



80% of citations come from about 20% of the journals cited, identifying a core list for a local journal collection.
-- (Hye-Kyung Chung, 2007)

How do we find that 20%? By citation searching and using bibliometric measures.

Bibliometrics Defined:

- The branch of library science concerned with the application of mathematical and statistical analysis to bibliography; the statistical analysis of books, articles, or other publications. (Oxford English Dictionary Online)
- In other words...data about publications, or citation frequency.
- Scientometrics is the branch of information science concerned with the application of bibliometrics to the study of the spread of scientific ideas; the bibliometric analysis of science. (Oxford English Dictionary Online)

The University Library System has many databases that are helpful to you for Citation Searching:

- Web of Science (Cited by) (Cited Reference Search)
- Scopus (Citation Tracker) (Cited by)
- PsycINFO (Find Citation)
- Academic Search Premier (Cited References)(Find Similar Results)(Citation Matcher)
- JSTOR (Citation Locator)(Items Citing this Item)
- Google Scholar (Cited by)

Citation Tools and Measures:

- Citation Map (Web of Science)
- Citation Reports (Web of Science)
- Citation Tracker (Scopus)
- h-index (researchers impact) (Web of Science and Scopus)
- h-graph (depicts impact of a set of articles) (Scopus)

Databases that measure journal impact:

- Journal Citation Reports (Thomson Reuters; a standalone database that is also part of ISI Web of Knowledge)
- Scopus (Elsevier)

Journal Impact Tools and Measures

- Article Influence (uses Thomson Reuters citation data; In Journal Citation Reports or at <http://www.eigenfactor.org>)
- Eigenfactor (uses Thomson Reuters citation data; In Journal Citation Reports or at <http://www.eigenfactor.org>)
- Impact Factor (Thomson Reuters; in Journal Citation Reports)
- Journal Analyzer (uses Elsevier citation data; in Scopus)
- SNIP (uses Elsevier citation data; In Scopus or at <http://www.scimagojr.com/index.php>)
- SJR (uses Elsevier citation data; In Scopus or at <http://www.journalindicators.com/>)

Potentially, any database with citations could create bibliometric measures. Each vendor that offers bibliometric measures primarily uses its own unique data, journals, authority files, indexes, and subject categories.

There is currently no overarching tool across vendors.

Bibliography

Beck, S. E. (2008). In Manuel K. (Ed.), *Practical research methods for librarians and information professionals*. New York: Neal-Schuman Publishers.

Bergstrom, C. (2007). Eigenfactor: Measuring the value and prestige of scholarly journals. *College and Research Libraries News*, 68(5), 314-316. Retrieved from <http://www.ala.org/ala/mgrps/divs/acrl/publications/crlnews/2007/may/eigenfactor.cfm>.

Chen, C. (2004). Information visualization research: Citation and co-citation highlights. *IEEE Symposium on Information Visualization (InfoVis 2004)*, Austin, Texas. pp.r11-IEEE Symposium on Information Visualization. doi:<http://doi.ieeecomputersociety.org/10.1109/INFVIS.2004.38>

Chung, H. (2007). Evaluating academic journals using impact factor and local citation score. *The Journal of Academic Librarianship*, 33(3), 393-402. doi: 10.1016/j.acalib.2007.01.016

Garfield, E. (2006). The history and meaning of the journal impact factor. *JAMA: The Journal of the American Medical Association*, 295(1), 90-93. doi:10.1001/jama.295.1.90

Gonzalez-Pereira, B., Guerrero-Bote, V. & Moya-Anegon, F. (2009). The SJR indicator: A new indicator of journals' scientific prestige. Retrieved 2/4/2010, 2010, from <http://arxiv.org/abs/0912.4141>.

Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National Academy of Sciences of the United States of America*, 102(46), 16569-16572. doi:10.1073/pnas.0507655102

Moed, H. F. (2009). Measuring contextual citation impact of scientific journals. Retrieved 2/4/2010, 2010, from <http://arxiv.org/abs/0911.2632>.

Small, H. (1999). Visualizing science by citation mapping. *Journal of the American Society for Information Science*, 50(9), 799-813.