

### Data Citation "First Principles" (CODATA-ICSTI, 2013)

Status of data	Data citations should be accorded the same importance in the scholarly record as the citation of other objects.
Attribution	Citations should facilitate giving credit and legal attribution to all parties responsible for those data.
Persistence	Citations should be as durable as the cited objects.
Access	Citations should facilitate access both to the data themselves and to such associated documentation as are necessary for both humans and machines to make informed use of the referenced data.
Discovery	Citations should support the discovery of data and their documentation.
Provenance	Citations should facilitate the establishment of provenance of data.
Granularity	Citations should support the finest-grained description necessary to identify the data.
Verifiability	Citations should contain information sufficient to identify the data unambiguously
Metadata Standards	Citations should employ accepted standards.
Flexibility	Citation methods should be sufficiently flexible to accommodate the variant practices among communities but should not differ so much that they compromise interoperability of data.

### Data Citation Elements (Kratz, 2013)

<b>Core</b>	
Creator(s)	To publicly credit the researchers who did the work
Date	Year of publication or when dataset was finalized
Title	To help the reader decide whether data is of interest to them
Publisher	Sometimes split into separate producer and distributor fields
Identifier	A permanent, unique ID such as a Digital Object Identifier (DOI) or Archival Resource Key (ARK)
<b>Common</b>	
Location	Web address to access the dataset; sometimes a redundancy for Identifier
Version	When datasets are continually updated
Access Date	Especially helpful when referencing dynamic data
Feature Name	May be sourced from a controlled vocabulary or some other description of the subset of the dataset
Verifier	Information used to make sure you have the right dataset

Handout from Konkiel S. (2013). Beyond Citations: New Metrics for Measuring the Impact of Research Data [presentation]. Digital Library Brown Bag Series, Indiana University, Bloomington, IN, USA.

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## **Resources**

### **Data Citation**

CODATA-ICSTI Task Group. (2013). Out of Cite, Out of Mind: The current state of practice, policy, and technology for the citation of data [report]. doi:10.2481/dsj.OSOM13-043

Kratz J. (2013). Data Citation Developments [blog post]. DataPub blog. Available at <http://datapub.cdlib.org/2013/10/11/data-citation-developments/>

Uhlir, P. F. (Rapporteur), & The National Research Council. (2012). *For attribution – developing data attribution and citation practices and standards: Summary of an international workshop*. Washington, DC: The National Academies Press. Retrieved June 19, 2013, from [www.nap.edu/catalog.php?record\\_id=13564](http://www.nap.edu/catalog.php?record_id=13564)

### **Altmetrics**

Priem, J., Taraborelli, D., Groth, P., & Neylon, C. (2010). *Alt-metrics: A manifesto*. Retrieved October 26, 2010, from <http://altmetrics.org/manifesto/>

Konkiel, Stacy. Tracking Citations and Altmetrics for Research Data: Challenges and Opportunities. *Bulletin of the American Society for Information Science and Technology* 39, no. 6 (2013): 27-32. [http://www.asis.org/Bulletin/Aug-13/AugSep13\\_Konkiel.html](http://www.asis.org/Bulletin/Aug-13/AugSep13_Konkiel.html)

Costas, R., Meijer, I., Zahedi, Z., & Wouters, P. (2013). *The Value of research data: Metrics for datasets from a cultural and technical point of view*. Copenhagen, Denmark. Knowledge Exchange. Retrieved June 19, 2013, from [www.knowledge-exchange.info/datametrics](http://www.knowledge-exchange.info/datametrics)

### **Repository & Curator Metrics**

Ingwersen, P., & Chavan, V. (2011). Indicators for the Data Usage Index (DUI): An incentive for publishing primary biodiversity data through global information infrastructure. *BMC Bioinformatics*, 12 (Suppl 15), S3. doi:10.1186/1471-2105-12-S15-S3.

Weber, N. M., Thomer, A. K., Mayernik, M. S., Dattore, B., Ji, Z., & Worley, S. (2013). Indicators of use in research data archives. *8th International Digital Curation Conference (IDCC)*. Amsterdam, The Netherlands.

### **Tracking Impact for Data**

*ImpactStory*

<http://impactstory.org/>

*IUScholarWorks Repository*

<https://scholarworks.iu.edu/dspace/>

*FigShare*

<http://figshare.com/>

*Dryad*

<http://datadryad.org/>

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