White Paper on Citation Analysis for Promotion & Tenure

NJIT Librarians
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see also: [P&T Cited Reference Search Procedures](#)

In support of a faculty member's dossier for tenure and/or promotion, the Provost's office requests a report from the librarians on the impact of the publication record, as evidenced by a citation analysis. When time allows, the subject liaison librarian will share the completed citation analysis report with the candidate for their inspection before submitting the document to the Provost's office. After this, the librarian will submit the completed report to the Provost's office and copy the candidate.

Scopus and Web of Science are the two most prominent index, abstract, and citation analysis databases in science, technology, engineering, mathematics (STEM), and medicine, with additional but less extensive coverage of social sciences, arts, and humanities. In disciplines that are not well covered by these tools, supplementary sources may be needed to provide a snapshot of the scholar's impact.

Candidates are encouraged to obtain an [ORCID](#) and to consult with the librarians several months in advance of candidacy for help with their publication and documentation strategy in preparation for review. Furthermore, it is in the candidate's best interest to evaluate and revise their Scopus, Web of Science, and Google Scholar author profiles several months in advance of the promotion and tenure process: articles are often missing or mis-attributed in Scopus and Web of Science, and it can take these databases 4-6 weeks to update articles and profiles.

NJIT Librarians use Scopus, Web of Science, and Google Scholar

Scopus and Web of Science often provide different citation counts because they draw from different publication lists. For this reason, citation counts from both are provided. The h-index is calculated from citation counts provided on the report rather than using the h-index automatically generated by Scopus and Web of Science, as the auto-generated reports often miss publications or include incorrectly attributed publications.

Google Scholar uses different methods to provide citation counts for publications. Therefore, citation counts and the h-index provided by Google Scholar are not considered as a direct comparison to the Scopus and Web of Science h-indexes.

Humanities, History, and HCAD Disciplines

The nature of research in the humanities, art, and design disciplines is different from that in science and technology in a number of fundamental ways, and they are not well served by the popular citation-based instruments, both traditional and alternative. Gervits (2016) suggests there is a need to create a comprehensive model for research assessment in art, architecture,

and design, a model that takes into consideration multiple research outputs and various measures of impact.

Date of Report

Under normal circumstances, if a report has been done within 45 days, a new report will not be created, because the degree of change within this time period is usually minimal. The report is dated and represents the scholar's impact as of that date.

Summary of Tools with Citation Search Feature

Primary Tools

Scopus is a comprehensive abstract and citation database from Elsevier. It covers peer-reviewed literature in science, technology, medicine, social sciences, and the arts and humanities. It offers tools for tracking research trends, author impact, and institutional performance. See Scopus's [content policy and selection](#) for details and the [Scopus source list](#) for the titles indexed in the platform.

Web of Science (Core Collection) is a citation database from Clarivate. It covers leading scholarly journals, books, and proceedings in the sciences, social sciences, and arts and humanities disciplines. See Web of Science's [Editorial Selection Process](#) for details and the [list of journals indexed by Web of Science](#).

Google Scholar is a free search engine that uses Google's web-crawling methods to index full-text and metadata of nearly all scholarly literature regardless of quality. Types of sources indexed include peer-reviewed journals and books, conference papers, abstracts, preprints, and other scholarly literature, but Google Scholar sources and citation counts have not gone through the quality control provided by Scopus and Web of Science.

Comparing Primary Citation Analysis Tools

In a literature review (Moed et al., 2016), scholars found that Google Scholar, Scopus, and Web of Science each have particular coverage strengths in areas such as science and medicine. Still, all showed significant weaknesses in covering social sciences and humanities sources, and demonstrated an English-language bias. Refer also to Sember, et al. (2010) for a comparison, Gervits (2016), and Gervits (2024) on non-STEM citation analysis in the [Bibliography](#) at the end of this paper.

The [Research Guide for Faculty on Citation Analysis](#) and the [HCAD Guide on Citation Analysis provide additional information on these resources](#).

Some Additional Citation Analysis Tools

Astrophysics Data System (ADS) is a digital library portal for researchers in astronomy and physics, operated by the Smithsonian Astrophysical Observatory (SAO) under a NASA grant.

SciFinder-n is a research discovery tool that allows access to a wide variety of research disciplines, focused in chemistry, biochemistry, chemical engineering, materials sciences, physics, environmental science, and other chemistry-adjacent fields.

Bibliography and Further Reading

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