Open Access Journlas Quality – How to Measure It?

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Content

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Open Access Journals Quality

There is still a lot to be done to associate **OA and high quality**. One of the way to achieve this goal is to introduce a **objective and persuasive quality measurement** of OA.

Peer-review

- Traditional;
- Open (BMJ);
- Open and permissive (Biology Direct);
- Community (Journal of Interactive Media in Education);
- Permissive, post-publication commentary (PloS ONE);
- No peer review, post-publication commentary

Hodgkinson, *Open peer review and community peer review,* 2007. [Online]

Peer-review

- Subjective
- Detailed
- Requires time
- Measures content

Journal Impact Factor

Journal Impact Factor ⓘ

Cites in 2003 to articles published in:	2002	= 34	Number of articles published in:	2002	= 27
	2001	= 56		2001	= 29
	Sum:	90		Sum:	56
Calculation: Cites to recent articles	90	= **1.607**			
Number of recent articles	56				

Source: Journal Citation Reports [online]. The Thomson Corporation, 2005 (http://scientific.thomsonreuters.com/media/scpdf/jcr4_sem_0305.pdf .

Journal Impact Factor

- May be manipulative
- May be misused
- Measures popularity and prestige (how often cited)
- High coverage of databases
- Objective
- Fast

Web Impact Factor

Figure 2 : Calculation for Web Impact Factor

A= total link pages (all inlink and self-link pages)

D= number of web pages published in the web site which are indexed by the search engine, not all web pages available in the web site

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WIF= A/D = Web Impact Factor

Figure 3: Calculation for WIF revised to exclude self-links

A= total links to a web site (all inlink and self-link pages)

B= inlinks to the web site (this is a subset of A)

C= self-links and navigational links within the same web site

D= number of web pages published in the web site which are indexed by the search engine, not all web pages available in the web site

R-WIF= revised WIF (**B** / **D**)

Source: A. Noruzi, *The Web Impact Factor: a critical review, The Electronic Library,* 24, 2006. [Online] (http://eprints.rclis.org/archive/00005543/01/Web_Impact_Factors,_A_criti).

Web Impact Factor

- Measures popularity and presitge in cyberspace (how often linked to certain page)
- May be manipulative
- May be misused
- Objective
- Fast
- Accurate for certain moment

Usage Impact Factor

$$\mathrm{UIF}_j^y = \frac{R^y(A_j^{y-1} \cup A_j^{y-2})}{|A_j^{y-1} \cup A_j^{y-2}|}$$

Source: J. Bollen, H. van de Sompel, *Usage Impact Factor: the effects of sample characteristics on usage-based impact metrics,* 2006. [Online] (http://arxiv.org/PS_cache/cs/pdf/0610/0610154v2.pdf).

Usage Impact Factor

- Measures popularity, usefulness for academic community (how often read)
- May be manipulative
- May be misused
- Objective

Experimental OA indicators

1. Search engine Indicator I_{se}:

$$Ise = \frac{\text{Downloads by search engine access (D}se\text{)}}{\text{Downloads total (D}total\text{)}}$$

2. Backlink Indicator I_{bl}:

$$Ibl = \frac{\text{Downloads by backlink access (D}bl\text{)}}{\text{Downloads total (D}total\text{)}}$$

3. Direct access Indicator I_{da}:

$$Ida = \frac{\text{Downloads by direct access (D}da\text{)}}{\text{Downloads total (D}total\text{)}}$$

Source: P. Mayr, *Constructing experimental indicators for Open Access documents,* 2006[Online].

Conclusion

- Complete quality measurement should consist of: review (and commentaries), JIF, WIF, UIF (None of the factors should stand alone).
- The methods suitable for any kind of journal (not only OA)

Thank you for your attention!

Questions?

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