

Librametrics to Webometrics

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ABSTRACT: *This paper covers the information about history of Librametrics, & Webometrics. These branches of Library Science metrics are directly related to measuring of knowledge. The concepts overlap each other and an attempt is made to discuss the terms in sequential, logical manner.*

Keywords: Librametrics, Webometrics

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1. Introduction

Over the last few decades the field of Library and Information Science (LIS) has developed several quantitative methods for investigation. As LIS is a widely interdisciplinary field, academics from various disciplines have played a part in the development of its methods. The suffix 'metrics' is "derived either from the Latin or Greek word "metricus" or "Metrikos" respectively, each meaning measurement". To date several different metric fields that deal with the development and application of measurement in the area of Information Science have emerged, namely: Bibliometrics, Scientometrics, Informetrics, Librametrics, Webometrics and more recent in, Altmetrics. The former definition emphasizes the informetric heritage of many bibliometric methods, the latter focuses on the value that webometrics could provide to the wider social sciences, reflecting a shift in webometrics over time from more theoretical studies to more applied studies, though retaining an emphasis on methods development.

2. Librametrics

Dr. Ranganathan S. R. (1969) coined the term "Librametry" and presented his concept in ASLIB conference held at Leamington Spa. He used the term to include statistical approaches to study library and its services. However, the practice of using quantitative method to measure information sources were made even before Dr. Ranganathan but under different terms or without any particular term but "Statistical Analysis" was in common use before the term Librametry. Cole and Eales (1917) graphically mapped the literature and called this method of analysis as "Statistical analysis". Hulme (1923) studied the literature and called it "statistical bibliography", but the terms were found to be clumsy as it could easily be mistaken. Later the term was coined as bibliometrics by Pritchard (1969).

Ranganathan used statistical methods, for example, to arrange the order of books in the stack room, putting the most frequently demanded books next to the entrance, and the least requested the further away. By this means he ensured that the Research Papers Abstract : The article traces the history of Librametrics, Bibliometrics, Scientometrics, Informetrics, Webometrics, Informetrics

and Altmetrics. These branches of Library Science metrics are directly related to measuring of knowledge. The concepts overlap each other and an attempt is made to discuss the terms in sequential, logical manner.

Library staff would have to walk the shortest distance possible to retrieve the most requested books. He also used Librametric methods for various other tasks; analyzing the user request, circulation and arrangement of books and periodicals; optimizing the workload and staff deployment; budget allocation; and even the physical planning of the libraries. Unfortunately the term Librametry has not been widely adopted in Library and Information Science. In 1999 Wilson made an observation on librametrics, for retaining librametrics in the field of LIS: There may be value in retaining the term 'librametrics' or 'librametry' for such studies not specifically analyzing literatures, or at least not specially directed to the goals of bibliometrics and of information retrieval. These include analysis of book circulation..., of library collection overlap..., of library acquisitions..., of fines policy..., and of shelf allocation... - frequency using optimization techniques from operations research.

3. Webometrics

We are living in the world of WEBS. Think about anything right from basic needs like shopping to financial transactions to education, virtually everything is moving on the web. Why the answer is straight forwarded. web service is accessible to everyone from anywhere.

Webometrics is (a) a set of quantitative techniques for tracking and evaluating the impact of web sites and online ideas and (b) the information science research field that developed these ideas. Webometric techniques include link analysis, web mention analysis, blog analysis and search engine evaluation, but from the perspective of digital library evaluation the main method is link analysis.

Webometrics currently provides a range of methods and software for various kinds of quantitative analyses of the web, and, despite initial concerns that web data would always be easily manipulated because they are not quality-controlled, the advocates of webometrics claim that it is useful both for studies of aspects of the web itself, such as hyper linking among academic websites, and studies of offline phenomena that might be reflected online.

4. Webometrics Measurement

Webometrics is a measurement of the world's academic and scientific research progress. In this system various universities researches and their development are noticed using the updates of the websites. Administrators and managers of these websites are making efforts to improve the ranking of these organizations according to their rating. On the other hand that is observed, there are not only academic universities are played role in research, various different companies and organizations are also participating in research and development. Therefore a new kind of ranking system is required to provide ranking for all the different kinds of organizations who are participating in Webomatrix.

The field really took off, however, with the introduction of the Web Impact Factor (WIF) metric to assess the impact of a website or other area of the web based upon the number of hyperlinks pointing to it. WIFs seemed to make sense because more useful or important areas of the web would presumably attract more hyperlinks than average. The logic of this metric was derived from the importance of citations in journal impact factors, but WIFs had the advantage that they could be easily calculated.

Evaluation of the website is divided into two phases, namely the technical evaluation using tools TAW and non-technical evaluation through direct observation using Webometrics success criteria.

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5. Webometrics Research Areas

The Google Scholar searches for webometrics and link analysis studies not citing webometrics produced articles mainly from computer science and sociology. Some were isolated studies but others formed coherent bodies of work.

Many different Web-related topics use link analysis but do not cite webometrics research. The topics include search engine ranking algorithms, Web information retrieval, question answering, link analysis, link mining, crawling, Web page classification, and spam filtering. . In addition, there is some computer science research into traditional library and information science topics like scholarly communication and collaborative knowledge building.

When is Webometrics most useful?

Web publication is easier and faster than publication in traditional scientific outlets, and researchers can publish ongoing results with little delay. In some disciplines plenty of their products aren't regularly published in journals (social sciences, humanities, applied fields, etc.) and therefore aren't as well-covered by bibliometrical databases as disciplines with a journal-publishing culture. Bibliometrics is also bound to have a poor coverage of multidisciplinary fields, because their outputs are published in various outlets and are often cited in different manners. In general, webometrics analysis gives better results in fields with standards and/or norms for web publishing, but the results might not be reliable in fields where a small number of research groups and their projects (databases, web portals and so on) have a disproportional web presence. Collaborations are often better caught in webometric analysis, since not all collaborative works have "official" outputs. Webometrics works better for smaller fields. It's harder to get a complete picture of large fields with current methods.

Last but not least: webometric analysis is usually faster and cheaper than bibliometric one.

6. Conclusion

In recent years Library and Information Science field has witnessed a large number of informetric studies where data was collected from particular subject area. Whatever extensions suggested by the researchers were not very popularly known to the profession. Because of the IT developments sufficient data can be derived for informetric analysis from the Web. As a result of wide scale interest in electronic information access and use facilitated by the Internet, info metric analysis can legitimately hope to derive new fundamental laws in the field in future.

The improvement of online existence is needed because the customer needs better information service. These improvements will be done to increase the site's ranking in the search engine index. One of measurement used in educational institutions is Webometrics.

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