Module 1: Introduction to Open Access

Topics/ Units

- Your knowledge & Experience of Open Access
- Scholarly Communication Process
- Open Access: History and Developments
- Rights and Licenses
- Advocacy for Open Access
- Open Access Research Impacts

Tuesday 28th May 2024

Session 4

UNIT OBJECTIVES

Objectives of Scholarly Communication

- This unit briefly discusses the emergence of the open citation databases for text mining and data mining of open access literature.

Learning Outcomes

After going through this topic the participants are expected to be able to:

- Describe the process of evaluation of research in national and international contexts;
- Identify the tools used for evaluation of research;
- Explain the advantages and disadvantages of different evaluation metrics;
- Use emerging evaluation metrics to explain OA research impact.

AREAS OF FOCUS

- Metrics
- Emerging Indicators (H-Index and Derivatives)
- Open Citation Databases

Metrics

- Citation databases help in measuring effectiveness, scientific productivity and impact of research literature.
- Because bibliometric indicators are based on evidence of usability of published literature – while cited literature are better used by the fellow researchers or successors, uncited literature is often unnoticed by the researchers.
- Thus, bibliometric indicators help in ranking scholarly journals, or identifying core journals, and making other similar productivity measurements

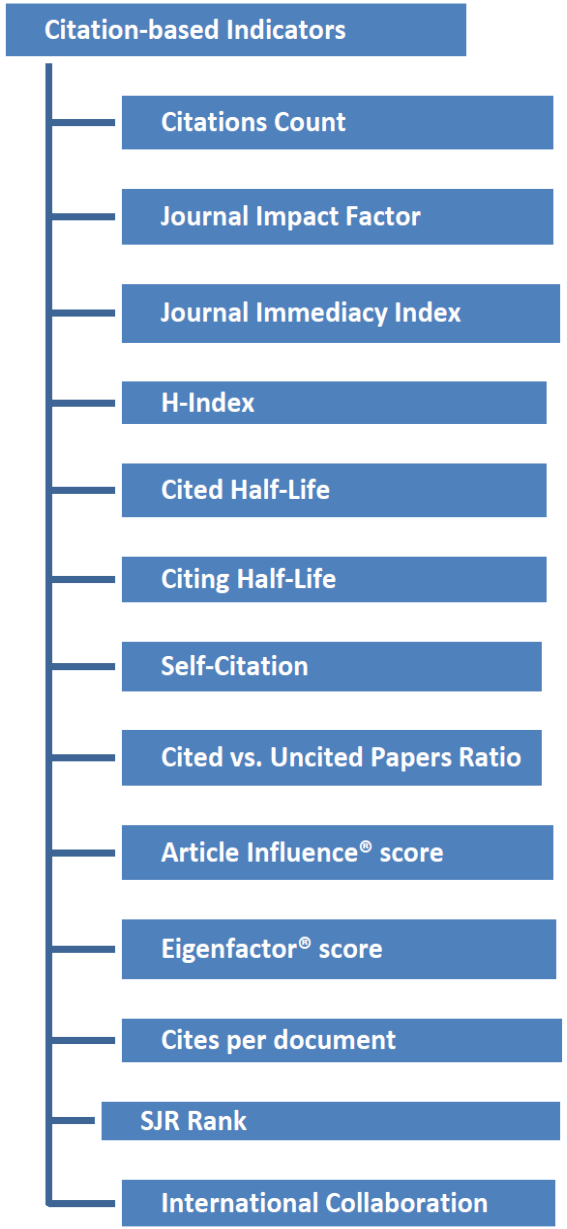
Metrics

Dimensions of Research Evaluation

Activity: *Review the terms in the file on pp. 57-58*

Activity: *Review the applications of Scientometrics and Bibliometrics in Research Assessment*

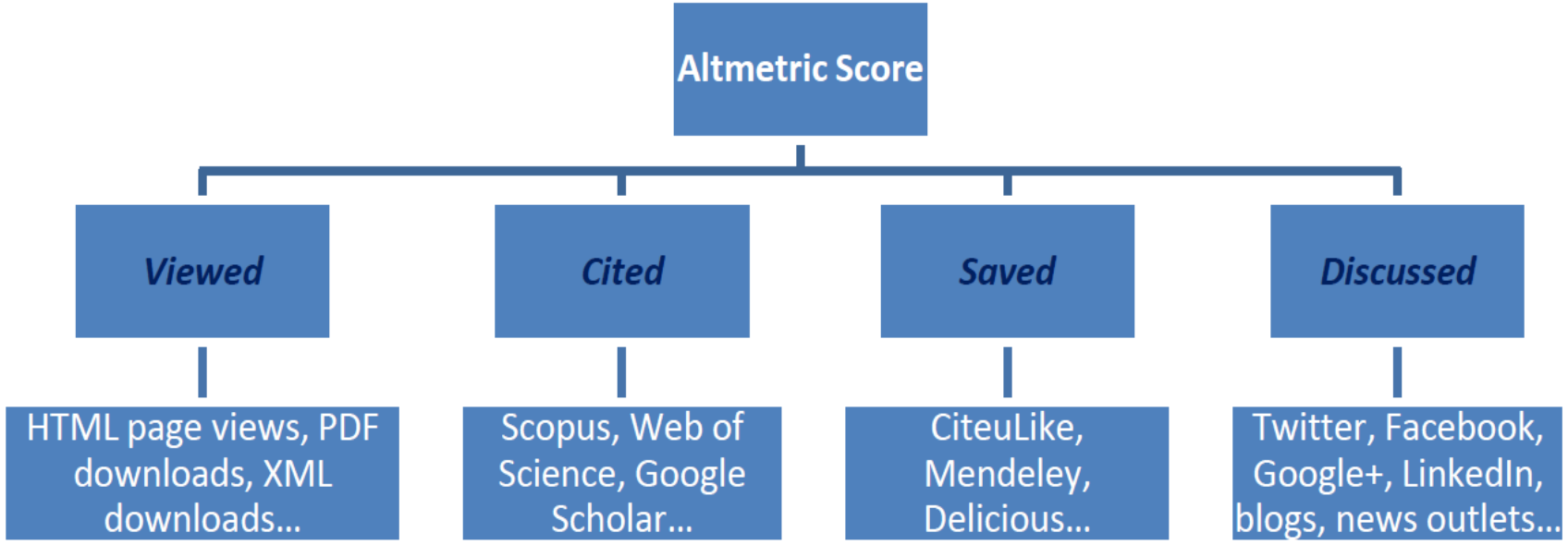
Common Bibliometric Indicators



- **Activity:** What do you make of these citation indicators? Pp. 60
- **Activity:** Visit the Ranking Web of World Repositories – http://repositories.webometrics.info what do you make of it?
- **Activity:** Study the methodology used – Visit http://repositories.webometrics.info/en/Methodology does it make sense to you? See Text Box 5.1: Methodology

Article Level Metrics (Altmetrics)

Deriving an Altmetric Score



Activity: *Review the terms in the file on pp. 57-58*

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Metrics

Emerging Indicators (H-Index and Derivatives)

- The Journal Citation Reports (JCR) is derived from the Web of Science
- JCR combines the Science Citation Index Expanded (SCI-E) and Social Science Citation Index (SSCI)
- JCR can only provide evaluation metrics based on overall journals' performance
- JCR failed to measure performance of individual papers and individual authors.
- The necessity of measuring scholarly impact of individual researchers led to the development of the H-Index by Physicist Jorge E. Hirsch
- The H-Index measures scholarly impact of individual researchers, and is the largest number h such that h publications have at least h citations. For example an H-Index value 6 denotes 6 publications have at least 6 citations each.
- An author H-Index can also be obtained for a journal, an affiliating institution, a research group.

Metrics

H-Index

An author H-Index can also be obtained for a journal, an affiliating institution, a research group

Activity: *in groups study a Google Scholar Public Profile of a researcher of your own – then that of your institution – then identify the different information details displayed – and other functions of the application that you would explore – could you encourage researchers in your institutions to open Google Scholar profiles?*

Metrics

Publish or Perish

- The Publish or Perish (POP) Software -
- POP is a freely downloadable software for personal non-profit use - used for author impact analysis.
- The software fetches bibliographic information of papers written by specified author from the Google Scholar search engine and presents different author citations metrics such as h-index, g-index, cites per paper, hc-index (the contemporary h-index), citations count for each paper, cumulative citations count, publishing years (i.e., productive years of a scientist), etc. Similarly, this software can also be used for journal impact analysis with similar citation metrics.

Metrics

Open Citation Databases

- The Open Citations project (OpCit is a conceptual framework for publishing bibliographic and data citations as linked open data within Open Citations Corpus (OCC).
- OpCit gathers citation data from OAI compliant open archives such as arXiv.org and PubMed Central for “reference linking and citation analysis for open archives”.
- Its citation-based linked open data are gathered in a central database called ‘Citebase’ for citation analysis and data mining.

Activity: *in groups study other freely available online portals that derive different indicators for comparative impact analysis of authors, journals, institutions, and countries – see pp. 66. – what metrics does each of these applications support?*

Metrics

Activity: *Homework – pp. 68-70 – then review the Glossary of terms*