

Content Analysis Of Research Articles In American Journal Of Information Science And Technology

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I. INTRODUCTION

Bernard Berelson defined 'content analysis as a research technique for the objective, systematic, and quantitative description of the manifest content of the communication. In social science research, content analysis techniques are used' and also define "Content analysis is the objective qualitative and quantitative description of the content expressed in communication" (Berelson). Content analysis is an attempt to analyze the knowledge records of human experience, it is a means of studying all forms of communication, their form, and their underlying meaning. Content analysis is a systematic analysis and coding technique, describing books, journals, newspapers, and the like. Content can be analyzed to study the changing focus on a particular issue over the years. It helps in classifying and organizing unorganized data and gives them a scientific shape. In library and information science, content analysis is used for many activities such as 'indexing and abstracting', classification of user studies, and production of multiple documents regardless of their physical form, so that the user has easy access to their information source. It is a technique of research for systematic purposes and a quantitative description of the content of research data. It is also an attempt to convert symbolic behavior into scientific data. It is a tool for classifying and categorizing research data according to the purpose of the study. Various types of material documents and records, published or unpublished, can be subjected to content analysis. This study reports a content analysis based on Analysis of the American Journal of Information Science and Technology research output data from 2017 to 2022.

II. REVIEW OF LITERATURE

More and Motewar (2018) discussed the various features of 54 issues of Journal of Indian Library Association during 2016-2018. It suggests organized team research with feature-wise analysis, geographic distribution of authors, subject-wise analysis of articles and book reviews, and more. Part of their analysis was found to be useful in analyzing the data in the present work.

Davis (2012) analyzed the genesis and data collection methods of research articles published in three information systems journals between 2005 and 2007. A coding sheet was used to collect relevant data for content analysis. Most of the articles were written by several authors from the U.S. More than 80% of the papers published in JAMIA were funded compared to 40% for the other two magazines. A variety of statistical packages were used to analyze quantitative data, while coding was the most popular method for analyzing qualitative data. These journalies have published more mixed methodological approach studies than previous research in this area.

Sonwane, Shashank & Dandge, Satish (2017) Content analysis is rapidly declining for the empirical manipulation of communication processes. In these examples of experimental studies, systematic changes are made to the content and documented through content analysis, and the audience is observed for the effects of these changes. A specific role played by content analysis in organizing the accumulation of global recorded knowledge. Content analysis seems to have two general and major functions. The first is to provide a descriptive abstract of any document at a level and in a form that indicates what information is to be found in it. Another is to give guidelines for converting document content from one medium to another and reducing content for ease of bibliographic access.

III. OBJECTIVES OF THE STUDY

The purpose of this project is to evaluate the content of the open access electronic journals of American Journal of Information Science and Technology keeping in view the following objectives.

- Determine the issue-by-issue allocation of articles.
- To investigate the authorship pattern.
- Examine the distribution of articles by country.
- Research the length of journal papers.
- Determine the number of references.

IV. SCOPE & LIMITATION OF THE STUDY

Scope of study is restricted to the "American Journal of Information Science and Technology" published during

2017 to 2022. The papers presented in the Journal are analyzed using content analysis technique. The present study is limited to the total numbers of 61 papers published during 2017 to 2022.

V. METHODOLOGY

The research is qualitative research with a document analysis method. The document analysis method allows an in-depth analysis of sources containing written information about the target event or events (Yıldırım & Şimşek, 2018). The American Journal of Information Science and Technology is a well-known peer-reviewed open- access publication. For the current study, all issues of the journals were downloaded online at <https://www.sciencepublishinggroup.com/journal/index?journalid=526>. All of the papers are available online. After downloading the papers, data was manually collected. Following then, tabulation and important statistics such as percentage analysis were used. For the research, six volumes of the journal, totaling 51 issues, were obtained. A total of 123 papers were analyzed to acquire information such as the number of authors, page length, number of references, and so on, and then analyzed to conclude.

VI. ANALYSIS AND INTERPRETATION

1. Article distribution by topic

Table 1 depicts the distribution of papers in American Journal of Information Science and Technology by issue from 2017 to 2012.

Table 1: Article Distribution by Year Wise

Year	Article	Percentage
2017	2	3.22
2018	13	20.97
2019	12	19.36
2020	8	12.90
2021	15	24.19
2022	12	19.36
Total	62	100

Table 1 shows that the number of maximum articles in each volume 2 times published 12 (19.36%) . The largest number of articles published in 2021 15 (24.19 %) Only one issue of the first issue of 2017 can be published.

Table No. 2 Year-wise authorship pattern

Authorship pattern	2017	2018	2019	2020	2021	2022	Total	Percentage
Singal Author		4	5	1	8	1	19	30.65
Two Author	1	4	4	3	1	7	21	33.87
Three Author	1	2		1	3	2	9	14.52
Four Author		2	3	1	1	1	8	12.90
More than Four Authors		1		2	2	1	5	8.06
Total Articles	2	13	12	8	15	12	62	100

It was observed from Table 2 that, out of 62 publications, the vast majority of 20 (32.25%) of the publications were published by two authors followed by single authors 19 (30.65%), three authors publications 9 (14.52%), four authors publications 8 (12.90%) Furthermore, it was noted that more than four author publications only 6 (9.68%) publications.

Table No. 3 Country-wise distribution of articles

Country Name	Total	Percentage
Nigeria	13	20.97
Egypt	1	1.61
Saudi Arabia	2	3.23
Russia	1	1.61
Tanzania	2	3.23
India	6	9.68
Pakistan	1	1.61
Latvia	1	1.61
Japan	2	3.23
China	16	25.83
Switzerland	1	1.61

Sudan	2	3.23
Austria	1	1.61
Israel	1	1.61
Italy	1	1.61
Brazil	1	1.61
Ethiopia	1	1.61
France	2	3.23
Ghana	1	1.61
Azerbaijan	1	1.61
Spain	1	1.61
Jordan	1	1.61
Iran	1	1.61
Germany	1	1.61
Korea	1	1.61
Total Articles	62	100

From Table 3, it is clear that the country having the highest contribution of articles in AJIST is China (25.83%) and Nigeria (20.97%) is in the second position. The third number of articles was published in India (9.68%), and The fourth number of 2 articles (3.23%) in Saudi Arabia, Japan, Sudan, and France. All other countries have only one article published.

Table No. 4 Page Length wise Articles Distribution

Page Length	Total	Percentage
5	11	17.75
6	9	14.52
7	14	22.59
8	7	11.29
9	7	11.29
10	5	8.06
11	4	6.45
12	3	4.83
13	1	1.61
14		
15		

16	1	1.61
Total	62	100

Table 4 shows that 14 articles (22.59%) have 7 pages, 11 articles (17.75%) have 5 pages and 9 articles (14.52%) have 6 pages in length. While 28 articles have a page length of 8 or more pages.

Table No. 5 Year Wise Reference

Year	Issue	Reference	Percentage
2017	1	42	2.67
2018	1-4	229	14.66
2019	1-4	373	23.86
2020	1-4	192	12.28
2021	1-4	385	24.64
2022	1-4	342	21.88
Total		1563	100

Table 5 clearly shows that there is a gradual increase in the number of references from the year 2017 to 2022. In 2017, the total number of References is only 42 (2.67%) whereas in 2022 it increased to a number of 342 (21.88%).

Table No. 6 Author wise Article Distribution

Author	No. of Article Publication	Percentage
Shao Yong	3	2.06
Yan Changshun	3	2.06
Xiaojuan Zhang	2	1.37
Yonghe Lu	2	1.37
Singal Article Publication	136	93.15
Total	146	100

Table 6 shows that the two authors are published each 3 (2.06%) articles, 2 authors 2 (1.37%) published each articles, as well as 136 (93.15%) authors is only 1 article published.

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