book Publishing Record (1,173)
- Learned Publishing (1,014)
- Publishing Research Quarterly (1,011)
- Journal of Scholarly Publishing

SORT BY: **RELEVANCE** PUBLICATION YEAR

PAGE 1 OF 98,346 RESULTS

Strategic Reading, Ontologies, and the Future of Scientific Publishing

Journal Article published **13 Aug 2009** in **Science** volume **325** Issue **5942** on pages **828** to **832**

Authors: A. H. Renear, C. L. Palmer

<http://dx.doi.org/10.1126/science.1157784>  Actions

Mobile publishing ontologies : A Semantic-based service management model for the mobile publishing

Conference Paper published **Sep 2010** in **2010 2nd IEEE International Conference on Information and Financial Engineering**

Authors: Hejie Chen, Dan Chen

<http://dx.doi.org/10.1109/icife.2010.5609425>  Actions

The Semantic Publishing and Referencing Ontologies

Chapter published **2014** in **Law, Governance and Technology Series** on pages **121** to **193**

Authors: Silvio Peroni

http://dx.doi.org/10.1007/978-3-319-04777-5_5  Actions

Publishing agro-environmental resources as linked data

Journal Article published **2012** in **International Journal of Metadata, Semantics and Ontologies** volume **7** Issue **1** on page **25**

Authors: Saša Nešić, Andrea E. Rizzoli, Ioannis N. Athanasiadis

<http://dx.doi.org/10.1504/ijmso.2012.048507>  Actions

Publishing a Disease Ontologies as Linked Data

Chapter published **2014** in **Lecture Notes in Computer Science** on pages **110** to **128**

Authors: Kouji Kozaki, Yuki Yamagata, Takeshi Imai, Kazuhiko Ohe, Riichiro Mizoguchi

http://dx.doi.org/10.1007/978-3-319-14122-0_10  Actions

DEPARTMENT OF HEALTH

National Institute for Health Research

- [Efficacy and Mechanism Evaluation Programme](#)
- [Public Health Research Programme](#)
- [Research Trainees Coordinating Centre](#)
- [Health Technology Assessment Programme](#)
- [Service Delivery and Organisation programme](#)
- [Health Services and Delivery Research \(HS&DR\) Programme](#)

TYPE

- Journal Article (558)
- Dataset (91)
- Report (1)

YEAR

- 2015 (286)
- 2014 (236)
- 2013 (20)
- 2012 (12)
- 2011 (4)
- 2010 (1)

PUBLICATION

- <http://isrctn.com/> (91)
- Health Technology Assessment (17)
- Health Services and Delivery Research (13)
- BJOG: An International Journal of Obstetrics & Gynaecology (11)
- BJOG: Int J Obstet Gy (11)
- Health Expect (11)

SORT BY: **RELEVANCE** PUBLICATION YEAR

 [DOWNLOAD AS CSV](#)

PAGE 1 OF 650 RESULTS

Providing effective and preferred care closer to home: a realist review of intermediate care

Journal Article published **Feb 2015** in **Health & Social Care in the Community** on pages **n/a to n/a**

Research funded by Service Delivery and Organisation programme (10/1012/07)

Authors: Mark Pearson, Harriet Hunt, Chris Cooper, Sasha Shepperd, Ray Pawson, Rob Anderson

<http://dx.doi.org/10.1111/hsc.12183>  Actions

Follow-up of post-transplant minimal residual disease and chimerism in childhood lymphoblastic leukaemia: 90 d to react

Journal Article published **19 Dec 2014** in **British Journal of Haematology** volume **169** Issue **2** on pages **249 to 261**

Research funded by Public Health Research Programme (2003)

Authors: Cécile Pochon, Emmanuel Oger, Gérard Michel, Jean-Hugues Dalle, Alexandra Salmon, Brigitte Nelken, Yves Bertrand, Hélène Cavé, Jean-Michel Cayuela, Nathalie Gardel, Elizabeth Macintyre, Geneviève Margueritte, Françoise Méchinaud, ...

<http://dx.doi.org/10.1111/bjh.13272>  Actions

Expression of Glis and Glis2 glutaminase isoforms in astrocytes

Journal Article published **9 Oct 2014** in **Glia** volume **63** Issue **3** on pages **365 to 382**

Research funded by Public Health Research Programme (CVI-6656) | Public Health Institute (RD06/1012 RTA (RETICS), CIBERNED grant PI2013/01)

Authors: Carolina Cardona, Elisabeth Sánchez-Mejías, José C. Dávila, Mercedes Martín-Rufián, José A. Campos-Sandoval, Javier Vitorica, Francisco J. Alonso, José M. Matés, Juan A. Segura, Michael D. Norenberg, Kakulavarapu V. Rama Rao, Arumu ...

<http://dx.doi.org/10.1002/glia.22758>  Actions

Recent advances in silicon-based neural microelectrodes and microsystems: a review

Journal Article published **Aug 2015** in **Sensors and Actuators B: Chemical** volume **215** on pages **300 to 315**

Research funded by Public Health Research Programme (KTIA NAP 13 B) | Alexander von Humboldt-Stiftung

Authors: Zoltan Fekete

<http://dx.doi.org/10.1016/j.snb.2015.03.055>  Actions



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JournalHub

PKP

PUBLIC
KNOWLEDGE
PROJECT

KUDOS 
Greater Research Impact




Text and Data Mining


beta


beta

<https://github.com/atisharma/searchtobibtex>

📖 README.md

searchtobibtex: tools to manage bibtex and pdfs via crossref searches

doitobibtex – Pulls bibtex data from a supplied doi URL via the crossref API.

pdftobibtex – Retrieves bibtex data for PDFs of journal papers, by performing a crossref search query via the DOI.

pdf-rename-by-doi – Renames PDFs of journal papers, by performing a crossref search query to retrieve author, year, journal and title data.

searchtobibtex – Performs a crossref search query to retrieve bibtex data.

searchtobrowser – Performs a crossref search query to find digital object identifiers and opens up the resulting webpages.

<https://github.com/jdherman/bibby>

📖 README.md

bibby

Search for BibTeX citations from the command line, using the CrossRef API.

```
usage: ./bibby.sh options
```

Options:

- h Help
- f Format: choose one of {bib, rdf, ris, json, text}. Default is bib.
- q Search query (in quotes; required)
- n Number of results to include. Default 1.

<https://github.com/dotcs/doimgr>

README.md

doimgr

A command line tool using crossref.org's API to search *Digital object identifier (DOI)* and obtain formatted citations such as bibtex, apa, and a lot more

Finding *DOIs*

The first step consists of searching and finding a specific *DOI*.

To search for a specific article, you can use the syntax

```
python doimgr.py search "Stephen Hawking A Brief History of Time"
```

Create a citation using a *DOI*

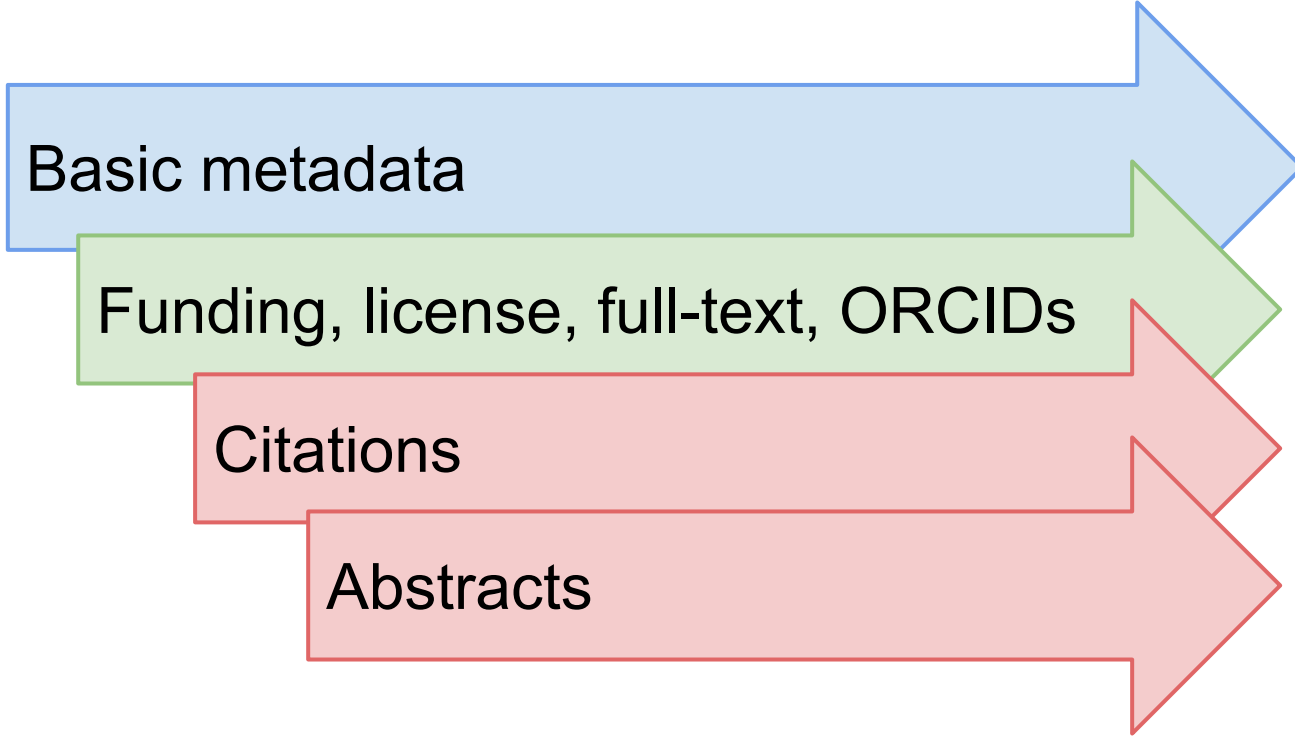
In the second step, the *DOI* can be used to create a citation using the command

```
python doimgr.py cite 10.2307/4612083
```

This will generate the following output

```
@article{Holyoke_1989, title={A Brief History of Time: From the Big Bang to Black Holes}, author={Stephen Hawking}, year=1989, publisher=Vintage Books, volume=1, number=1, pages=1-142}
```

Publishers



ref
cross

CrossRef REST API

api.crossref.org

DOI Content Negotiation

data.crossref.org

Please take our metadata and build something
amazing* with it!

* or just something quite good

kward@crossref.org

@karlward

api.crossref.org

data.crossref.org