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Indexing of Journals and Indices of Publications

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Abstract

Journal indexes are indicators toward the quality of a journal. Authors, researchers, and the audience need some criteria to judge which literature they need to read or which journal they need to send their article to. Journal indexes help the respective groups to make this decision. From Index Medicus to Web of Science, journal indexes use different criteria to judge the quality of a journal or an article. Figures like impact factor and CiteScore also rank journals and articles based on various criteria so that the audience and authors can make their pick. Author indices like h-index and ResearchGate score aid in comparing scientific work done by authors and researchers. Indexes of journals, publications, and authors therefore offer a classification of medical literature from which the best can be chosen depending on the requirements in their respective fields.

Keywords
- author
- database
- index
- indexing
- publication

Introduction

Scientometrics is the subject that deals with indices that point toward the impact created by articles, authors, or journals in medical literature. Citations garnered by an article, author, or journal are the cornerstone for calculation of all indexes.

Once an author has written a good-quality manuscript, the first question that comes to mind is: "Which journal should I send it to?" Journal index is probably the most important criterion that is sought by most researchers to make this selection. So all authors and researchers should have a fair idea about how journals are indexed and the relevance of indexing.

Journal Indexing

Journal index usually means listing rank of journals classified based on subject, discipline, region of publication, and so on. The index of a journal talks about its quality, reputation among peers, range of reach, and impact it has on authors and readers. Indexed journals are considered to be of better scientific quality than nonindexed journals. Ranking of any journal is generally measured based on the number of abstracting and indexing databases (A&Is) that have listed the journal. Journals get more visibility, accessibility, and readership by getting their publication indexed in as many databases as possible. These indexes can also be used by both authors and readers to access studies and data in their areas of interest.

There are some confusing terminologies that are closely related to journal indexing agencies. They are clarified here for better understanding:

- *Indexing databases:* These databases contain citations and information about articles, such as abstracts. The full text may be available in another database or may need to be requested. An example of an indexing database is Scopus.
- *Bibliographic databases:* These databases provide indexing and abstracting services, and can help users identify high-impact research. Examples of bibliographic databases include Web of Science.

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- *Library databases:* These databases search for published and academic resources, including articles in journals, newspapers, and magazines. They are better sources to search academic material from as they exactly search for what you are looking for. An example of a library database is U.S. National Library of Medicine (NLM).
- *Digital libraries:* Digital libraries are organized and provide a thorough understanding of the information available on a topic. They are efficient for academic research because all the information is accessible. Example: Cochrane.
- *Repositories:* Repositories include content that is not in library databases as well. It is a computer system that stores digital material for use in a library.
- *Aggregators:* Aggregators collect information from multiple providers and combine them into one brand. Example: EBSCO.
- *Scholarly search engines:* These search engines use computer algorithms to search the internet for Web sites that match keywords. They are good for finding background information or information from authoritative sources, but they may not be the best for academic research. Search results depend on keywords entered, and may not always be relevant.
- *Digital Object Identifier (DOI):* A DOI is a unique identifier for an article. Crossref is a leading DOI registration agency for journals.

Requirements/advantages of publishing in an indexed journal include the following:

- The National Medical Council has mandated that only articles that are published in indexed journals would be considered for teaching experience purposes (►**Table 1**).[1]
- Rising importance of publication of articles in the academic profile of applicants for posts in academic institutions.
- Publication of articles in indexed journals helps in meeting the requirements generated by promotion vacancies, opportunities for graduation, and look out for grants.
- Publishing articles in indexed journals improves credibility and visibility of an author's work.

Index Medicus (IM) was the first recognized medical journal indexing agency in 1879. It is one of the most comprehensive indexes in medical literature even today. The first citation index was, however, introduced in 1960 by the Institute for Scientific Information (ISI) headed by Eugene Garfield. The Science Citation Index (SCI) came in later. The first automated citation indexing was brought out by CiteSeer in 1997.

The most important indexing agencies include the following:

- *Web of science:* Clarivate has established this abstract and citation indexing service. Six component citation indexes across specialties form its core. It gives access to multiple databases containing approximately a billion searchable citations across almost 250 disciplines. It allows for comprehensive outlook into subspecialties in a specific field. It is a subscription-based access index. Its components include the Science Citation Index (SCI), *Science Citation Index Expanded* (SCIE), the *Emerging Sources Citation Index* (ESCI), and the *Conference Proceedings Citation Index* (CPCI)
  - *SCI:* Published by the Institute for Scientific Information, SCI was the first citation index to come into vogue. It measures scientific performance by correlating article performance with citation counts. The SCI is part of a larger group called SCIE, which includes more than 8,000 journals across 174 disciplines.[2] Restrictions are that the criterion for indexing is very rigorous and it is a subscription-based access.
  - *ESCI:* It includes 24 quality criteria, namely International Standard Serial Number (ISSN) number, appropriate journal title, web address, content access by the Web of Science, peer review policy, contact details of editorial/production team, scholarly content, English titles/abstract, citations in Roman script, clarity of language, defined publication frequency, functional Web site, ethics statement, editorial/author affiliation details, editorial board composition, adherence to stated journal's policy, the peer review process, content relevance, grant support details, consistent with research integrity best practices, author distribution, and appropriate literature citation.
  - *SCIE:* Here the journals that meet both the quality criteria and the impact criteria (significance of journal content, comparative citation analysis, and citation analysis of authors/editorial members) are listed. SCIE lists only journals of higher quality with a higher impact.
- *IM:* This index has been introduced by the U.S. NLM. It is the most popular and trusted index among medical journal articles. IM was based on the print version of medical journal's article indexes that were published between 1879 and 2004. After 2004, following computerization, the name of the index was changed to MEDLARS and later became a part of MEDLINE.
- *SJR:* This index uses the number of citations to measure the influence of journals and also looks at the source journals from where the citations have arrived.[3] It is depicted by a numeric value calculated using the number of average weighted citations in Scopus indexed journals for a document in the journal published in the year across a period of three previous years. Credibility of the citing journals is also taken into account. The SJR offers another version to the impact factor (IF) wherein weighted average citations for a document across 2 years are taken better known as *CitesperDoc(2y)*.
- *Index Copernicus:* It is an online database of scientists' profiles, research institutions, journals, and projects. It is operated by IC International and has assessment tools to track the impact of scientific works along with traditional indexing of scientific publications. It is also one of the lesser used indices.[4]
- *Indian Citation Index (ICI):* This is a platform that measures performance of Indian research articles. It was launched in

2009 and covers more than 800 journals on topics including medical research published from the country.[5]
- *SCImago Journal Rank (SJR)*: This index has a complex calculation method and only journals indexed in Scopus are authorized to get this ranking.[6]

Important search engines include the following:

- *PubMed:* This is a free search engine that helps searches from NLM literature resources (MEDLINE, PubMed Central [PMC], Bookshelf). PubMed was established by the NLM and it deals in life sciences and biomedical research. This consists of citations from journals from MEDLINE and articles indexed with Medical Subject Headings (MeSH), and includes data of funding and genetic studies.
  Emtree and MeSH are both hierarchical controlled vocabularies used in health sciences. Emtree is a more comprehensive thesaurus for biomedical research than MeSH, with more up-to-date terminology, a better design, and more preferred terms and synonyms.
  MEDLINE is freely accessible via PubMed. MEDLINE contains records from approximately 5,600 published journals.[7] PMC is the second significant component that has full-text archives of articles from journals in NLM. Bookshelf, the third component, comprises full-text archiving in a wider areas like books, databases, and other documents that are related to biomedical, health, as well as life sciences. It is the largest index for biomedical publications.
- *Google scholar:* Introduced by Google in 2004, it is a very popular and free alternative data source that focuses on academic articles and patents. Most of the citations provided are scholarly. It is a crawler-based search engine and is the world's largest academic search engine with over 380 million records. It searches individual articles and not entire journals. It helps in finding relevant scholarly content on the web across the globe.

Repository

- *PMC:* It is a digital repository that archives open access full-text articles. It is freely accessible and searchable. PubMed collects articles from PMC. If authors want to be included in PubMed search, an application to PMC could be the easiest and quickest way to go about it. Indexing can be initiated to PMC once 25 peer-reviewed articles have been published in a journal.
- *National Science Library:* India has its own government-owned library where all journals are reposited and archived. It includes reports of scientific research performed in the country whether in published or unpublished forms. The library also provides access of its knowledge bank to authors, researchers, and scientists across the country.[8]

Databases

- *Embase (Excerpta Medica Database):* This is published by Elsevier and contains 8,500 biomedical journals although it focuses more on information about drugs.[9]
- *Scopus:* Brought out by Elsevier again, it is one of the largest databases for abstract and citation in peer-reviewed literature (scientific journals, books, and conference proceedings).[10] It gives information on journal metrics, provides h-index, citation impacts like CiteScore metrics, SJR, and Source Normalized Impact per Paper (SNIP). Embase mainly focuses on full-text indexing of biomedical content, while Scopus focuses on abstracts and citations, enabling navigation of the published literature. Scopus is a subscription-access index. It also has various tools that can track, analyze, and stimulate research in addition to providing various matrices.
- *MEDLINE:* It is a prominent bibliographic database that has approximately 25 million references in journal articles. It is owned by the U.S. NLM.
- *DOAJ (Directory of Open access Journals):* This is a database created by a nonprofit organization managed by Infrastructure Services for Open Access (IS4OA).[11] Every journal usually aspires to get into this online directory in its initial journey itself. It is a trusted index that uses various scholarly aggregators as data source. It makes all content of open-access journals freely available. Improving visibility and thus reputation, better accessibility, enhanced usage, and impact due to the presence of quality peer-reviewed, scholarly research articles in journals across the globe are listed as its main goals. It is 100% independent and relies on voluntary donations of supporters. It does not receive grants or funding from any other source.
  With more than 12,000 journal members, more than a million visitors every month, along with regularly updating the list of journal metadata, DOAJ is a powerful platform for global journal awareness.
- *Ovid:* This database, which is a branch of Wolters Kluwer, covers clinical medicine and pharmacology in addition to other related branches.
- *IndMED:* Another India-specific database, it contains the list of all medical journals of the country and is an Indian Council of Medical Research (ICMR) funded project. The portal of full-text articles (medIND) from select Indian medical journals indexed in IndMED is an important feature in this database.[12]

Predatory journals: A large study identified 66 radiology journals from 27 publishers from the updated version of the original Beall's list. Of these, 31 claims of indexing in Google Scholar, COPE, MEDLINE, Scopus, DOAJ, and ICMJE were present, out of which 22 could be verified and others were fake mimickers (►**Table 2**). This is a problem in indexing that needs to be addressed urgently. Many journals claim the indexing that is not actually there and should be verified. Those not in the list are mainly predatory journals that authors should be vary of.

Journal Metrices

- *IF:* This is the characteristic metric that many researchers and journals accept as relating to the quality of a journal.[13] It is considered an indirect indication of the importance of

a journal among its many peers. IF is, however, provided only to journals that are indexed with Thomson Reuters Journal Citation Reports.[14]

The usual calculation of IF is the number of citations garnered in the present year divided by the number of publications in the previous 2 years. The citation includes all citations to the journal as a whole for all types of articles, while the denominator includes only reviews, original articles, case reports, and proceedings papers. The denominator excludes editorials, small opinion essays, biographical articles, interviews, letters, reprints, and other minor nonscholarly works.[15] There is also a 5-year IF that is calculated based on the number of citations in a year, with the denominator being previous 5 years' articles.

However, there are a few issues while using IF. These include difficulties while handling other language databases, modes of collection of citations, algorithms used by IF to calculate the factor, relative importance to journals providing citations and their online availability, preference to certain article types, and negative citations. It also needs to be clarified whether they account for publication lags, other related subject journals, and bias toward influence from journal editors.[16]

Fundamental subjects gain more citations than superspecialized subjects that have limited readership, thus creating bias in calculation of the IF. Short letters receive immediate citations for about 2 years, whereas review articles receive longer-term citations, resulting in higher IF. Hence, journals publishing letters and case reports have a greater impact but short cited half-life, which is reverse in case of review articles. The numerator and denominator used for the calculation of IF can mislead the result. The numerator includes all types of articles, but the inclusion criteria for the denominator are limited. Editorials and letters to editor are not considered in the denominator for the calculation of IF. Hence, the numerator becomes greater and the denominator becomes lesser, leading to exaggerated IF.

- *CiteScore:* This metric was introduced by Elsevier in 2016. It is, however, available only for journals in Scopus. CiteScore is a ratio that depicts citations of the past 4 years, with the denominator comprising articles of the previous 4 years.[17]
- *h-5 index:* Provided by Google Scholar, it is similar in calculation to the h-index. "It is the largest number h such that h articles published in the last five completed years have at least h citations each. A major limitation of this index is that the metrics is only available for the top 20 journals."[18]
- *Article Influence:* It is another measure of the quality of an article wherein there is a quantification of the average influence of the article over a period of five years following its publication. It is calculated by the ratio of the Eigenfactor score of the journal to the number of articles in the journal.

As seen above, there are quite a few indexation agencies for journals to choose from. Each agency uses a different calculation factor and criteria for selection. The journals have to weigh their own considerations before making the choice. Whether to choose high-impact journals alone or to go to databases or indexing agencies like IM, Medline, or PubMed is a matter of debate.

Since indexing by a reputed agency guarantees enhanced reputation for a journal, every editor of a journal considers getting the journal indexed as his or her primary responsibility. There is a time duration by which a new journal can apply for indexing after starting its publication process. It is usually at least 2 years as determined by most agencies like SCOPUS. Registering for DOIs of all articles is foremost among the requirements before applying for indexing applications. So, applying for DOIs should start very early for new journals.

It is easier to get into academic search engines like Google scholar, Sematic scholar, Dimensions, Lens, CORE, and Crossref. Getting indexed in dedicated medical indexing databases, called A&Is, is difficult. A&Is of a specific subject have stringent criteria for entry.

The criteria that the indexing agencies look at mandatorily while indexing a journal are that they should have an ISSN, DOIs, established publishing schedules, copyright policy, and basic metadata of the article.[19]

Some other basic requirements for indexing include stating the journal editors' full names and affiliations, information about journal editorial policies such as the display of peer-review policy and ethical statement, publishing professionalization, including the articles' readability and quality of production, and long-term digital preservation service archiving their articles.

These criteria are set so that the uniformity and reputability of various indexes are assured. Therefore, it goes without saying that journals with higher indexes are more trustworthy and reputed among researchers.

The technical standards of the journal are the most important criteria looked at. The indexing agencies use web crawlers or machine-readable formats to continuously evaluate articles published in journals before indexing the journals.[20]

It is also important to note that the criteria for indexing are different for different agencies. Keep updating the above information on the journal Web site so that agencies can see them whenever they review. If you fail an indexing test once, do not get disheartened. You can apply as many times as you want and to multiple agencies. Once you meet the criteria and have good-quality indexing, it is just a hand's breadth away.

Author Indexes

Author indices are citation-related metrics that measure the impact of the articles published by an individual author over a period. Different indices look at different aspects of the publications by individual researchers and use various statistical parameters to provide a number to them that can convey the impact efficiently.

Many factors like distribution of research grants and appointment to academic positions rely on these indexes.

They differ from journal indexes in that they are based on individual publications and not on in which journal the articles are published. Certain journal indices can, however, be superimposed on author indices like the Eigenfactor and author IF.

Steps to Get an Author Index

1. To get an author index, registering at Google Scholar or ResearchGate are two common options. Personal or institutional profile needs to be set up in these online sites, which then help in associating the author's articles with his or her profile. This then makes it easier to index a researcher's work. Once a profile is made, affiliations, contact information, and publications can be added to the profile.
2. Many institutions have institutional repositories of their own. The researchers affiliated to the institute can deposit their published articles in these repositories. Uploading articles to these repositories when permitted by the publisher of the repository can lead to better visibility and indexing of the author.
3. Assigning persistent identifiers like DOIs or Handles to articles enable Google Scholar and such other sites to identify and index the author's articles.
4. Ensure that all the published articles have good metadata including title, authors, abstract, keywords, and affiliations for search engines to identify them easily and accurately.
5. Publishing in good-quality journals and indexed articles help a great deal.
6. Optimizing the Web sites, either personal or institutional, where the articles are uploaded is a must for yielding better visibility and citations. The full text of articles needs to be easily accessible for this action to take place successfully.
7. Articles can also be shared on academic networks, authorized social media sites, and other relevant platforms to increase their visibility. The more the researcher's articles are cited and referenced by other authors, the higher the author's index.

The common author indices include the following:

- *"h-index":* Introduced by Jorge E. Hirsch, this index helps us understand the quality of research articles authored by an individual researcher. The h-index considers the number of publications and citations an article has garnered. It is akin to IF or CiteScore for a journal when it comes to individual authors. It is calculated by first arranging the articles published in the descending order based on the number of citations. The position at which the number of publications is greater than or equal to the position is considered the h-index of the author.
  Example: If an author has 6 publications A, B, C, D, E, and F with 10 (position 1), 8 (position 2), 5 (position 3), 4 (position 4), 3 (position 5), and 2 (position 6) citations, respectively, the *h*-index is considered as 4 as the article at the fourth position has 4 citations.[21] To put it simply, to have an h-index of 4, an author has to have four publications, each receiving at least four citations.
  It measures both the productivity and impact of the published work of an author. An author's h-index is likely to be higher in Google Scholar as compared with SCI, because Google Scholar is likely to have more journals counted for citations.
  The main drawbacks of the h-index are that it does not account for very highly cited papers, and it does not account for the career span of an author. Also, the profile of the citation curve is not a criterion and whether the author has prolifically published in one field is also not evident. It also does not denote the author position in the author list or relative contribution of the author for an article. Therefore, various other indices have been devised though the h-index still continues to be the most popular index.
  Individual h-index divides the standard h-index by the average number of authors in the respective articles that contribute to the h-index to reduce the effects of co-authorship.
  Contemporary h-index is concerned with the research output of active and inactive researchers. It accounts for citations received by recent articles, predominantly $m =$ h-index/number of years the academician has been active since the first published paper.
- *g-index:* It is a variant of the h-index that gives credit for the most highly cited papers of an author. If for h-index *h* papers have to get *h* citations, then for g-index, the top *g* papers have to get at least g^2 citations.
- *i-10 index* indicates the number of publications of an author that has garnered at least 10 citations. It was introduced as a part of Google Scholar in 2011.[22]
- *Author-level Eigenfactor:* It regards authors as separate nodes in a network of citations. The score of an author is calculated based on his or her centrality in the network.[23] It creates a ranking list of authors in Social Science Research Network (SSRN).
- *ResearchGate Score:* This author-level index was introduced by ResearchGate in 2012.[24] Its calculation policy is not revealed but probably takes journal IF and feedback from readers and peers; it also has a negative correlation with centrality.
- *Author impact factor (AIF):* It is akin to the IF of journals but applied to authors.[25] The AIF for an author in a particular year is the average number of citations garnered by papers published in that year to the number of papers published by the author in a period of years before that particular year. This index helps capture the trends of the impact of the author through his or her publications over a wide range in his or her academic career.

Various other author indices like iCite, m-index, e-index, s-index, w-index, L-index, o-index, and c-index exist although they are rarely used in the academic parlance.

Article-level indexes: These include Altmetrics, PlumX, field citation ratio, and relative citation ratio.

- *Altimetrics:* It summarizes the attention a particular article has received in various media like Facebook, Twitter,

Table 1 How to search for indexed journals[26]

Sl. no.	Name of indexing agency	Web site link	What to search for
1	Directory of Open Access Journals	https://doaj.org	Title of journal International Standard Serial Number (ISSN) of journal
2	Embase	https://www.elsevier.com/solutions/embase-biomedical-research/embase-coverage-and-content	Journal title or ISSN
3	MEDLINE	https://www.ncbi.nlm.nih.gov/nlmcatalog	Current indexing status
4	PubMed Central (PMC)	https://www.ncbi.nlm.nih.gov/pmc/journals	Journal title Participation status
5	Science Citation Index Expanded	https://mjl.clarivate.com/home	Journal title or ISSN
6	Scopus	https://www.scopus.com/sources	Title or ISSN

Table 2 Present publication requirements of NMC[26]

Sl. no.	Requirements	Source acceptable
1	Journals indexed by agencies	Citation index, Directory of Open Access Journals, Embase, MEDLINE, PubMed Central, and Science Citation Index Expanded
2	Type of articles	Original articles, meta-analysis, systematic reviews, and case series
3	Authorship order	First author, second author, third author, and corresponding author
4	Number of publications	One for Associate Professor Three for Professor

Wikipedia, Blogs, and news channels, and is known as the Altmetric Attention Score. They are particularly notified on the online versions of the article.
- *PlumX:* It provides data regarding citations, usage, captures, mentions, and social media hits that the article has gained. It is a plain and simple total of all above numbers.

The software "Publish or Perish" calculates to provide a variety of outputs. One such metric is the Original Research Publication Index, which has been calculated as follows:

ORPI = PubMed original articles/number of citable items + (no. of citations – self citation)/time depth of publication track.

The future of indexing agencies for medical journals may involve the following:

- *Standardizing biomedical literature:* The International Committee of Medical Journal Editors (ICMJE) has developed recommendations to establish uniform standards for biomedical literature. This needs to be followed in spirit and in practice.
- *Indexing more journals:* The Journal Citation Reports should include all journals in its repertoire.
- *Creating a "Make in India" indexing agency:* This could help promote indigenous research and reduce reliance on foreign journals.
- *Revitalizing initiatives:* Revitalizing initiatives like IndMed and medIND could enhance the visibility and accessibility of Indian medical research.

Conclusion

The life cycle of any research begins with an idea and ends in a scientific journal. Hence, it is the objective of every researcher that his or her article published in a journal should get wider accessibility. For this to happen, publishing in an indexed journal is important and hence the need for knowing the intricacies of indexing. Another significant aspect is that once a journal is indexed by a database, it is immediately available to all users across the globe and is a measure of its quality. Indexing helps students, researchers, scholars, and teachers to disseminate knowledge and get a wider audience, visibility, and readership.

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References

1 The Gazette of India. The Teachers Eligibility Qualifications in Medical Institutions Regulations. 2022. Accessed February 22, 2022 at: https://www.nmc.org.in/ActivitiWebClient/open/getDocument?path=/Documents/Public/Portal/NmcGazette/TEACHERS%20ELIGIBILITY%20QUALIFICATIONS.pdf
2 Yuh-Shan H. Science-citation index expanded. Scientometrics 2013;94:1297–1312
3 MEDLINE. MEDLINE Overview. Accessed March 17, 2023 at: https://www.nlm.nih.gov/medline/medline_overview.html
4 Elsevier. Medical research. Accessed March 17, 2023 at: https://www.elsevier.com/solutions/embase-biomedical-research
5 Elsevier. Scopus fact sheet, 2022. Accessed March 17, 2023 at: https://www.elsevier.com/__data/assets/pdf_file/0017/114533/Scopus-fact-sheet-2022_WEB.pdf
6 DOAJ. About DOAJ. Accessed March 17, 2023 at: https://doaj.org/about/
7 Wikipedia. Index Copernicus. Accessed March 17, 2023 at: https://en.wikipedia.org/wiki/Index_Copernicus
8 Wikipedia. SCImago Journal Rank. Accessed March 18, 2023 at: https://en.wikipedia.org/wiki/SCImago_Journal_Rank
9 Wikipedia. National Science Library. Accessed March 18, 2023 at: https://en.wikipedia.org/wiki/National_Science_Library_(India)
10 India.gov.in. Website of Indexing of Indian Medical Journals (INDMED). Accessed March 18, 2023 at: https://www.india.gov.in/website-indexing-indian-medical-journals-indmed
11 Wikipedia. Indian Citation Index. Accessed January 27, 2016 at: https://www.en.wikipedia.org/wiki/Indian_Citation_Index
12 Fassoulaki A, Papilas K, Paraskeva A, Patris K. Impact factor bias and proposed adjustments for its determination. Acta Anaesthesiol Scand 2002;46(07):902–905
13 Clarivate. The Clarivate Analytics Impact Factor. Accessed December 9, 2021 at: https://clarivate.com/webofsciencegroup/essays/impact-factor/
14 Balhara YP. Publication: an essential step in research. Lung India 2011;28(04):324–325
15 Clarivate. Journal Citation Reports: Document Types Included in the Impact Factor Calculation. Accessed December 9, 2021 at: https://support.clarivate.com/ScientificandAcademicResearch/s/article/Journal-Citation-Reports-Document-Types-Included-in-the-Impact-Factor-Calculation?language=en_US
16 Baker DW. Introducing CiteScore: our journal's preferred citation index—moving beyond the impact factor. Jt Comm J Qual Patient Saf 2020;46(06):309–310
17 Falagas ME, Kouranos VD, Arencibia-Jorge R, Karageorgopoulos DE. Comparison of SCImago journal rank indicator with journal impact factor. FASEB J 2008;22(08):2623–2628
18 American University Washington, DC. Scholarly Research Impact Metrics. Accessed December 9, 2021 at: https://subjectguides.library.american.edu/c.php?g=175335&p=1154177
19 Padula D. Journal indexing: core standards and why they matter. 2019. Accessed August 22, 2019 at: https://blogs.lse.ac.uk/impactofsocialsciences/2019/08/22/journal-indexing-core-standards-and-why-they-matter
20 Wikipedia. Web crawler. Accessed on March 17, 2023 at: https://en.wikipedia.org/wiki/Web_crawler
21 Hirsch JE. An index to quantify an individual's scientific research output. Proc Natl Acad Sci U S A 2005;102(46):16569–16572
22 Connor J Google Scholar citations open to all. Google Scholar Blog; 2011. Accessed November 26, 2024 at: https://scholar.googleblog.com/2011/11/google-scholar-citations-open-to-all.html
23 West JD, Jensen MC, Dandrea RJ, Gordon GJ, Bergstrom CT. Author-level Eigenfactor metrics: evaluating the influence of authors, institutions, and countries within the social science research network community. J Am Soc Inf Sci Technol 2013;64(04):787–801
24 Professoren der nächsten Generation" | NZZ. Neue Zür Ztg 2020(in German)
25 Pan RK, Fortunato S. Author impact factor: tracking the dynamics of individual scientific impact. Sci Rep 2014;4:4880
26 Medical Council of India. List of Gazette Notifications. Accessed March 19, 2020 at: https://wwwmciindiaorg/ActivitiWebClient/open/getDocumentpath=/Documents/Public/Portal/Gazette/TEQ-17022019.pdf

