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# The Evolution of Indexing and its Impact in the Research World

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Abstract: The indexing is one of the reliable resources in the research world, which is used to help the researched to ground their research in the area of study. The indexing is widely used in the research world. Through this article we are going to study the history of indexing right from the beginning in the 12<sup>th</sup> century the evidence of the use of index in Hebrew literature till 19<sup>th</sup> century where role of indexing and need for it was conceptualized by Dr Eugene Garfield and Associates.

**Keywords:** Indexing, Citation, History of Indexing

#### 1. Introduction

Indexing in a simple way is explained as a process in creating indexes for the creation of record collections. This allows the research scholar to conduct a controlled way of searching records of specific individuals and not getting lost in-between the hundreds and thousands of records, this also saves a great deal of time. In Indexing, researcher applies meaning to raw data by assigning key words or phrases. It also represents a number referring to a list of terms, definitions, topics etc. arranged in alphabetical order in order to efficiently guide the readers to the desired information within the content. In today's scenario the search is done online, so it is imperative that a journal is represented in the relevant online search system

## 2. History of Indexing

Finding of the first index is a difficult task because in the olden days the details in the books or catalogues were not evident and available. The credits to the invention of the index was always given to Shepard in 1873 but then Shapiro proved that legal citation index was published on 1743 in response we found out that the index was in Talmus two centuries back. When the evolution of index is tracked out it date backs to the 12<sup>th</sup> centuary.

A form of indexing was first found in Hebrew literature scripture in the 12th Century. In 18th century, the legal indexing was made popular by Shepard's citation. The Researchers started to follow indexing in the year 1950's, which lead to the development of indexing due to the research carried out during the World War II. In 1960, the first citation index for papers published in academic journals by the Eugene Garfields Institute for Scientific Information (ISI).

## 2.1 Hebrew Manuscripts

A form of indexing was first found in Hebrew literature scripture in the 12th Century. The author Bella Hass Weinberg in her paper 'Who invented the index?' investigates and points out that the history of Hebrew books and reference work is neglected in the western studies. She concludes and claims that the first form of citation indexes and concordance where in Hebrew and Latin languages.

(Hass Weinburg) But during the 10th century Masoretes a Hebrew scholar appears that he has compiled the list of words and arranged in order the alphabetical order for Hebrew Bible. The first step of indexing was first done in Bible to break them into chapters by Stephan Langdom during 1150 - 1228.

#### 2.2 First Printed Index

St Augustine's De arte praedicandi, the two edition are the oldest printed index by Fust and Schoeffer during the early 1460s. After St Augustine's index, in the editio princeps of Speculum vitae the first edit index appeared but we are not sure about ths date it was about the moral treatise discussing about the advantage and disadvantage of professions from the kings to the shepherd.

In the early years of printing the content page and index was not clearly distinguished but later around 1554 everyone started to understand the importance of indexing. The publisher also believed that index mentioned in the first page along with the title will draw the attention of the buyers and this could be a possible selling point.

In the year 1568 the first 'Index table' was done in alphabetical order. In the year 1570 'Index tabelarm' which list the maps in alphabetical order by Ortelius.

#### 2.3 The Legal Indexing

The 18th century produced some interesting index entries like magazines where all the essay, poetry, article, birth, death and marriage had a separate indexes.

The older and major citation index in to existence during the 18th century was the Shepard's Citations, which was started in 1873 to provide legal profession with a tool of searching legal decision and this was achieved by the listing the citations to precedents. This legal citation system provided a model for organizing an effective search tool called citation index.

#### 2.4 Need for Indexing

The three main factors lead to the development of indexing in 1950s, the first major factor was during the World War II the government was ready to spent huge amount of money

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into research and development. This subsequent increase of literature generated a need for indexing. The second factor, because of the growing number of researchers is different fields, the researchers where not aware or familiar with research works done in different subject disciplines in order to ground their research through an appropriate review of literature. The third reason for the development of indexing was computerization and the researchers believed that they have potential benefits for generating and compilation of data. Which gave them the hope for automation and they thought that this may hold the answer to eliminate completely the difficulties caused by the manual indexing. The need for a better way of managing information was the need of the hour during the 1950s which led to the development of indexing in a major way.

The founder of the Institute for Scientific Information (ISI) and a pioneer in the field of bibliometric, Dr Eugene Garfield was deeply involved in the research relating to generate index in mid 1950s to early 1960. Garfield's article on "Citation of Indexes for Science" was published on 1955, was the turning point in the way information scientists conceptualized the role of citation. In 1960 and 1962, Eugene Garfield and Associates developed two piolet project to text the efficiency of citations and was successful. Garfield believed, the researcher could immediately get a view of the approach taken by another scientist to support an idea or methodology based on the sources that the published writer had consulted and cited as pertinent in the bibliography. As retrieval terms, citations could function as well as keywords and descriptors that were thoughtfully assigned by a professional indexer. ("History of Citation Indexing - Web of Science Group")

#### 3. Conclusion

"Citations are an acknowledgement of intellectual debt." - Henry Small

Today indexing is considered is one of the cost effective way and the most reliable resources in tracing the development of an idea across the multitude of disciplines and this highly helps the researcher to ground their research through an appropriate review of literature. The research world needs to keep updating by creating and designing the indexing for the specific subject using the latest technology and manual efforts.

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