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Continent wise Analysis of Library Trends Research: A Bibliometric Study

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Abstract

This paper attempts to analyse the growth and development of Library trends, as reflected in publication output covered by Web of Science online database during 1989-2019. Among these 99 countries, China has created 515 (14.1%) Articles and it occupies the first place of Asian continent. Japan, India, South Korea and Taiwan have more than 50 articles produced in this field. UK has produced 427 (11.07 %) Articles and it occupies the first place of European Continent. Germany, Italy, Spain, France and Netherlands have more than 100Articles produced in this field. North American Countries contributed their output 1521 in total where the USA Created 1265 (34.6%) stands in the highest position among them all, and the reason may be the impact of the advancement of the new and recent technologies and trends applied highly in the USA and followed by some other countries.

<u>Keyword</u>: literacy, Information technology, Library Trends, Libraries

Introduction

With the growth of information technology and the resulting change in the library, the Internet and the easy access to digital information have greatly influenced the relationship of the information source to the Users. They have been made available as default information seekers, thus changing the course of library trends. Analyzing the current research trends in all universities in the field of library science and related issues from 1989 to 2019, each university and its respective countries have been able to understand the growth pattern in this regard. From 1989 to 2019, bibliometric study is limited to understanding the latest trends and Technology in the distribution of publications and thus understanding the dynamics of library and information science in the world. In addition to evaluating the research results of journals over the past 30 years, we have also been able to understand the methodology and geographical distribution of publications and the new trends in library and information science research over the period of analysis.

Objectives

- To examine the growth of research output of Library trends research during 1989- 2019.
- To identify the mainland with country wise distribution of publications.
- To identify the continental with country wise Global Citation Scores, Local Citation Score

Methodology

The necessary information was gathered from Web of Science database for the period 1989-2019. It tends to be seen that almost 3660 bibliographic records of contribution in field of Library Trends over the time of 30 Years. A total of 3660 records were downloaded and analyzed by using the Histcite software applications as per the objectives of the study. The investigation plans to examine the push regions of research focus on Library Trends research. It is systematic in nature with the reasonable factual instruments applications in strengthening the empirical validity.

Data Analysis and Interpretations

This analysis covers the researcher's exploration yield on Library Trends research publications at continent level. There are seven landmasses, however here the analyst has taken just six mainland's on the grounds that the last mainland of Antarctica doesn't have any commitment to the productions of this region. So for this piece of analysis, researcher has chosen landmasses of Asia, Europe, Africa, North America, South America and Australia.

Year wise

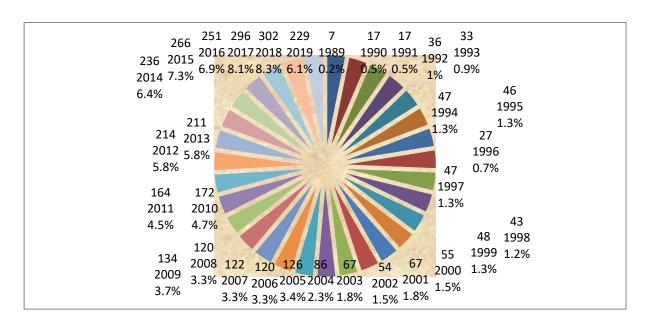
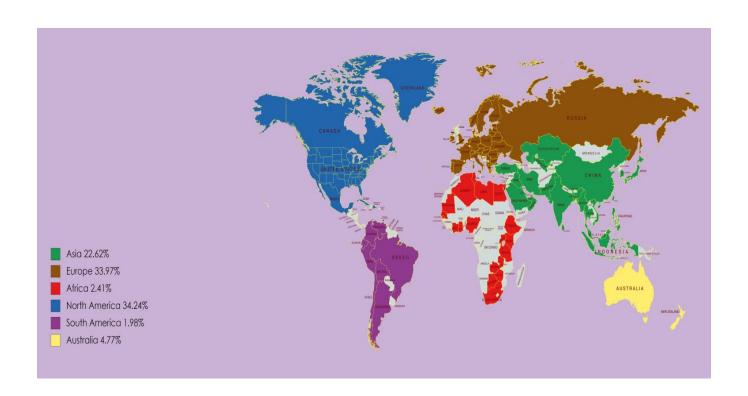


Table 8 exhibits year wise statistics of records in the area of Library Trends. The table shows positive growth scale in the number of records year wise. The year 1989 starts with 7 records

and in 2019 it typically increased to 229 records. The growth and development in research publications in the field of Library Trends is well witnessed in this table.

Table 1 – Shows Continent Wise Research output of Library trends

| Rank | Continents | Contributing | No of | Percentage | TLCS | TGCS |
|-------|----------------|--------------|--------|------------|------|--------|
| | | Countries | Record | | | |
| 1 | Asia | 28 (28.28) | 1005 | 22.62 | 129 | 20117 |
| 2 | Europe | 36 (36.36) | 1509 | 33.97 | 204 | 49994 |
| 3 | Africa | 19 (19.19) | 107 | 2.41 | 15 | 3003 |
| 4 | North American | 6 (6.06) | 1521 | 34.24 | 520 | 43259 |
| 5 | South American | 8 (8.08) | 88 | 1.98 | 1 | 1128 |
| 6 | Australia | 2 (2.02) | 212 | 4.77 | 44 | 8098 |
| Total | | 99 | 4442 | 100 | 913 | 125599 |



The Table 1 unveils the research output on Library Trends during 1989 to 2019 Continent wise. Indicates that the continent wise distribution of total research output on Library Trends research literature. The North America continent stood in the first place with the highest

publication of 1521 (34.24 %) on Library Trends output from 6 (6.06 %) countries contributing along with 520 TLCS and 43259 TGCS measured. The Europe continent occupies the second position with 1509 publications (33.97 %) from 36 (36.36 %) countries contributing with 204 TLCS and 49994 TGCS measured. Observed from this analysis Asian continent with 22.62 % (1005) of articles from 28(28.28 %) countries along with 129 TLCS and 20117 TGCS measured and it stands in the third position of the research productivity. Australian continent has 212(4.77 %) output during the study period along with 8142 total citation scores from 2(2.02 %) countries. African continent has 2.41 percent output during the study period along with 3018 total citation scores from 19(19.19 %) countries. South American continent has last position with 1.98 percent among the six continents along with 1129 total citation scores from 8 (8.8%) countries. Apart from these continent publications, unknown articles also found a space of 256(7%) with 3177 total citation scores. Overall the continent's citation scores are 126512.

Table 2 Research Performance of Library trends Output by Asian Countries

| Sl.NO. | Country | Records | TLCS | TGCS | 1005% | 3660% |
|--------|----------------|---------|------|------|-------|-------|
| 1 | PeoplesR China | 515 | 39 | 9402 | 51.24 | 14.1 |
| 2 | Japan | 76 | 6 | 3128 | 7.56 | 2.1 |
| 3 | India | 71 | 12 | 861 | 7.06 | 1.9 |
| 4 | South Korea | 69 | 13 | 721 | 6.87 | 1.9 |
| 5 | Taiwan | 54 | 16 | 923 | 5.37 | 1.5 |
| 6 | Iran | 31 | 1 | 277 | 3.08 | 0.8 |
| 7 | Israel | 30 | 12 | 754 | 2.99 | 0.8 |
| 8 | Singapore | 29 | 14 | 2404 | 2.89 | 0.8 |
| 9 | Malaysia | 23 | 4 | 359 | 2.29 | 0.6 |
| 10 | Pakistan | 22 | 1 | 208 | 2.19 | 0.6 |
| 11 | Saudi Arabia | 21 | 0 | 70 | 2.09 | 0.6 |
| 12 | Turkey | 16 | 6 | 210 | 1.59 | 0.4 |
| 13 | Thailand | 11 | 0 | 307 | 1.09 | 0.3 |
| 14 | Qatar | 6 | 0 | 88 | 0.60 | 0.2 |
| 15 | Kuwait | 5 | 0 | 38 | 0.50 | 0.1 |
| 16 | Lebanon | 4 | 0 | 53 | 0.40 | 0.1 |
| 17 | Bangladesh | 3 | 1 | 56 | 0.30 | 0.1 |

| Total | | 1005 | 129 | 20117 | 100 | 27.5 |
|-------|----------------------|------|-----|-------|------|------|
| 28 | Uzbekistan | 1 | 0 | 14 | 0.10 | 0 |
| 27 | Sri Lanka | 1 | 0 | 0 | 0.10 | 0 |
| 26 | Myanmar | 1 | 0 | 13 | 0.10 | 0 |
| 25 | Kazakhstan | 1 | 0 | 0 | 0.10 | 0 |
| 24 | Iraq | 1 | 0 | 9 | 0.10 | 0 |
| 23 | United Arab Emirates | 2 | 0 | 32 | 0.20 | 0.1 |
| 22 | Philippines | 2 | 0 | 51 | 0.20 | 0.1 |
| 21 | Indonesia | 2 | 3 | 46 | 0.20 | 0.1 |
| 20 | Bahrain | 2 | 0 | 31 | 0.20 | 0.1 |
| 19 | Vietnam | 3 | 0 | 30 | 0.30 | 0.1 |
| 18 | Oman | 3 | 1 | 32 | 0.30 | 0.1 |

The table displays 1005 records in the field of Library trends published from a total of 28 Asian countries. China dominates with 515 (51.24%) published research output among the 28 Asian Countries. India occupies third position with 71 (7.06%) research publication records next to Japan 76 (7.56%). South Korea and Taiwan with 69 (6.87%), 54 (5.37%) records each revealing their progress in the research field of Library Trends. The last five countries are with the least output of 1 (0.10%) records each.

Table 3 – Shows Performance of Library trends Research Output in European Countries

| S.NO. | Country | Records | TLCS | TGCS | 1509% | 3660% |
|-------|-------------|---------|------|-------|-------|-------|
| 1 | UK | 427 | 71 | 15620 | 28.30 | 11.7 |
| 2 | Germany | 148 | 25 | 5037 | 9.81 | 4 |
| 3 | Italy | 127 | 9 | 4112 | 8.42 | 3.5 |
| 4 | Spain | 115 | 13 | 1713 | 7.62 | 3.1 |
| 5 | France | 111 | 7 | 3167 | 7.36 | 3 |
| 6 | Netherlands | 102 | 10 | 4214 | 6.76 | 2.8 |
| 7 | Switzerland | 61 | 17 | 2489 | 4.04 | 1.7 |
| 8 | Denmark | 51 | 4 | 2912 | 3.38 | 1.4 |
| 9 | Sweden | 49 | 5 | 1605 | 3.25 | 1.3 |
| 10 | Belgium | 39 | 4 | 823 | 2.58 | 1.1 |

| Total | | 1509 | 204 | 49994 | 100 | 41 |
|-------|----------------|------|-----|-------|------|-----|
| 36 | Lithuania | 1 | 0 | 0 | 0.07 | 0 |
| 35 | Latvia | 1 | 0 | 14 | 0.07 | 0 |
| 34 | Czechoslovakia | 1 | 0 | 0 | 0.07 | 0 |
| 33 | Cyprus | 1 | 0 | 6 | 0.07 | 0 |
| 32 | Belarus | 1 | 0 | 14 | 0.07 | 0 |
| 31 | Azerbaijan | 1 | 0 | 11 | 0.07 | 0 |
| 30 | Macedonia | 2 | 0 | 0 | 0.13 | 0.1 |
| 29 | Iceland | 2 | 0 | 7 | 0.13 | 0.1 |
| 28 | Ukraine | 3 | 2 | 172 | 0.20 | 0.1 |
| 27 | Estonia | 4 | 0 | 78 | 0.27 | 0.1 |
| 26 | Hungary | 5 | 0 | 376 | 0.33 | 0.1 |
| 25 | Bulgaria | 5 | 0 | 54 | 0.33 | 0.1 |
| 24 | Slovakia | 6 | 0 | 61 | 0.40 | 0.2 |
| 23 | Romania | 6 | 0 | 148 | 0.40 | 0.2 |
| 22 | Serbia | 8 | 1 | 49 | 0.53 | 0.2 |
| 21 | Croatia | 9 | 1 | 16 | 0.60 | 0.2 |
| 20 | Slovenia | 15 | 5 | 756 | 0.99 | 0.4 |
| 19 | Czech Republic | 17 | 0 | 229 | 1.13 | 0.5 |
| 18 | Norway | 18 | 4 | 697 | 1.19 | 0.5 |
| 17 | Portugal | 20 | 0 | 410 | 1.33 | 0.5 |
| 16 | Russia | 22 | 2 | 186 | 1.46 | 0.6 |
| 15 | Poland | 22 | 4 | 577 | 1.46 | 0.6 |
| 14 | Austria | 23 | 2 | 776 | 1.52 | 0.6 |
| 13 | Ireland | 27 | 4 | 2377 | 1.79 | 0.7 |
| 12 | Finland | 29 | 8 | 631 | 1.92 | 0.8 |
| 11 | Greece | 30 | 6 | 657 | 1.99 | 0.8 |

European countries produced 1509 published records in Library Trends with UK in the top position with 427 (28.30%) records. Germany 148(9.81%), Italy 127(8.42%), Spain 115 (7.62%) and France 111(7.36%) comes next to UK. The output of research publications is constantly high considered to other continents. From table 3 it is evident that the last few countries Belarus, Cyprus,

Czechoslovakia, Latvia and Lithuania are with 1(0.07%) record each whose performance is least among the 36European countries in the area of Library Trends Research output.

Table 4 Performance of Library trends Output by African Countries

| S.NO. | Country | Records | TLCS | TGCS | 105% | 3660% |
|-------|--------------|---------|------|------|-------|-------|
| 1 | South Africa | 48 | 8 | 2501 | 45.71 | 1.3 |
| 2 | Egypt | 10 | 0 | 82 | 9.52 | 0.3 |
| 3 | Nigeria | 8 | 0 | 39 | 7.62 | 0.2 |
| 4 | Kenya | 7 | 0 | 132 | 6.67 | 0.2 |
| 5 | Ethiopia | 5 | 0 | 15 | 4.76 | 0.1 |
| 6 | Ghana | 5 | 7 | 23 | 4.76 | 0.1 |
| 7 | Tanzania | 4 | 0 | 61 | 3.81 | 0.1 |
| 8 | Uganda | 4 | 0 | 25 | 3.81 | 0.1 |
| 9 | Botswana | 3 | 0 | 5 | 2.86 | 0.1 |
| 10 | Tunisia | 2 | 0 | 10 | 1.90 | 0.1 |
| 11 | Zimbabwe | 2 | 0 | 5 | 1.90 | 0.1 |
| 12 | Algeria | 1 | 0 | 2 | 0.95 | 0 |
| 13 | Cote Ivories | 1 | 0 | 2 | 0.95 | 0 |
| 14 | Gambia | 1 | 0 | 14 | 0.95 | 0 |
| 15 | Libya | 1 | 0 | 5 | 0.95 | 0 |
| 16 | Mauritius | 1 | 0 | 0 | 0.95 | 0 |
| 17 | Senegal | 1 | 0 | 0 | 0.95 | 0 |
| 18 | Zambia | 1 | 0 | 1 | 0.95 | 0 |
| Total | • | 105 | 15 | 2922 | 100 | 2.7 |

African countries produced a total of 105 records in the research area of Library Trends. South Africa dominates foremost position with 48 (45.71%), followed by Egypt, Nigeria and Kenya with 10(9.52%), 8(7.62%), and 7(6.67%) records each respectively. On the whole there is no uniformity in the growth of records and a negative growth is witnessed from the side of other African countries like Tunisia, Zimbabwe, Algeria, Libya and Mauritius with 1(0.07%) record as depicted in Table4.

Table 5 Performance of Library trends Research Output by North American Countries

| S.NO. | Country | Records | TLCS | TGCS | 1521% | 3660% |
|-------|---------------|---------|------|-------|-------|-------|
| 1 | USA | 1265 | 422 | 36361 | 83.17 | 34.6 |
| 2 | Canada | 224 | 97 | 6483 | 14.73 | 6.1 |
| 3 | Mexico | 21 | 1 | 317 | 1.38 | 0.6 |
| 4 | Cuba | 8 | 0 | 50 | 0.53 | 0.2 |
| 5 | Dominican Rep | 2 | 0 | 44 | 0.13 | 0.1 |
| 6 | Greenland | 1 | 0 | 4 | 0.07 | 0 |
| Total | | 1521 | 520 | 43259 | 100 | 41.6 |

North American countries were confined to 6 but stood in the first place in research publications output in the area of Library Trends among all the 6 continents. USA recorded the highest record in Research output with 1265 (83.17%) records. Canada comes next with 224 (14.73%) records. The Table 5 shows comparatively good research output which outlines the progress of libraries in using technology to provide innovative services to the user community.

Table 6 Performance of Library trends Research Output by South American Countries

| S.NO. | Country | Records | TLCS | TGCS | 90% | 3660% |
|-------|----------------------|---------|------|------|-------|-------|
| 1 | Brazil | 55 | 1 | 743 | 61.11 | 1.5 |
| 2 | Chile | 10 | 0 | 156 | 11.11 | 0.3 |
| 3 | Colombia | 10 | 0 | 81 | 11.11 | 0.3 |
| 4 | Argentina | 6 | 0 | 28 | 6.67 | 0.2 |
| 5 | Ecuador | 3 | 0 | 15 | 3.33 | 0.1 |
| 6 | Trinidad & Tobago | 2 | 0 | 81 | 2.22 | 0.1 |
| 7 | Bolivia | 2 | 0 | 21 | 2.22 | 0.1 |
| 8 | Peru | 1 | 0 | 55 | 1.11 | 0 |
| 9 | Venezuela | 1 | 0 | 29 | 1.11 | 0 |
| Total | | 90 | 1 | 1209 | 100 | 2.6 |

Research output on Library Trends were analysed among 9 South American Countries in Table 6. Brazil tops with 55 (61.11%) records out of the total 90 Publication records on Library Trends Output altogether. Chile and Colombia has 10 (11.11%) records each. Peru and Venezuela contributes with feeble output of 1 record each.

Table 7 Research Performance of Australian Countries

| S.NO. | Country | Records | TLCS | TGCS | 212% | 3660% |
|-------|-------------|---------|------|------|-------|-------|
| 1 | Australia | 184 | 40 | 5647 | 86.79 | 5 |
| 2 | New Zealand | 28 | 4 | 2451 | 13.21 | 0.8 |
| Total | | 212 | 44 | 8098 | 100 | 5.8 |

Australia and New Zealand produces a total of 212 records in the area of Library Trends. Analysis of Table 7 depicts highly collaborative Australian countries with their research output. Australia comes up with 184 (86.79%) records with the maximum output in the area of Library Trends.

Overall Country wise Distribution of Publications

The country-wise distribution of publications on Library trends covered by the study ,United States of America with 1265(34.6%) publications tops followed by China with 515(14.1%), UK 427(11.7%), Canada 224(6.1%), and Australia with184(5%). India is occupying the 12th position in the world in terms of publications. The United States is the first to have a global Citation Score of 36361 with 1265 publications in terms of Citations Scores and followed by UK with 15620 Global Citation Scores, China has 9402 Global Citation Scores and remaining contribution by other countries. Unknown articles also found a space of 256(7%) with 3090 Global Citation scores.

Findings and conclusion

Based on the findings of this study, the following findings are revealed below:

• Out of 3660 articles, the Indian authors contributing in the area of Library trends are just 71 (1.9 %) articles, The researcher has found that the number of publications shows a decreasing trend year by year as shown in the table2. In total, only 71 articles have been published by Indian researchers in Library Trends.

- United States of America with 1265(34.6%) publications tops followed by China with 515(14.1%), UK 427(11.7%), Canada 224(6.1%), and Australia with184 (5%). India is occupying the 12th position in the world in terms of publications. USA got the first position by the More Number of citation.
- North American countries contributed their output 1521 in total where, USA (34.6%) stands in the highest position among them all, and the reason may be that USA has been greatly influenced by the recent advances in technology and followed by Canada, Mexico.
- Among these 36 countries, UK produced 427 (11.7%) articles and it occupies the first Place in the European continent. Germany, Italy, Spain, France and Netherland have produced more than 100 articles in this field. Switzerland and Denmark contributed more than 50 articles.
- Out of the 28 Asian countries the top position is occupied by China (14.1%) on the performance of Library Trends output and has proved its strong technological awareness among them all, followed by other countries, where India stands in the third position (1.9%).
- Among the Australian countries, in which Australia contributed (5%) output and ranked first and New Zealand (0.8%) has picked the second rank of research output in Library trends.
- All 18 African countries have contributed only 105 articles in the subject of Library trends. Among these 18 countries, South Africa is the leading country followed by Egypt, Nigeria, Kenya, Ethiopia and Ghana having above five articles.
- Out of the 9 South American countries in total, Brazil advanced to number one position with (1.5%) followed by the other eight countries in the next places.

The change in perspective over the period is a progressive increment in the investigation time frame yet great reaction is seen in the year 2014, 2015, 2016, 2017 and 2018. This study highlights the contributions made by researchers during the period 1989-2019 reflected in the Web of Science database. Even though the number of publications in the 30-year period is insignificant, there has been a great deal of progress since 2010, which continues to increase each year. A comparison of USA output in regard to the global output could facilitate in understanding the contribution in a very higher angle. Though the records out there within the Web of Science database reveal a little variety, it's necessary thereto the web of Science covers solely the peer-reviewed journals.

References

- 1. https://en.wikipedia.org/wiki/LibraryTrends
- 2. Arunachalam, S., & Garg, K. C. (1986). Science on the periphery a scientometric analysis of science in the Asian countries. *Journal of Information Science*, 12(3), 105-117.
- 3. Kumar P.S.G.(2002) A student manual of library and information science. B.R.Publishing, New Delhi.
- 4. Raja, S. and Balasubramani, R. (2011). Plasmodium falciparum research publication in India: A scientometric analysis. *European Journal of Scientific Research*, 56(3), 294-300.
- 5. Balasubramani R and Murugan C(2011)"Mapping of Tapioca (Sago) Research in India: A Scientometric Analysis" *Library Philosophyand Practice*, pp 1-12.
- Surulinathi ,M. et al. (2013) Continent wise Analysis of Green Computing Research:
 A Scientometric Study. *Journal of Advances in Library and Information Science* 2.
 (1) pp. 39-44