Tell the Story of Data with Metrics

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What do you want to know?

Metrics tell a story about your data. The information you want will determine the kinds of metrics you seek.

How are people using it?
Have other studies built on it? Has it been extended? Used in other fields?

What are people saying about it?
Feedback on method? Sharing with colleagues? Is it getting attention?

Data Citations

Data citations are "citations included in the reference list of a publication that formally cite either the data that led to a research result or a data paper."[1]

Sharing data can increase citations to a paper by 9-69%[2]

How to find citations for data

Google Scholar

Benefits: Free, easy to use, catches mentions in full text (~10% of citations to data sets[3]).

Drawbacks: Uncertainty of sources, no filtering for self-citations, inability to improve results.

DATA CITATION INDEX

Benefits: More robust than Google Scholar, uses Web of Science.

Drawbacks: Costs, accessibility, notably favors physical/medical sciences.[4]

[CITATION] Journal subscription costs-FOIs to UK universities
S Lawson, B Meghreblian, M Brook - Figshare. doi, 2014
Cited by 3   Related articles   Cite   Save

Journal subscription costs-FOIs to UK universities
☐ Search within citing articles

Opening the Black Box of Scholarly Communication Funding: A Public Data Infrastructure for Financial Flows in Academic Publishing?
S Lawson, J Gray, M Mauri - Available at SSRN, 2015 - papers.ssrn.com
Abstract:" Public access to publicly funded research" has been one of the rallying calls of the global open access movement. Governments and public institutions around the world have mandated that publications supported by public funding sources should be publicly
Cited by 4   Related articles   All 5 versions   Cite   Save

[HTML] Journal subscription expenditure of UK higher education institutions
S Lawson, B Meghreblian - F1000Research, 2014 - ncbi.nlm.nih.gov
Abstract The academic libraries of higher education institutions (HEIs) pay significant amounts of money each year for access to academic journals. The amounts paid are often not transparent especially when it comes to knowing how much is paid to specific
Cited by 3   Related articles   All 9 versions   Cite   Save   More

Finding citation counts for a dataset in Google Scholar.

Figshare: a universal repository for academic resource sharing?
M Thelwall, K Kousha, GE Gorman - Online Information Review, 2016 - emeraldinsight.com
Purpose A number of subject-orientated and general websites have emerged to host academic resources. It is important to evaluate the uptake of such services in order to decide which depositing strategies are effective and should be encouraged. Design/methodology/
Related articles   All 4 versions   Cite   Save

Alternative Metrics

Altmetrics "assess the "societal" impact of research data to provide a more complete picture of research uptake".[1] Some altmetrics have been shown to predict citations (Mendeley readers, downloads); others show attention and interest (news, blog mentions, social media).[5]

How to find altmetrics for data

ImpactStory
(Free for individuals, works best for items w/DOI.)

Journal subscription costs - FOIs to UK universities
2015
624
🐦 Tweets (599)
G+ Google+ posts (11)
🔶 Blog posts (10)
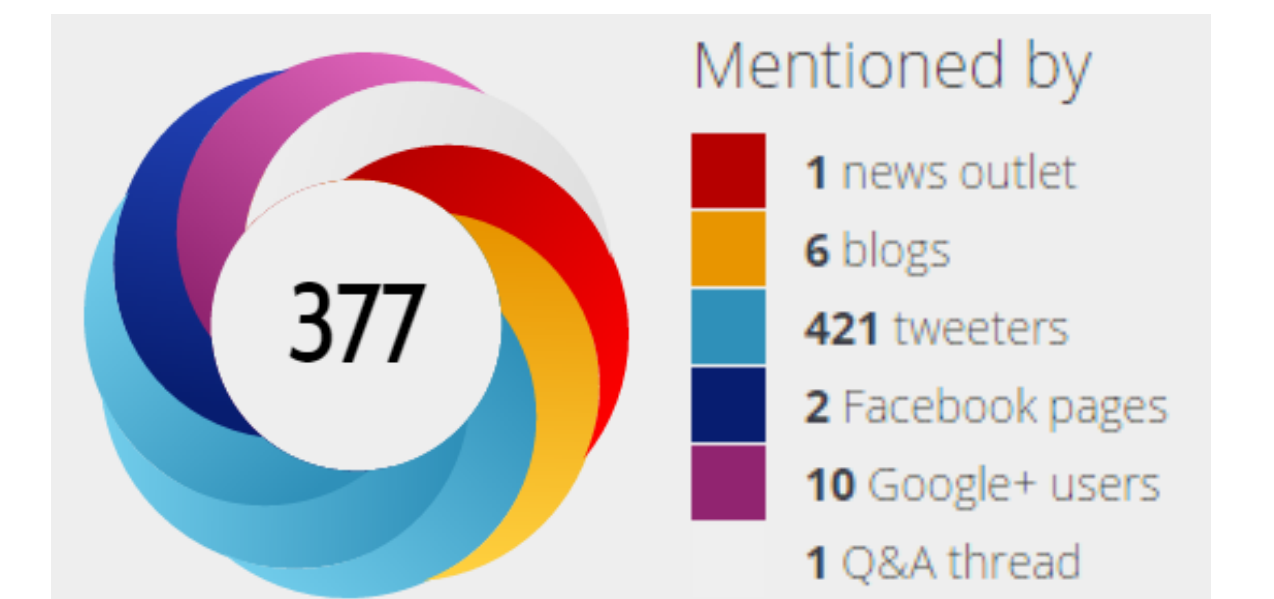f Facebook pages (2)
💬 Q&A post mentions (1)
📰 News mentions (1)

Altmetric
(Best for items w/DOI, limited data shown in free version, subscriptions available for institutions.)

Mentioned by
377
1 news outlet
6 blogs
421 tweeters
2 Facebook pages
10 Google+ users
1 Q&A thread

PlumX
(Works without DOI, but only captures for those w/ institutional subscription.)

USAGE	13621	MENTIONS	1	SOCIAL MEDIA	738
Views	12247	Blog Mentions	1	Tweets	601
Downloads	1299			Shares, Likes & Comments	98
Clicks	75			+1s	38
				Scores	1

Altmetrics for the dataset: Lawson, Stuart; Meghreblian, Ben; Brook, Michelle (2015): Journal subscription costs - FOIs to UK universities. doi: 10.6084/m9.figshare.1186832.v23

Altmetrics can add context on CVs, grants, tenure portfolios, & more. For some examples, visit **pitt.libguides.com/altmetrics/usecases**

Good metrics rely on good infrastructure & stewardship!

To improve citation counts and altmetrics:

- Get a **DOI** for your dataset at a repository like TROLLing, Dryad, or Figshare.
  - Provide good **data documentation**, including a preferred citation.
- Share data **openly** if possible to allow the greatest access with the lowest barriers for entry.
- **Talk** about your dataset on social media, blogs, conference posters, etc.
- Use metrics **wisely** and in **context**; downloads are not the same as citations which are not the same as news mentions.
  - Ask your **librarian** for help!

References

1 Peters, I., Kraker, P., Lex, E., Gumpenberger, C., & Gorraiz, J. (2015). Research Data Explored: Citations versus Altmetrics. **arxiv.org/abs/1501.03342**

2 Piwowar, H. A., & Vision, T. J. (2013). Data reuse and the open data citation advantage. PeerJ, 1, e175. **doi.org/10.7717/peerj.175**

3 Piwowar, H. A., Carlson, J. D., & Vision, T. J. (2011). Beginning to track 1000 datasets from public repositories into the published literature. Proceedings of the American Society for Information Science and Technology, 48(1), 1–4. **doi.org/10.1002/meet.2011.14504801337**

4 Torres-Salinas, D., Martín-Martín, A., & Fuente-Gutiérrez, E. (2014). Analysis of the coverage of the Data Citation Index – Thomson Reuters: disciplines, document types and repositories. Revista Española de Documentación Científica, 37(1), e036. Digital Libraries. **doi.org/10.3989/redc.2014.1.1114**

5 Costas, R., Zahedi, Z., & Wouters, P. (2015). Do "altmetrics" correlate with citations? Extensive comparison of altmetric indicators with citations from a multidisciplinary perspective. Journal of the Association for Information Science and Technology, 66(10), 2003–2019. **doi.org/10.1002/asi.23309**