Global Research Productivity on Information Literacy: A Scientometric Assessment using Web of Science during 2011-2023

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Abstract

This study is aimed to examine the productivity and literature output in Information Literacy. This study analyses the growth of the literature output and information literacy, types of documents. The relevant data were collected using the Web of Science database from the period 2011-2023 and data were tabulated. The total record retrieved is 2582. Major subject categories are authors whose contribution is in the maximum level, country wise productivity, Affiliations of the institutions and the source titles of the literature. The highest number of documents were published in 2022 i.e., 295 records (11.416 %) and the lowest number of documents i.e., 163 records (6.308 %) was published in 2011. During the 2011-2023, Total Number of Records is found to be 2,584..

Keywords
Scientometrics, Bibliometrics, Information Literacy and Web of Science.

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1. INTRODUCTION

Information literacy has become a survival skill for the contemporary society. It entails individuals who are skillful in the use of information. Information is available through libraries, community resources, special interest organizations, media, and the Internet--and increasingly, information comes to individuals in unfiltered formats, raising questions about its authenticity, validity, and reliability. In addition, information is available through multiple media, including graphical, aural, and textual, and these pose new challenges for individuals in evaluating and understanding it. The uncertain quality and expanding quantity of information pose large challenges for society. The sheer abundance of information will not in itself create a more informed citizenry without a complementary cluster of abilities necessary to use information effectively. In such a scenario where we expect people to take informed decision independently, the relevance of IL increases many fold. Be it any kind of organization, association, or profession and irrespective of gender, country, status, age and another social indicator, IL is and will remain an important dimension. Information literacy (IL) is the term used to describe the efficient and competent handling of information. American Library Association (ALA) describes IL as is the ability to locate, evaluate and use information. It is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information."

Information literacy makes people understand the issues surrounding the use of information, and access and use information ethically and legally. Information literacy ranks among the most important key qualifications for success in study and profession in an information society. In higher education, information literacy is primarily promoted by libraries which have, in recent years, expanded on their original offers of library launches and research courses to meet the optimal placement of skills for the information society. "Information literacy is no longer just a library issue. It is the critical campus wide issue for the 21st century, of keen importance to all educational stakeholders, including faculty, librarians, and administrators".

Scientometrics

Scientometrics is "the study of measuring scientific and technological progress" (Garfield, 1979). Its

origin is in the quantitative study of science policy research, or the science of science, which focuses on a wide variety of quantitative measurements, or indicators, of science at large.

2. REVIEW OF LITERATURE

Xavier Carbonell (2009) et al. conducted the on the bibliometric analysis of the scientific literature on Internet, video games, and cell phone addiction. His study revealed that years with the highest numbers of articles published were 2004 (n = 42) and 2005 (n = 40). The most productive countries, in terms of number of articles published, were the United States (n = 52), China (n = 23), the United Kingdom (n = 17), Taiwan (n = 13), and South Korea (n = 9). The most commonly used language was English (65.4%), followed by Chinese (12.8%) and Spanish (4.5%). Articles were published in 96 different journals, of which 22 published 2 or more articles. Kumar Suchetan et al. (2012) Bibliometric method is most often used in the field of library and information science; it also has an equal applicability in other areas. In fact, in many research fields, bibliometric methods are used to explore the impact of their field, the impact of a set of researchers, or the impact of a particular paper, etc. Bibliometrics are now used in quantitative research assessment exercises of academic output.

2.1 OBJECTIVES

- To study the growth of the literature output in information literacy
- To find out the Major subject categories in the literature
- To study the Top authors whose contribution is in the maximum level?
- To assess the country wise productivity of the literature
- To know the Affiliations of the top institutions of the literature
- To identify the source titles of the literature.

3. METHODOLOGY

This study identifies the research productivity and growth of literature in Information Literacy. The relevant data were collected from the Web of Science database and tabulated. The total record retrieved is 2584. The number of records taken for the study is 2,584 from 2011-2023. Standard statistical tools were used to analyze the data.

4. ANALYSIS AND INTERPRETATION

4.1 Growth of Literature

Table 1: Year wise Distribution of Publications

Publication Years	Record Count	% of 2,584
2011	163	6.308
2012	147	5.689
2013	144	5.573
2014	140	5.418
2015	170	6.579
2016	227	8.785
2017	211	8.166
2018	226	8.746
2019	230	8.901
2020	234	9.056
2021	288	11.146
2022	295	11.416
2023	109	4.218

Table- 1 shows that distribution of research articles published in information literacy from 2011 to 2023. The total of 2,582 records was published. The highest number of articles were published in the year 2022 with 295 records (11.416 %) followed by the 2021 with 288 records (11.146 %), 2020 (234), 2019 (230) and the lowest number of records were published in the year 2011 with 163 records (6.308 %).

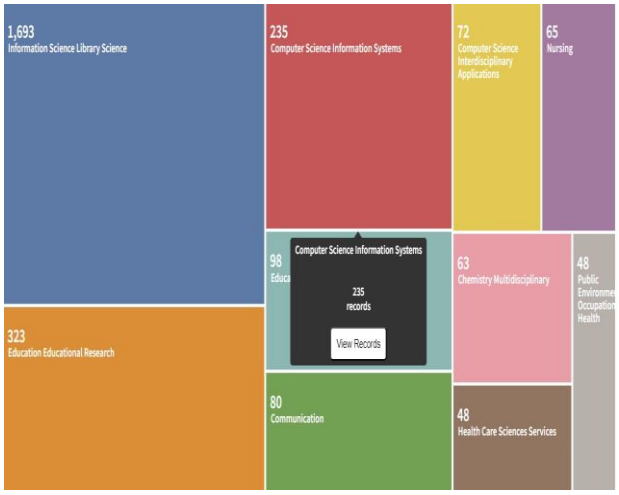
4.2 Subject Wise Categories:

Table 2: Subject-Wise Categories

Web of Science Categories	Record Count	% of 2,582
Information Science Library Science	1693	65.569
Education Educational Research	323	12.510
Computer Science Information Systems	235	9.101
Education Scientific Disciplines	98	3.796
Communication	80	3.098
Computer Science Interdisciplinary Applications	72	2.789
Nursing	65	2.517
Chemistry Multidisciplinary	63	2.440
Health Care Sciences Services	48	1.859
Public Environmental Occupational Health	48	1.859
Medical Informatics	40	1.549
Psychology Multidisciplinary	39	1.510
Environmental Sciences	31	1.201
Psychology Experimental	21	0.813
Engineering Multidisciplinary	18	0.697

Health Policy Services	18	0.697
Telecommunications	18	0.697
Green Sustainable Science Technology	16	0.620
Psychology Educational	16	0.620
Environmental Studies	14	0.542
Multidisciplinary Sciences	14	0.542
Engineering Electrical Electronic	13	0.503
Linguistics	13	0.503
Social Sciences Interdisciplinary	13	0.503
Language Linguistics	12	0.465
Economics	11	0.426
Ergonomics	11	0.426
Political Science	11	0.426
Computer Science Cybernetics	10	0.387
Management	10	0.387
Sociology	10	0.387

Table - 2 indicates the Subject Wise Categories of the Literature. Information Science Library Science covers with 1693 records (65.569 %) and it's followed by Education Educational Research covers with 323 records (12.510 %) in this research period.



4.3 Authorship Pattern:

Table 3: Ranking of Authors Productivity

Authors	Record Count	% of 2,584
Pinto M	39	1.509
Lloyd A	25	0.967
Hicks A	23	0.890
Sales D	17	0.658
Bruce C	15	0.580
Julien H	15	0.580
Fernandez-pascual R	14	0.542
Fourie I	13	0.503
Naveed MA	13	0.503
Gross M	11	0.426
Latham D	11	0.426
Wu D	11	0.426
Hirvonen N	10	0.387
Lowe MS	10	0.387
Spring H	10	0.387
Sundin O	10	0.387
Marzal MA	9	0.348

Table – 3 indicates ranking of authors by number of publication. Authors "Pinto M" published highest number of articles for the study period with 39 records; next consecutive authors Lloyd A are published next highest number of articles for the study period with 25 records and it's followed by author Hicks A published 23 records in this research period.

4.4 Top Journals Contributed:

Table 4: Top Journals Contributed

Publication Titles	Record Count	% of 2,585
Journal Of Academic Librarianship	246	9.516
College Research Libraries	125	4.836
Reference Services Review	114	4.410
Portal Libraries And The Academy	107	4.139
Journal Of Librarianship And Information Science	98	3.791
Journal Of Documentation	93	3.598
Information Research An International Electronic Journal	88	3.404
Health Information And Libraries Journal	70	2.708
Journal Of The Medical Library Association	53	2.050
Computers Education	49	1.896
Library Information Science Research	48	1.857
Library Hi Tech	46	1.779
Reference User Services Quarterly	45	1.741
Libri International Journal Of Libraries And Information Studies	40	1.547
Journal Of Chemical Education	38	1.470
Library Trends	38	1.470
Electronic Library	31	1.199
Journal Of Information Science	31	1.199

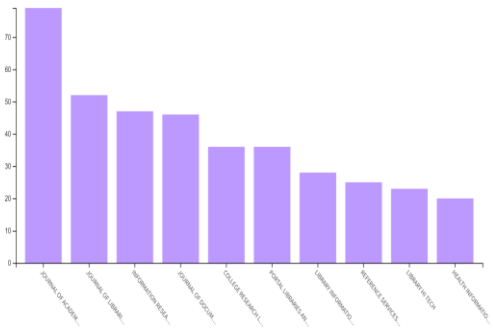


Table 4 shows the Top Journals Contributed. It is noted that Journal of Academic Librarianship contributed the highest number of research publications 246 records (9.516 %) at the same time and the second position is followed by College Research Libraries with 125 records (4.836%).

4.5 Top Research Areas Contributed:

Table 5: Research Areas Contributed

Research Areas	Record Count	% of 2,584
Information Science Library Science	1693	65.519
Education Educational Research	404	15.635
Computer Science	323	12.500
Communication	80	3.096
Psychology	69	2.670
Nursing	65	2.515
Chemistry	64	2.477
Health Care Sciences Services	55	2.128
Engineering	49	1.896
Public Environmental Occupational Health	48	1.858
Medical Informatics	40	1.548
Environmental Sciences Ecology	33	1.277
Science Technology Other Topics	30	1.161

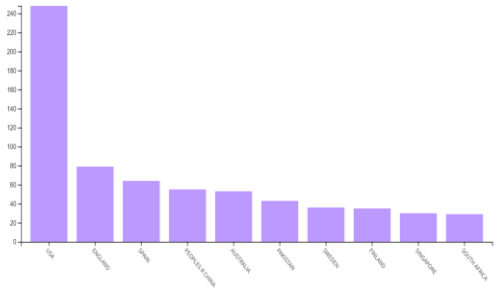
Table 5 indicates that the top most Research Areas contributed. Highest number in the subject area follows Information Science Library Science with 1693 records (65.519%), followed by Educational Research with 404 records (15.635 %) related to this subject productivity.

4.6 Geographical Distribution:

Table 6: Geographical Distribution

Countries/Regions	Record Count	% of 2,585
USA	**1083**	**41.896**
China	**219**	**8.472**
England	**179**	**6.925**
Australia	**147**	**5.687**
Spain	**121**	**4.681**
Canada	**99**	**3.830**
Taiwan	**68**	**2.631**
Sweden	**62**	**2.398**
Germany	**61**	**2.360**
South Africa	**59**	**2.282**
Brazil	**55**	**2.128**
Finland	**53**	**2.050**
Pakistan	**53**	**2.050**
Singapore	**40**	**1.547**
Nigeria	**37**	**1.431**

Table 6 indicates that the country wise number of publications. Highest number of records with 1083 records (41.896 %) has published in USA, followed by China have above 219 records (8.472 %) related to this Geographical distribution productivity.



4.7 Top Universities Contributed

Table 7: Institution wise Distribution of Publication

Affiliations	Record Count	% of 2,584
California State University System	51	1.974
State University System Of Florida	48	1.858
University Of Granada	48	1.858
University Of London	45	1.741
Purdue University	40	1.548
Purdue University System	40	1.548
State University Of New York Suny System	40	1.548
University Of Illinois System	40	1.548
Pennsylvania	37	1.432

Commonwealth System Of Higher Education Pcshe		
University System Of Ohio	37	1.432
University College London	36	1.393
Nanyang Technological University	33	1.277
Nanyang Technological University National Institute Of Education Nie Singapore	33	1.277
Purdue University West Lafayette Campus	32	1.238
University Of North Carolina	31	1.200
The Queensland University Of Technology Qut	30	1.161
Indiana University System	27	1.045
University Of California System	27	1.045
University Of Illinois Chicago	27	1.045

Table 7 shows the Institution wise distribution of publication. It is noted that California State University System institution contributed the highest number of research publications 51 at the same time and its followed by State University System of Florida institution contributed the second position 48 records.

4.8 Top Publishers Contributed:

Table 8: Publishers Contributed

Publishers	Record Count	% of 2,584
Elsevier	449	17.376
Emerald Group Publishing	314	12.152
Sage	213	8.243
Taylor & Francis	183	7.082
Wiley	180	6.966
Johns Hopkins University Press	145	5.611
Assoc Coll Research Libraries	125	4.837
Springer Nature	123	4.760
Univ Sheffield Dept Information Studies	88	3.406
Amer Chemical Soc	60	2.322
Amer Library Assoc	53	2.051
Medical Library Assoc	53	2.051
Walter De Gruyter	43	1.664
Mdpi	31	1.200
Univ Federal Campina Grande	29	1.122
Emerald Group Publishing	24	0.929

Table 8 shows the Publishers wise Distribution. It is noted that Elsevier contributed the highest number of research publications 449 (17.376 %) at the same time and its followed by Emerald Group Publishing contributed the second position 314 (12.152 %) records.

5. Conclusion

This paper has highlighted quantitatively the contributions made by the Global Information Literacy research during 2011-2023 as reflected in the Web of Science database. Global contributions in terms of number of publications are significant during the period (2011-2023). A comparison of global output in relation to the world output may help understand the contribution better. It is found in the study that the highest number of documents were published in the year 2022 i.e., 295 and lowest number of documents 163 was published in the year 2011. Document-wise analysis of record shows that journal articles appeared in the first position, regarding author publication "Pinto M" published the highest number of articles for the study period with 39 records. The majority of the records has published in English language. It is noted that California State University System has contributed the highest number of research publications and USA published more number of records for the study period with 248 records. It is concluded that information literacy is a newly emerging concept in the library and information science field.

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