

# Indexing: The Heart and Soul of Quality Journal

*Sruthy C Babu*

*M.Phil Research Scholar, Christ University Bangalore, India*

## Abstract

*Research is a creative and systematic work undertaken to increase the stock of knowledge, including knowledge of humans, culture and society, and the use of this stock of knowledge to devise new applications. In research every researcher needs to follow certain set of rules and regulations to keep the quality of his/her work. Preparing properly structured research article is the primary thing here. Maintaining the ethics and quality while preparing and publishing an article is a must in research. Thus publishing one's article in a popular and standard journal is a task. Indexed journals are considered to be higher quality in comparison to any non-indexed journals. Indexing of a journal provides better visibility of the journal with a wider user. Being visible and accessible to larger people will cause better quality papers and results. This research article tries to create a proper understanding about indexing and the areas related to indexing. By establishing the idea of indexing it focuses on the purpose and benefits of indexing. This article also focuses on the major indexing agencies in the field and how they are doing indexing. One cannot complete the discussion of indexing without discussing the indexing parameters. By analyzing the concept of peer reviewing and its variants this article tries to prove the importance of indexing in general.*

**Key Words:** *indexing, citations, indexing agencies, indexing parameters, peer reviewing, open access journals.*

## Introduction

In research 'indexing' is a quality determining factor. Indexing is a similar concept like catalog, inventory, list, record or register. It is a reflection of the quality of a research journal. To make a journal authoritative source of information and to make it stand out from many other publications crowded in publishing space, journals need to show how authentic and truthful they are. Researchers should index their journals to show the visibility, readership, clarity and availability of their journals.

Indexing will always help a researcher to reach to better audience by showing the reliability of our research journal. In research publication, indexing plays a vital role. So each and every researcher must possess some knowledge about indexing a publication. To explore our field of study, to expose our new insights, we should understand the idea, history, types, purpose and benefits of indexing.

## Importance of Indexing

We use our index finger always to point out something. Just like that, indexing also put some light towards our area of research. Dictionaries define an index as a collection of information stored on a computer or on a set of cards in alphabetical order. Or it can be a list showing which page includes a name or subject. Index always acts as a signboard.

While discussing the history of indexing one should be careful about the history of publication also. Both are immensely interlinked. History of printing is associated with China and Egypt even before Gutenberg's invention of printing press. Even before the invention of all these, handwritten copies of literature's were circulated among people. But during those days no two manuscript were similar because of the differences of copywriters. Book index printing started around 1460, 20 years after the invention of modern printing. Even Bible concordances started around this period.

While going through the history of indexing we can't miss the names of some masters behind this. In 1737 Alexandr Cruden, the Scottish author and proofreader made the complete concordance to the Holy Scriptures. Dr. Samuel Johnson, the prominent English writer published his Dictionary of English Language in the year 1755. It is another landmark in the area of indexing. Dr Johnson's Dictionary is the very first index to English language.

Paul Otlet is another important figure in this field. Otlet, a Belgian author has developed The Universal Bibliographic Repertory in the year 1895. Otlet's role in Information Science is path breaking. He is one of the several masters who have been considered the father of Information Science because of his contributions to the field of documentation.

William Frederick Poole, an American bibliographer and librarian is a precursor to modern indexing. In 1848 he published his own 154 page index to periodical literature. While publishing this alphabetical index and other periodicals, he was just a student. Shepard's citations, named after Frank Shepard is a famous citatory used in United States legal research. In 1873 Shepard began publishing these lists in a series of books indexed to different jurisdictions.

Robert Busa, an Italian Jesuit priest is one of the pioneers in the usage of computers for linguistic and literary analysis. He made a work 'Index Thomisticus' on the basis of St. Thomas Aquinas' works. He could even surprise the founders of IBM using his talent.

Eugene Eli Garfield, famous American linguist is one of the founders of bibliometrics and sociometrics. He has an important role in the development of Science Citation Index, Journal Citation Reports etc. He founded the Institute for Scientific Information. He is responsible for many important innovative bibliographic products during his era.

The Index Society was started in the year 1877. The aim of the society was to create a general index of universal literature. The society of indexers started in 1957 which represents and trains professional book indexers. It is a professional society in London. It exists to promote indexing and the quality of indexing.

'Types of indexing' is another major area to be discussed along with the history and importance of indexing. Types can be of author, subject, place, phrases, chronological or concept centered. Even table of content is a kind of index. Citation index is a very important kind of index. It is a kind of bibliographic index.

Indexing and abstracting are two terms used together in research. Indexing assigns descriptors and other kinds of access points to documents. It helps us locate the needed information. It is indicative in nature. But abstracting is shortening or summarizing the actual information.

For faster learning and acknowledging we can depend on indexing. Indexing will help us to reach our main goal of being able to be accessible to a wider audience. Being accessible in turn will improve our work's reputation as a credible and reliable source of high quality data in the field. Index is a kind of reference list used for locating particular information. We can arrange things in an index alphabetically or chronologically. It will help us locate things easily without much bafflement. It ensures speed in finding things. For this purpose we should make our index simple and clear. If the index is a perfect one, cross checking things will be better.

The next major thing here is who will do this indexing? As an answer to this, we have a number of indexing agencies. Different indexing agencies follow different policies for this indexing procedure. Or we can say, most journal indexing agencies or journal indexing bodies have a procedure and certain rule and regulations to index any journal. If you are a publisher or the authorized person who wants to apply for indexing then you must read the instructions and regulation before applying the journal.

Many journal indexing agencies have certain rules like, Journal must have e-ISSN and P-ISSN, Journal must have at least 5 issues or at latest 1-3 years old, Journal must have at least 60 % foreign members in the editorial board etc. All Journal indexing agencies have an online journal submission form where the submitter needs to enter the information asked. The Journal indexing agencies take 10 to 180 days to evaluate the journal and approve for indexing. After indexing, it may send you a confirmation email.

We have a number of popular, most trusted and accepted indexing agencies to do the task of indexing in its perfection. Some of them are, Scopus, Ulrich's periodicals directory, ISI Web of Knowledge, Science Citation Index, OCLC, Google Scholar, Crossref, Chemical Abstracts Service, Biological Abstracts, BIOSIS, MIAR, ABDC, Index Copernicus and Bielefeld Academic Search Engine etc.

All these popular indexing agencies have their own policies regarding indexing a journals. To ensure the quality of the agencies, they always consider including and indexing better quality journals. To understand more about all these, we should make ourselves aware of the evaluation policies of the above mentioned indexing agencies along with the steps taken to have a journal to be indexed by any particular agency

Scopus is Elsevier's abstract and citation database launched in 2004, which is a very trusted indexing agency. It covers sources like book series, journals and trade journals. All journals covered in the Scopus database are reviewed each year to make sure high quality standards are maintained in them. Scopus has a clearly stated

selection policy and an internationally acclaimed board of selection experts. Their selection process is transparent and review board is independent. Scopus uses members with deep subject matter expertise to evaluate data on the basis of five categories. They are journal policy, content, journal standing, publishing regularity and online availability. The quality of content is supreme for Scopus. In addition to journals undergoing a rigorous evaluation and selection processes prior to acceptance into Scopus, they must also demonstrate the ability to maintain their quality status year over year. Once in a year Scopus analyzes the performance of all journals in the database.

Web of Science is an online subscription based scientific citation indexing service originally produced by the Institute for Scientific Information (ISI), later maintained by Clarivate Analytics that provides a comprehensive citation search. It is another famous indexing agency. It gives access to multiple databases that reference cross disciplinary research, which allows for in-depth exploration of specialized sub-fields within an academic or scientific discipline. When a journal is submitted for evaluation, Web of Science editors consider it for all applicable databases. Before submitting a journal for evaluation one should ensure that the publication publishes peer-reviewed content and it has an ISSN registered. It must include English-language bibliographic information and English-language cited references along with that. Journals that do not meet these minimum criteria will not be evaluated in Web of Science.

Google Scholar is another important indexing agency. It can improve the universal visibility and convenience of any content. They work with publishers of academic information to index peer-reviewed papers, theses, preprints, abstracts, and technical reports from all disciplines of research and make them searchable on Google and Google Scholar. Google Scholar includes many disciplines and sources like articles and technical reports from academic publishes, professional societies, preprint repositories and universities, and other scholarly organizations available across the Web. Google Scholar tries to level documents the way researchers do, weighing the full text of each document, where it was published, who it was written by, as well as how often and how recently it has been cited in other scholarly literature. Google scholar includes journals from Individual Authors, University Repositories and Journal Publishers.

While going through these different agencies involved in indexing, one can learn that even though they are different databases, they have some common features. All of them give vital importance to the quality of the journal primarily. Most of the agencies use internationally acclaimed and reputed board of selection experts to do the process of indexing. These experts continuously review and thus expand the popularity of the agency. They select the content that is relevant for and readable by an international audience.

All of them follow publication ethics against the malpractices happens in the area. All the agencies have Convincing and serious editorial policy. While selecting the content they prefer the academic contribution to the field in larger scale. Almost all the databases follow the policy of re-evaluation or de-selecting on a yearly basis. Underperforming journals after re-evaluation will suffer the consequences. These are the major similarities we can identify while understanding about the indexing agencies.

As we already mentioned, all these indexing agencies follow certain parameters on the assessing of the journals and articles. Indexing parameters are the basic tools or strategies used across the publishing industry to measure the performance of the journals and authors. Initially there weren't much number of parameters in the field of indexing. But now there are a range of different parameters are available. Examples of indexing parameters are: Impact Factor, Cite Score, h-index, g-index, i10-index, SNIP, SJR etc. All of these parameters have their own advantages and limitations. Some of them follow easy methods of calculation, some are difficult. Some of them have very wide scope, but some are limited in scope. Even though, these parameters determine the quality of the journals and articles to a large extend.

To determine an academic paper's suitability for publication usually journals submit them for peer reviewing. According to Elsevier "reviewers play a pivotal role in scholarly publishing. The peer review system exists to validate academic work, helps to improve the quality of published research, and increases networking possibilities within research communities. Despite criticisms, peer review is still the only widely accepted method for research validation and has continued successfully with relatively minor changes for some 350 years".

Scholarly peer review is the process of subjecting an author's scholarly work, research, or ideas to the scrutiny of others who are experts in the same field, before a paper describing this work is published in a journal, conference proceedings or as a book. The peer review helps the publisher that is, the editor-in-chief, the editorial board or the program committee, decide whether the work should be accepted, considered acceptable with revisions, or rejected.



Peer review requires a community of experts in a given field, who are qualified and able to perform reasonably impartial review. Impartial review, especially of work in less narrowly defined or inter-disciplinary fields may be difficult to accomplish, and the significance of an idea may never be widely appreciated among its contemporaries. Peer review is generally considered necessary to academic quality and is used in most major scholarly journals, but it by no means prevents publication of invalid research. Meta-research has identified weaknesses in common peer review practices, leading critics to argue for reform. Researchers within the fields of metascience work to produce such reform.

Peer review is of different types. Different journals follow different peer review methods. Each system has its own advantages and disadvantages. Often one type of review will be preferred by a subject community but there is an increasing call towards more transparency around the peer review process. In case of questions regarding the peer review model employed by the journal for which you have been invited to review, we should consult the journal's homepage or contact the editorial office directly.

Generally peer review is divided into open and closed peer review. Closed review is considered as old while comparing with the other. But closed review is the most popular one because of the types in it. Closed reviewing is generally divided into single blind peer reviewing, double blind peer reviewing, and triple blind peer reviewing.

In closed review method the chances of knowing each other of author/reviewer is limited. In single blind peer reviews the names of the reviewers are hidden from the author. This is the traditional method of reviewing and is the most common type. Here the reviewer anonymity allows for impartial decisions and the reviewers should not be influenced by the authors. In simple words, single-blind peer review means that the identity of the reviewer is anonymous, but the author's name and affiliation are on the paper. Plos One is an example for single blind peer reviewing journal.

In double blind peer review both the reviewer and the author are anonymous to each other. Author anonymity limits reviewer bias based on an author's gender, country of origin, academic status or previous publication history. Here articles written by prestigious or renowned authors are considered on the basis of the content of their papers, rather than their reputation. Springer and Research Ethics are journals following double blind peer review method.

In triple blind review method, reviewers are anonymous and the author's identity is unknown to both the reviewers and the editor. Articles are anonymized at the submission stage and are handled in such a way to minimize any potential bias towards the author(s). But the complexities involved with anonymizing articles/authors to this level are considerable. Here, not only are authors and reviewers blind to each other's identities but where editors are also blind to the identity of both. European Journal of Philosophy and Science Matters are the journals following triple blind review method.

Open peer review is an umbrella term for many different models aiming at greater transparency during and after the peer review process. The most common definition of open review is when both the reviewer and author are known to each other during the peer review process. Any scholarly review mechanism providing disclosure of author and referee identities to one another at any point during the peer review or publication process is known as open review.

A discussion regarding indexing will not be complete without the mention of open access publication. Open access refers to freely available, digital, online information. Open access scholarly literature is free of charge and often carries less restrictive copyright and licensing barriers than traditionally published works, for both the users and the authors. While Open access is a newer form of scholarly publishing, many OA journals comply with well-established peer-review processes and maintain high publishing standards. Open Access is fundamentally when publications are freely available online to all at no cost and with limited restrictions with regards reuse. The unrestricted distribution of research is especially important for authors (as their work gets seen by more people), readers (as they can access and build on the most recent work in the field) and funders (as the work they fund has broader impact by being able to reach a wider audience).

## Conclusion

Nowadays research and everything related to research hold a very vital part in academics and non academic areas of study. Research publication has got a very major role here. To have a proper understanding of the process of publication of articles in journals, one needs to have a thorough understanding of indexing and the areas connected to indexing, because indexing has a very important role in determining the quality of a journal.

The prestige of any journal is considered by how many abstracting and indexing services cover that journal. A citation index is a kind of bibliographic database, an index of citation between publications; allowing the user to easily establish which later documents, cite which earlier documents. Thus to have an understanding of indexing and indexing parameters are worthwhile.

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