Web of Science: Journal Citation Reports
Web of Science help

• This is a guide to creating Journal Citation Reports using Web of Science.

• For an introductory guide to accessing and using Web of Science see *Web of Science: Finding journal articles and basic citation information* (WoS Guide 1).

• For more detailed help finding citation information see *Web of Science: Finding citation information* (WoS Guide 2).
Web of Science (WoS) provides access to Journal Citation Reports

Journal Citation Reports (JCR):

- Systematic, objective means to critically evaluate the world’s leading journals
- Quantitative tools for ranking, evaluating, categorizing and comparing journals
- Demonstrate most frequently cited journals in a field & highest impact journals
- Are divided into two fields: Science and Social Sciences
- Use citation trend data for 11,000 + journals from 25 million+ references indexed by WoS
- Publish data annually for the previous year.

Use them to find the most influential journals in your field and the best journals to be published in.
To discover journal impact click on ‘Journal Citation Reports’ (JCR) on the WoS home screen.

You now have a number of options including creating a JCR for a specific journal and finding journals with the most impact in a particular field.
To create a Journal Citation Report for a specific journal.....

....enter the name of the journal here and click on the search icon e.g. IEEE Transactions on Cybernetics.
You can now see a JCR for this journal

This report contains a range of information including:
- Bibliographic details for the journal
- Citation activity in the most recent full year (in this case 2017) to items published in the journal in the previous 2 years
- **Journal Impact Factor** calculation
- A list of the articles from the journal which have been cited
- Data summarizing contributions to the journal by country and organization.

Information on how to get more detail about a journal’s impact on next slide.

Click ‘Home’ to return to the Welcome screen.
For a more detailed overview of the journal’s impact.....

....scroll down the screen and click on ‘here’.

You can see historic data and additional measures of impact here (see later slides for an explanation of these measures).
To find the journals with most impact in a particular field, click on ‘Browse by Category’ on the Welcome screen.
Select ‘Journals by Rank’

...then click on ‘Select Categories’. Scroll through the list and choose the category (subject) you are interested in e.g. Computer Science: Cybernetics. Then click on ‘Submit’. Continued on next slide.

Select the year required, and either the Science (SCIE) or Social Sciences (SSCI) edition (or both).....
You can now see a list of journals

The report shows which journals have had the most impact in a given subject area based on data collected by Web of Science. This example shows influential journals for the subject of *Computer Science: Cybernetics*.

![Image of journal list]

Impact statistics are displayed here using a variety of measures such as *Eigenfactor Score*. More information later.
To find out the impact of individual journals in the list....

Here is the JCR for the selected journal, in this case *IEEE Transactions on Cybernetics*. ....click on a journal title.
Ways of measuring impact

- Total cites
- Journal Impact factor
- 5 year impact factor
- Immediacy Index
- Citable Items
- Cited half-life
- Eigenfactor Score
- Article Influence Score

More info on next slides >>>>>>
Ways of measuring impact continued...

**Total cites:** Total number of citations to the journal in a year.

**Journal Impact Factor:** Average number of times that articles from the journal published in the past two years have been cited in a year.

Calculated by dividing the number of citations in the year by the total number of articles published in the two previous years.

The citing articles may be articles published in the same journal. However, most citing works are from different journals, proceedings, or books indexed by Web of Science.
Ways of measuring impact continued…

5 year impact factor: Average number of times articles from the journal published in the past five years have been cited in a year. It is calculated by dividing the number of citations in a year by the total number of articles published in the five previous years.

Immediacy Index: Average number of times an article is cited in the year it is published and indicates how quickly articles in a journal are cited.

Calculated by dividing the number of citations to articles published in a given year by the number of articles published in that year. Useful for comparing journals specializing in cutting-edge research.

Citable items: Total number of articles in the journal in a year.
**Cited half-life:** The median age of the articles that were cited by other journals during the JCR year. Half of a journal's cited articles were published more recently than the cited half-life and half before.

The Cited Half-life measures all of the cites earned by a publication (across all cited years) during the JCR year. To calculate this score all the citations in a JCR year are sorted by publication-year-of-cited-item and then split directly in half: cites to younger cited item years (more recently published); and cites to older cited item years (less recently published). The cited half-life is where the split occurs. If a publication’s cited half-life is 4.6, this means that half the citations it earned were to items published 4.6 or fewer years ago and half were to items published longer ago than that.

For example, in JCR 2003, the journal *Food Biotechnology* has a citing half-life of 9.0. That means that 50% of all articles cited by articles in *Food Biotechnology* in 2003 were published between 1995 and 2003 (inclusive).

Only journals that publish 100 or more cited references have a citing half-life. A higher or lower cited half-life does not imply any particular value for a journal, but figures may be useful to assist in collection management. The Cited Half-life provides context for the “shelf life” of items published in a publication (how long do they continue to be cited) and the “timeliness” of those items (how soon after publication do they begin earning most of the cites that they will ever earn).
Ways of measuring impact continued…

Eigenfactor Score: Calculation is based on the number of times articles from the journal published in the past five years have been cited in the year, but it also considers which journals have contributed these citations so that highly cited journals will influence the network more than lesser cited journals.

References from one article in a journal to another article from the same journal are removed, so that Eigenfactor Scores are not influenced by journal self-citation.
Ways of measuring impact continued…

**Article Influence Score**: determines the average influence of a journal's articles over the first five years after publication.

It is calculated by dividing a journal’s *Eigenfactor Score* by the number of articles in the journal, so that it is a ratio of a journal’s citation influence to the size of the journal’s article contribution over a period of five years.

The mean *Article Influence Score* is 1.00. A score greater than 1.00 indicates that each article in the journal has above-average influence. A score less than 1.00 indicates that each article in the journal has below-average influence.
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