



IJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 2

Issue: X

Month of publication: October 2014

DOI:

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Authorship and Collaborative Patterns in the Open software Engineering Journals, 2007-2012

Vijayanathan.R¹, Vijayakumar.K²

¹Senior Librarian and Head, ²Assistant Professor

^{1,2}Department of Library and Information Science,

¹Cauvery College of Engineering and Technology, Trichy. 639 103 (Tamilnadu)

²Annamalai University, Annamalai Nagar, Chidambaram (Tamil Nadu)

Abstract: *Bibliometric techniques were applied to analyze the authorship trend in the “the Open software Engineering journals, 2007-2012 . A total of 16 articles in the Journal were examined by year and volume to ascertain authorship patterns, author productivity, the average degree of collaboration is 0.75 during the period under study*

I. INTRODUCTION

The open software engineering journals is a peer-reviewed open access e-journal. OSEJ was launched in 2007 and published annual by the Internet software engineering Club. It is a scholarly journal in English devoted to the various fields of software and information Technology. It publishes research findings, case studies, book reviews, and technical procedures by faculty, researchers, and students. OSE It is indexed with the full text available in the “Computer science & Technology Abstracts with Full Text” database on <http://www.delnet.org>. The coverage is from 2007 onwards. OSE has adopted a new copyright statement in support of the open access initiative and is going fully online from 2009. (LISA) and listed in Ulrich's Periodicals Directory, Directory of Open Access Journals DOAJ (DOAJ), and Cabell's Directory of Publishing Opportunities in Educational Technology and Library Science.

II. OBJECTIVE OF THE STUDY

The objectives of the present study are as follows:

- 1.
2. To study authorship patterns by year and issue
3. To study author productivity
- 4.
5. To identify most prolific contributors, and
6. To identify degree of author collaboration

III. METHODOLOGY

The data was collected from the open access website of the Open software Engineering journals to evaluate the research publication of Developing Library Network (Delnet) new delhi in the field of science and Technology Research article contributions by issue and year, number of authors, authorship patterns by volume, authorship patterns by country, author's productivity, most prolific contributors, and degrees of author collaboration were recorded. Research contribution in the field of science and technology database on open software engineering journal and cover the period from 2007 to 2012, Further, the research has downloaded the paper and bibliographical data in the form of notepad files. Then the bibliographical details are converted to the form of MS –EXCEL format using the PHP (hypertext pre processor), Scripting language text extracting based an delimiters Programme. Finally, the unique data are rearranged in MS –EXCEL format to the data for analyzing the present study.

IV. SCOPE AND COVERAGE OF THE STUDY

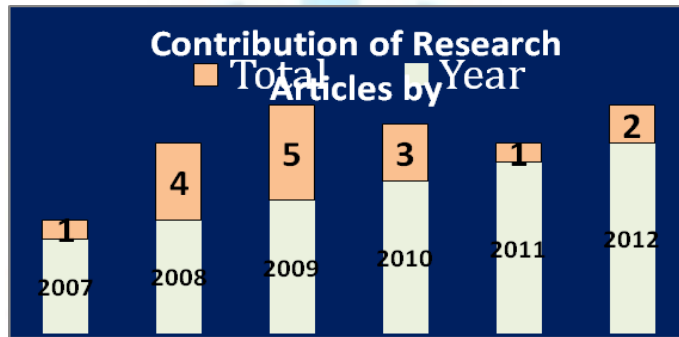
The analysis of information use of the research publication of Developing Library Network (Delnet) Newdelhi in the field of science and Technology The subject coverage on the open source software journals by them during the period from 2007-2012 were taken for the study

V. ANALYSIS

Table 1. Contribution of Research Articles by Year and Volume

| Sl | Year | Volume No. | No. of Research Articles | Total | Percentage (%) |
|-------|------|------------|--------------------------|-------|----------------|
| 1 | 2007 | 1 | 1 | 1 | 6.25 |
| 2 | 2008 | 2 | 4 | 4 | 25.00 |
| 3 | 2009 | 3 | 5 | 5 | 31.25 |
| 4 | 2010 | 4 | 3 | 3 | 18.75 |
| 5 | 2011 | 5 | 1 | 1 | 6.25 |
| 6 | 2012 | 6 | 2 | 2 | 12.50 |
| Total | | | | 16 | 100 |

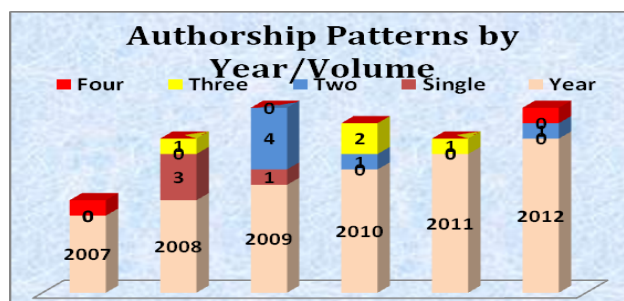
Table 1 and Graph 1 show the growth of research articles published in the Open software engineering Journal from 2007- 2012 was 16. The highest number of research articles (5, 31.25%) was published in the year 2009 while the lowest number (1, 6.25%) of research articles in the year 2007and 2011.



Graph 1. Contribution of Research Articles by Year

Table 2. Authorship Patterns by Year/Volume

| Year | Vol. | Authors per Articles | | | | Total No. of Paper (%) | Total No. of Author (%) |
|-------|------|----------------------|-----|-------|------|------------------------|-------------------------|
| | | Single | Two | Three | Four | | |
| 2007 | 1 | | | | 1 | 3 | |
| 2008 | 2 | 3 | | 1 | 4 | 6 | |
| 2009 | 3 | 1 | 4 | | 5 | 9 | |
| 2010 | 4 | | 1 | 2 | 3 | 8 | |
| 2011 | 5 | | | 1 | 1 | 3 | |
| 2012 | 6 | | 1 | | 1 | 6 | |
| Total | | 4 | 6 | 4 | 2 | 16 | 35 |



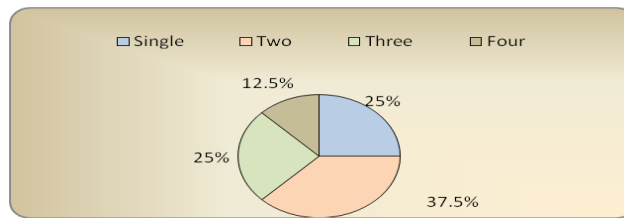
Graph. 2. Authorship Patterns by Year/Volume

International Journal for Research in Applied Science & Engineering Technology(IJRASET)

It is clear that the number of volumes of research articles has been increased from 2007-2012. It is clear that the of 16 contributions, four contributions by single authors, the volumes 3 has the highest number of authors (3 volumes five paper, 9 authors) while volume 1&5 has lowest number of authors. The volumes 1&5 have lowest number of papers and somewhat high number of authors (6) when compared to 2 and 6 volumes.

Table 3. Authorship Patterns

| Sl. No. | Author | Total | Percentage (%) |
|---------|---------------|-------|----------------|
| 1 | Single Author | 4 | 25.00 |
| 2 | Two Authors | 6 | 37.50 |
| 3 | Three Authors | 4 | 25.00 |
| 4 | Four Authors | 2 | 12.50 |
| Total | | 16 | 100 |

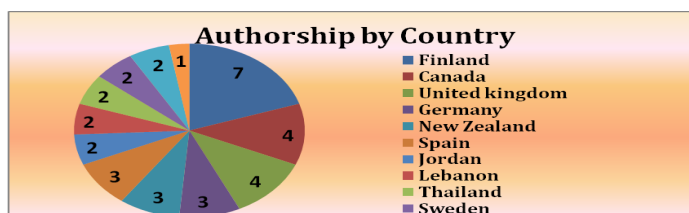


Graph 3 .Authorship Patterns

The above table-3 showed that out of 16 articles contributed a single author has contributed 25.00% of the total articles.37.50 % of the contributions were published two authors, 25.00% of the contributions were contributed by one author and three authors, 12.50 % of contributions were contributed by more than four author. A Significant note of the study is that the majority of articles are contributed by two authors.

Table 4. Authorship by Country

| Sl. No. | Country | No. of Contributions | Percentage (%) |
|---------|----------------|----------------------|----------------|
| 1 | Finland | 7 | 20.00 |
| 2 | Canada | 4 | 11.43 |
| 3 | United kingdom | 4 | 11.43 |
| 4 | Germany | 3 | 8.57 |
| 5 | New Zealand | 3 | 8.57 |
| 6 | Spain | 3 | 8.57 |
| 7 | Jordan | 2 | 5.71 |
| 8 | Lebanon | 2 | 5.71 |
| 9 | Thailand | 2 | 5.71 |
| 10 | Sweden | 2 | 5.71 |
| 11 | Nicosia | 2 | 5.71 |
| 12 | Mexico | 1 | 2.86 |
| Total | | 35 | 100 |



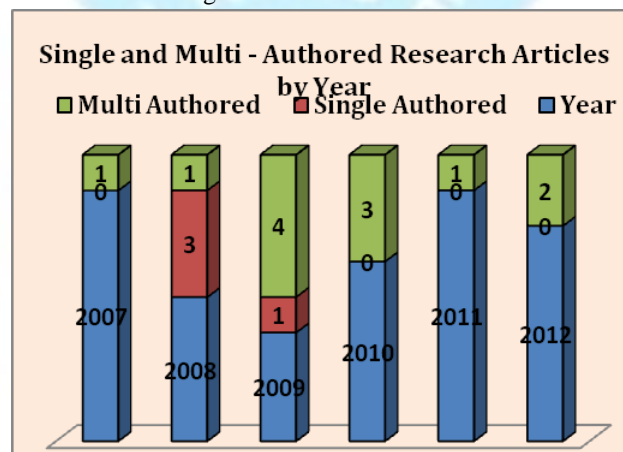
Graph 4 . Authorship by Country

The 16 research articles were contributed by 35 authors from twelve countries. The highest number of authors 7, 20.00%) were from finland and lowest number of authors from meixco (1,2.86%) where as Canada and united kindom has come in the second place (4,11.43%)

Table 5. Single and Multi-Authored Research Articles by Year

| Sl. No. | Year | Single Authored | | Multi Authored | | Total | % |
|---------|------|-----------------|-------|----------------|-------|-------|-------|
| | | Articles | % | Articles | % | | |
| 1 | 2007 | | | 1 | 8.33 | 1 | 6.25 |
| 2 | 2008 | 3 | 75.00 | 1 | 8.33 | 4 | 25.00 |
| 3 | 2009 | 1 | 25.00 | 4 | 33.33 | 5 | 31.25 |
| 4 | 2010 | | | 3 | 25.00 | 3 | 18.75 |
| 5 | 2011 | | | 1 | 8.33 | 1 | 6.25 |
| 6 | 2012 | | | 2 | 16.67 | 2 | 12.50 |
| Total | | 4 | 100 | 12 | 100 | 16 | 100 |

In all the year multi authors were dominated over single author. Even there were number of single authors in the year 2007-2012.



Graph. 5 single and multi authored research paper

Table 6. Degree of Author Collaboration

| Sl. No. | Year | Single Authored Paper (Ns) | Multi Authored Papers (Nm) | Total (Nm+Ns) | Degree of Collaboration |
|---------|------|----------------------------|----------------------------|---------------|-------------------------|
| 1 | 2007 | | 1 | 1 | 1.00 |
| 2 | 2008 | 3 | 1 | 4 | 0.25 |
| 3 | 2009 | 1 | 4 | 5 | 0.80 |
| 4 | 2010 | | 3 | 3 | 1.00 |
| 5 | 2011 | | 1 | 1 | 1.00 |
| 6 | 2012 | | 2 | 2 | 1.00 |
| Total | | 4 | 12 | 16 | 0.75 |

Table 6 shows the degree of author collaboration in the open software engineering Journals The formula given by K.Subramanyam is useful for determining the degree of collaboration in quantitative terms. The study followed the same formula which is mathematically put as:

International Journal for Research in Applied Science & Engineering Technology(IJRASET)

$C = \frac{NM}{NM+NS}$

Where C= Degree of collaboration

NM = Number of Multi-Author papers

NS = Number of Single Author Paper.

In the Present Study NM = 21, NS = 4

$C = \frac{12}{12+4} = \frac{12}{16}$

$C = 0.75$

Thus the degree of collaboration in open software engineering Journals is 0.75 which clearly indicates its dominance upon multi contribution

V. CONCLUSION

The Open software engineering journals (*OSEJ*) has been growing over 6 years from publishing 1 research articles in 2007 to 2 research articles in 2012. The authorship patterns have changed, too, from the single authors in early years to predominant multi-author collaboration in recent years. From 2007 to early 2012, the open software engineering Journal published articles mostly from Finland authors. It started accepting research articles from any countries, thus becoming a real international journal. As of today, there are 12 countries contributing research articles to the journal, including 7 (20.00%) authors from the Finland States, 4 (11.43%) from Canada and UK, 3 (8.57%) from Germany etc., and 1 (2.86%) from mix co.

REFERENCES

- [1] Amsaveni, N.; & Vasanthi, R. (2013). Authorship pattern and collaborative research in the field of network security. *Indian Journal of Applied Research* 3(1), 52-54.
- [2] Bakri, A.; & Willett, P. (2008). The 'Malaysian Journal of Library and Information Science' 2001- 2006: A bibliometric study. *Malaysian Journal of Library & Information Science*, 13(1), 103-116.
- [3] Kavitha T, (2013) Indian Journal of Nutrition and Dietetics: Bibliometrics Study, *Journal of Advances in Library and Information Science*, Vol. 2. No.1. pp. 12-14
- [4] Thavamani, Kotti. (2014). Authorship and collaborative patterns in the Chinese Librarianship: an International Electronic Journal, 1996-2013. *Chinese Librarianship: an International Electronic Journal*, 37 URL: <http://www.iclc.us/cliej/cl37thavamani.pdf>
- [5] Thavamani, K.; & Velmurugan, C. (2013). Authorship pattern and collaborative research work in 'Annals of Library and Information Studies'. *Proceedings of the National Conference on Next Generation Library Services, SALIS 2013 NGLIS August 16-17, Chennai*.
- [6] Vimala, V.; & Pulla Reddy, V. (1996). Authorship pattern and collaborative research in the field of zoology. *Malaysian Journal of Library & Information Science*, 1(2), 43-50.
- [7] Vijayanathan.R (2014) Authorship and collaborative patterns in the Singapore journal of library and information management ,2008-2012 *International Journal for Research in Applied Science and Engineering Technology(IJRASET)*, 2(vi), 138-142.

AUTHOR'S PROFILE



Vijayanathan.R. received his Master of philosophy Library and Information Science from Annamalai University in 1999 Also he obtained his post-graduate degree in Master of Economics in Bharathidasan University in 1996. He is working as a Sr. Librarian, Department of library and Information Science in Cauvery College of Engineering and technology, Trichy from 2009.

He has published 17 research papers in National and International journals. His areas of interested are networking; Cloud computing, IC Technologies, Environmental study, Library Automation, Webometric study, Scientometric study, Bibliometric analysis, and citation study.

Dr. K. Vijayakumar, is working as Assistant Professor, Department of Library and information science, Annamalai university chidambaram, Tamil Nadu. He has completed M.Com. DLL (Law), M.L.I.S, M.Phil, and Ph.D (LIS) in Annamalai University, Annamalai Nagar. He has guided many Ph.D scholars and Doctoral Committee member in various Universities in Tamil Nadu. He has published more than 40 articles in National and International Journals and 85 papers presented and published in National and International Conferences. Further he also published in some books in Library and Information Science and 15 papers published in Chapters in edited books. He has attended more than 60 Seminars/Workshops and training programmes. He has organized ten workshops on Developing Article writing skills and Web Technologies for Employability skills.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)