Current State of Research Data Metrics

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We value data, so how do we evaluate data?
November 1999
Crossref founded

March 2013
Research Data Alliance (RDA) first plenary

December 2016
FAIR Guiding Principles

July 2018
COUNTER Code of Practice for Research Data

1996 - 2013
February 1996
Bermuda Principles

October 2010
Altmetrics Manifesto

February 2014
Joint Declaration of Data Citation Principles

April 2017
Initiative for Open Citations

November 2017
Scholix

Open data metrics milestones
Data are complicated
Data usage
Are they comparable?
Are they comparable?

33174 views
6967 downloads

2,496 views
1,311 downloads

30 views
4 downloads
The COUNTER Code of Practice for Research Data

The Code of Practice for Research Data Usage Metrics standardizes the generation and distribution of usage metrics for research data, enabling for the first time the consistent and credible reporting of research data usage.

COUNTER welcomes input and feedback from the community on this first iteration, so that it can be further developed and refined.

A downloadable PDF is now available in the download section below.
Data Usage Initiatives

RDA Data Usage Metrics WG
https://rd-alliance.org/groups/data-usage-metrics-wg

Make Data Count
makedatacount.org
Data citation
Data citation examples
a) An article cites a dataset, b) a dataset is derived from two other datasets, c) subsets of a dataset are generated.
Joint Declaration Of Data Citation Principles
A Scholix Link Information Package

The package contains information about the two objects, and information about the nature of the link and the link package itself.
ESIP Introduces New Data and Software Citation Guidelines Aimed at Making Earth Science Research FAIR

Quantifying the impact of public omics data.

Perez-Riverol Y1, Zorin A1, Dass G1, Vu MT1, Xu P2, Glont M1, Vizcaíno JA1, Jarnuczak AF1, Petryszak R1, Ping P3, Hermjakob H1
These counts are not yet data metrics
How do we get there?
Step 1: Participation

Support community initiatives around normalized data citation & data usage

Build on successes instead of reinventing the wheel
Step 2: Transparent Infrastructure

Infrastructure needs to be open
Numbers need to be transparent and standardized
Step 3: Bibliometrics Principles

We don’t know what is meaningful for data yet.

We must not default to impact factor/ h-index.
Curation ≠ peer review

Evaluation of data quality / scientific merit is not in numbers
Step 5: Community Agreement

Metrics change behavior

We can’t be prescriptive to researchers
Get Involved

**Benchmark** counts & promote best practices for data usage and data citation

**Join** the conversation and present use cases

**Collaborate** with broader research stakeholders to build open data metrics
Open Data Metrics

Lighting the Fire

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