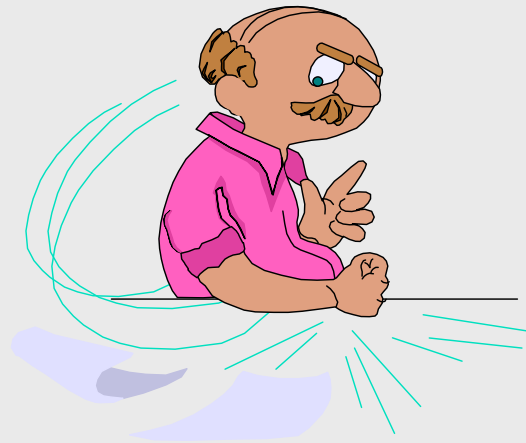
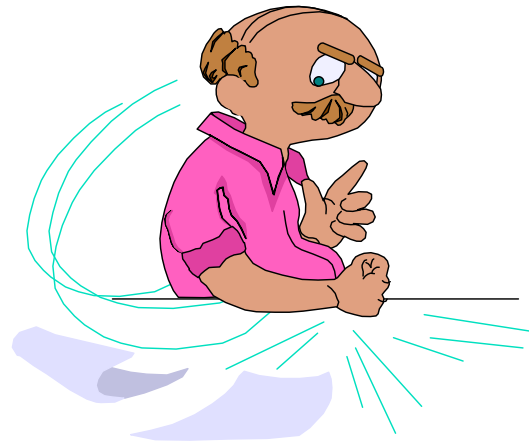


Assessing the influence of scientific journals



The influence of scientific journals

- **“Influence” means**
 - » Importance
 - » Prestige
 - » Impact
 - » Usefulness
 - » ...
- **Among scientific journals we see “pecking orders” based on their “influence”.**



Assessing the influence of scientific journals: why?

- **Authors need to select journals to publish their articles.**
- **Librarians / managers of information centres must select or deselect journals in the larger framework of “collection development”.**
- **Science and personnel management requires assessment of the influence of a scientific author; indirectly, they can more easily assess the influence (prestige) of the journals publishing his/her articles.**
- **...**

Assessing the influence of scientific journals: methods (Part 1)

- **Opinion of experts and users**
- **Measurement of usage frequency**
 - » observations of usage of journals in hard copy
 - » investigation of automatically collected usage statistics of electronic versions of journals

Assessing the influence of scientific journals: methods (Part 2)

- Indicators based on citation analysis, published in *Journal Citation Reports*, produced by the *Institute for Scientific Information (ISI)*
 - » The number of received citations during 1 year
 - » The *Impact Factor*
 - » ...
- ...

Assessing the influence of scientific journals: *Journal Citation Reports*

- **You can learn about JCR by using a tutorial through the Internet:**

<http://scientific.thomsonreuters.com/tutorials/jcrweb/>

[accessed 2008]

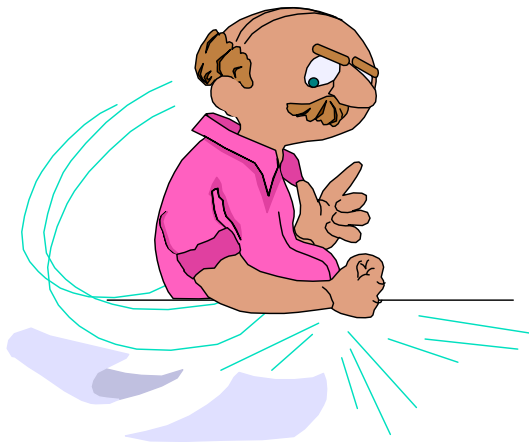
Assessing the influence of journals: the definition of the *Impact Factor*

The *Impact Factor* by *ISI* of a journal in a particular year

=

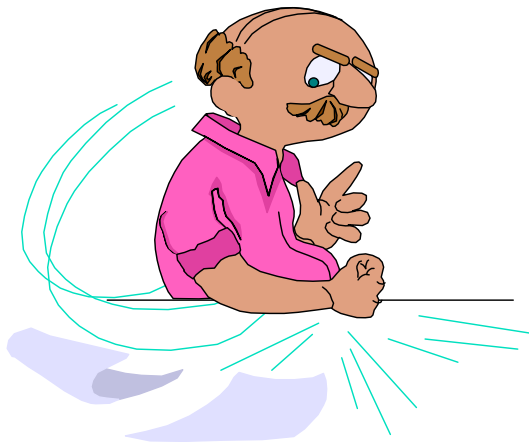
the number of citations found by ISI in that year
to articles published in that journal in the previous 2 years

the number of articles published in that journal
in the same 2 years



Assessing the influence of journals: the meaning of the *Impact Factor*

The *Impact Factor* by *ISI* of a journal in a particular year reflects the importance of an *average article* in that journal (in a particular year).



?? Question ??

**What is arbitrary in the definition of the Impact Factor?
What is a consequence of the choice made?**



Assessing the influence of journals: advantages of the *ISI* indicators

The indicators produced and published by *ISI* to assess the influence of a scientific journals offer several advantages. They are

- **published by *ISI* on microfiche, since 1996 on CD-ROM, since 1999 through the WWW (and earlier in print with the printed *ISI Citation Indexes*)**
- **more objective than the opinion of experts**
- **easy and cheap to use, when access is available**
- **widely used**



Assessing the influence of journals: shortcomings of the *Impact Factor* (1)

- **The *Impact Factor* has a bias favouring journals in scientific fields**
 - » with short half-life periods of citation,
 - » in which journal articles are often cited in other articles.
- **Only for about 4000 journals a value is listed by the *ISI*, while many others also have non-zero value.**
- **Citation data in the *ISI* database are not free of errors.**
- **The value observed for a journal can fluctuate significantly from year to year.**

Assessing the influence of journals: shortcomings of the *Impact Factor* (2)

- **The meaning of the *Impact Factor* is not well understood by many decision makers or policy makers.**
- **Review journals that include only review articles receive many citations and thus obtain a high *Impact Factor*, but this does not reflect impact of new research findings.**
- **Research journals that include also some review articles can obtain a higher *Impact Factor*, but this does not reflect impact of the research papers/articles only.**

Assessing the influence of journals: shortcomings of the *Impact Factor* (3)

- **The *Impact Factor* can only exist after a few years of the publication of a new journal, when enough data have been collected for the calculation; a consequence is that new journals can simply not have an *Impact Factor*, so that it takes a few years before they can appear in lists and rankings.**
- **Access to the *ISI Journal Citation Reports* (that give the values for the *Impact Factor*) is not free of charge.**

?? Question ??

**How can an author use citation data
in deciding to which journal
to submit an article?**



!! Task - Assignment !!

Read:

Amin, M., and Mabe, M.

Impact factors: use and abuse. [online]

Perspectives in Publishing, No.1, October 2000.

Available from:

<http://www.elsevier.com/homepage/about/ita/editors/perspectives1.pdf>



!! Question - Task - Assignment !!

**Prepare an answer to:
“How can a librarian use citation data
in selecting and/or deselecting journals?”**



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