
Research Contributions of Indian Universities in ResearchGate: An Analysis

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Abstract

This article examines the research contributions of State Universities in India. The data for the study have been extracted from the website of ResearchGate.net (www.researchgate.net) for this study during August 2017. It was found that 281 State Universities have been contributed the research contributions made by ResearchGate. Further the data were analyzed to find out the ResearchGate RG Scores, Members and Publications of State Universities in India by State wise, Members, Publications, ResearchGate (RG) Scores, Top Ten departments along with their members and various types of documents by top ten departments with publications and authors of State Universities in India. It is found that Tamilnadu state has more number of 11220 members with 20374 publications and very less research contributions of Tripura state has 10 members with 7 publications of State Universities in ResearchGate.

Keywords

*ResearchGate, State Universities, Academic Social
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1. INTRODUCTION

Academic social networking sites like ResearchGate (RG) and other are changing the trend of disseminating research through journals and other scholarly publications and indexing databases, and hence, the statistics provided by such sites may indicate the impact of articles and authors as well as their affiliations. The dissemination of research through social networking sites is a relatively new practice that is gaining popularity throughout the world. Social media releases of research increases the readership of articles, thereby popularizing it quickly (Allen et al., 2013).

2. RESEARCHGATE

ResearchGate was founded in 2008 by IjadMadisch, who aims to transform the way researchers are doing their research (Dolan, 2012). Started in Boston and now based in Berlin, Germany, and backed by several U.S. venture capital firms, ResearchGate now has more than +14 million members, with an average of seven researchers signing up per minute (ResearchGate, 2015). The success of ResearchGate has enabled researchers to disseminate their ideas and share their publications free of charge to facilitate collaboration among researchers from all over the world. Through ResearchGate, members' can use the platform to maintain their own publications, ask and answer research-related questions, and follow their researchers to receive their publication updates.

3. REVIEW OF LITERATURE

Muscanel, Muscanell, Utz & Utz (2017)¹ examined the usage and utility of ResearchGate (RG), which is a social networking site where scientists disseminate their work and build their reputations. The authors employed an online survey approach to target scientists who have an active RG account. The study found that most academics who have an RG account did not use it very heavily. Users did not perceive many benefits from using the site, and RG use was not related to career satisfaction or informational benefits, but was related to productivity and stress. Study also suggested that RG needs to increase user engagement. Yu, Wu, ALhalabi, Kao & Wu (2016)² focused on research, ResearchGate metrics and firstly compared with those that Research Excellence Framework (REF) and Quacquarelli Symonds (QS) World University Rankings to assess the quality of UK universities and global universities respectively. 300 ResearchGate members from the supply chain

management field were selected. The study utilized correlation analysis to examine whether ResearchGate metrics demonstrate effectiveness on the researcher level in comparison with SciVal metrics. ResearchGate score can be an effective indicator for measuring individual researcher performance. Zainab & Wani (2016)³ Research Gate (RG) is a networking site for researchers, authors and those who are mainly involved in scientific research. The present study in this perspective has made an endeavor to explore the participation, contribution and impact of researchers at University of Kashmir (KU) and University of Jammu (JU) on the research and academic social network RG. Shrivastava & Mahajan (2015)⁴ investigated the relationship between the altmetric indicators from ResearchGate (RG) and the bibliometric indicators from the Scopus database, and also examined the relationship amongst the RG altmetric indicators themselves. RG is a rich source of altmetric indicators such as Citations, RGScore, Impact Points, Profile Views, Publication Views, etc. The data were collected from profile pages of all the members who had an account in RG under the Department of Physics, PanjabUniversity, Chandigarh (India). The study showed that most of the RG metrics showed strong positive correlation with the Scopus metrics, except for RGScore (RG) and Citations (Scopus), which showed moderate positive correlation. It was also found that the RG metrics showed moderate to strong positive correlation amongst each other.

4. OBJECTIVES OF THE STUDY

The following are the major objectives of this study

- ❖ To find out the ResearchGate RG Scores, Members and Publications of State Universities in India by State wise.
- ❖ To find out the research contributions by top ten State Universities.
- ❖ To analyze the ResearchGate (RG) scores by top ten State Universities.
- ❖ To investigate the Members by Top Ten State Universities.
- ❖ To examine the top ten departments along with their members.
- ❖ To find out the various types of documents by top ten departments with publications and authors of State Universities.

5. METHODOLOGY

The study focused only on State Universities in India which is listed in University Grants Commission (UGC) website. The data were extracted from ResearchGate website (<https://www.researchgate.net>)⁴ during August 2017. It was found that 29 States and 281 State Universities of ResearchGate in India is contributing their research, sharing the information, collaboration and discuss with the subject experts through ResearchGate. Further the data was analyzed to find out the ResearchGate RG Scores, Members and Publications of State Universities in India by State wise, Publications, ResearchGate (RG) Scores, Members, Top Ten departments along with their members and various types of documents by top ten departments with publications and authors of State Universities in India. The collected data were analyzed using simple calculations and ranking method.

6. DATA ANALYSIS

6. 1. Research Contributions of ResearchGate various State Universities in India

The study has analyzed the Research Contributions of ResearchGate various State Universities in India, and the same is given in Table 1.

Table 1: Research Contributions by ResearchGate various State Universities in India

| S. No. | Name of the State | No. of State Universities | RG Score | No. of Members | No. of Publications |
|--------|-------------------|---------------------------|----------|----------------|---------------------|
| 1 | Andhra | 25 | 14929.22 | 4480 | 9359 |
| 2 | Uttar Pradesh | 21 | 14070.88 | 3012 | 7459 |
| 3 | Maharashtra | 19 | 22143.43 | 6894 | 7673 |
| 4 | Tamilnadu | 19 | 42040.54 | 11220 | 20374 |
| 5 | Karnataka | 18 | 15353.47 | 5692 | 8289 |
| 6 | West Bengal | 18 | 33216.96 | 5045 | 16814 |
| 7 | Gujarat | 16 | 11616.89 | 4485 | 4608 |
| 8 | Bihar | 15 | 1366.24 | 314 | 736 |
| 9 | Rajasthan | 15 | 6211.22 | 1673 | 3480 |
| 10 | Haryana | 15 | 5815.13 | 2278 | 4273 |
| 11 | Madhya Pradesh | 14 | 4647.51 | 1292 | 2030 |
| 12 | Assam | 12 | 1327.56 | 1307 | 1101 |
| 13 | Orissa | 12 | 4993.05 | 1467 | 2132 |
| 14 | Jharkhand | 9 | 411.53 | 185 | 270 |
| 15 | Chhattisgarh | 9 | 2051.92 | 442 | 581 |
| 16 | Kerala | 9 | 7116.51 | 3460 | 6861 |

| | | | | | |
|----|-------------------|------------|------------------|--------------|---------------|
| 17 | Punjab | 8 | 11874.21 | 3267 | 6611 |
| 18 | Jammu and Kashmir | 7 | 5240.1 | 2116 | 1345 |
| 19 | Delhi | 6 | 4735.66 | 2284 | 460 |
| 20 | Uttarakhand | 6 | 3841.82 | 1118 | 1079 |
| 21 | Himachal Pradesh | 4 | 1804.9 | 785 | 2440 |
| 22 | Tripura | 1 | 28.82 | 10 | 7 |
| 23 | Goa | 1 | 1719.22 | 365 | 363 |
| 24 | Indore | 1 | 1524.44 | 313 | 863 |
| 25 | Chandigarh | 1 | 7090.67 | 1728 | 1214 |
| | Total | 281 | 225171.90 | 65232 | 110422 |

It is found from Table 1 that the Research Contributions of ResearchGate various State

Universities in India. It is shows that the Tamilnadu state has 11220 members of ResearchGate and placed in first position. It is followed by Maharashtra state has 6894 member and occupied second position. It is inferred that Tripura state got the least members in ResearchGate among the other State Universities by State wise in India.

6. 2. Research Contributions of Top Ten State Universities

The study has analyzed the Research Contributions of Top Ten State Universities in ResearchGate and the same is given in Table 2.

Table 2: Research Contributions by Top Ten State Universities

| S. No. | Description | Name of the Sate | No. of Publications | Percentage (%) | Rank |
|--------|---------------------------------|------------------|---------------------|----------------|------|
| 1 | Jadavpur University (Calcutta) | West Bengal | 6,602 | 18.16 | 1 |
| 2 | University of Calcutta | West Bengal | 5106 | 14.04 | 2 |
| 3 | University of Madras | Tamilnadu | 5015 | 13.79 | 3 |
| 4 | Anna University | Tamilnadu | 3685 | 10.13 | 4 |
| 5 | Annamalai University | Tamilnadu | 3350 | 9.21 | 5 |
| 6 | University of Rajasthan | Rajasthan | 2790 | 7.67 | 6 |
| 7 | Osmania University | Andhra | 2672 | 7.35 | 7 |
| 8 | University of Mysore | Karnataka | 2457 | 6.76 | 8 |
| 9 | SavirtibaiPhule Pune University | Maharashtra | 2342 | 6.44 | 9 |
| 10 | Andhra University | Andhra | 2341 | 6.44 | 10 |
| | | | 36,360 | 100 | |

Table 2 indications that the research contributions of top ten state universities in ResearchGate. It shows that the Jadavpur University (Calcutta), West Bengal has 6,602 (18.16%) highest number of ResearchGate publications and placed in first rank. Further, it is found that the University of Calcutta, West Bengal 5106 (14.04%), University of Madras, Tamilnadu has contributed 5015 (13.79%) publications and placed in second and third rank. It is inferred that last five listed state universities like Annamalai University, Tamilnadu 3350 (9.21%), University of Rajasthan, Rajasthan 2790 (7.67%), Osmania University, Andhra 2672 (7.35%), University of Mysore,

Karnataka 2457 (6.76%), SavirtibaiPhule Pune University, Maharashtra 2342(6.44%) and Andhra University, Andhra 2341 (6.44%) has less than 9% of publications, whereas the first eight State Universities has more percentage of publications in ResearchGate.

6. 3. ResearchGate (RG) Scores of Top Ten State Universities

The study was analyzed the ResearchGate (RG) Scores of top ten state universities in ResearchGate and the same is given in Table 3.

Table 3: ResearchGate (RG) Scores by Top Ten State Universities

| S. No. | Description | Name of the Sate | RG Scores | Percentage (%) | Rank |
|--------|--------------------------------|------------------|-----------|----------------|------|
| 1 | Jadavpur University (Calcutta) | West Bengal | 12,431.95 | 17.17 | 1 |
| 2 | University of Calcutta | West Bengal | 10,679.68 | 14.75 | 2 |

| | | | | | |
|----|---|---------------|------------------|------------|----|
| 3 | Anna University | Tamilnadu | 8,718.34 | 12.04 | 3 |
| 4 | University of the Punjab | Chandigarh | 7,173.43 | 9.91 | 4 |
| 5 | SavirtibaiPhule Pune University | Maharashtra | 6,789.28 | 9.38 | 5 |
| 6 | King Georges Medical University | Uttar Pradesh | 5,552.65 | 7.67 | 6 |
| 7 | University of Madras | Tamilnadu | 5,550.47 | 7.67 | 7 |
| 8 | Annamalai University | Tamilnadu | 5,497.45 | 7.59 | 8 |
| 9 | Punjab Agricultural University | Punjab | 5,193.27 | 7.17 | 9 |
| 10 | Cochin University of Science & Technology | Kerala | 4,807.98 | 6.64 | 10 |
| | | | 72,394.50 | 100 | |

It is found from Table 3 explains that the ResearchGate (RG) Scores of top ten state universities in ResearchGate. It clearly shows that the Jadavpur University (Calcutta), West Bengal has 12,431.95 (17.17) highest number of ResearchGate (RG) Scores and placed in first rank.

It is followed by University of Calcutta, West Bengal has 10,679.68 (14.75%) ResearchGate (RG) Scores and occupied second rank. It is inferred that Cochin University of Science & Technology, Kerala has 4,807.98 (6.64) less number of ResearchGate (RG) scores and placed in tenth rank among other state universities, whereas listed first five state universities has good percentage of RG scores in ResearchGate.

6. 4. ResearchGate Members of Top Ten State Universities

The study has analyzed the ResearchGate members of top ten state universities in India, and the same is given in Table 4.

Table 4 and shows that the ResearchGate members of top ten state universities in India. It is found that the Anna University, Tamilnadu has more members 3378 (21.19%) of ResearchGate in India and placed in first rank. It is followed by Savirtibai Phule Pune University, Maharashtra has 2117 (13.28%) members and occupied second rank. It is found that the University of the Punjab, Chandigarh has 1753 (11.00%) members and placed in third rank. It is inferred that University of Madras, Tamilnadu has 1147 (7.20%) members and placed in tenth in ResearchGate among the state universities in India.

Table 4:ResearchGate Members by Top Ten State Universities

| S. No. | Description | Name of the Sate | No. of Members | Percentage (%) | Rank |
|--------|---|------------------|----------------|----------------|------|
| 1 | Anna University | Tamilnadu | 3378 | 21.19 | 1 |
| 2 | SavirtibaiPhule Pune University | Maharashtra | 2117 | 13.28 | 2 |
| 3 | University of the Punjab | Chandigarh | 1753 | 11.00 | 3 |
| 4 | Jadavpur University (Calcutta) | West Bengal | 1407 | 8.83 | 4 |
| 5 | University of Calcutta | West Bengal | 1249 | 7.84 | 5 |
| 6 | University of Mumbai | Maharashtra | 1245 | 7.81 | 6 |
| 7 | Punjab Agricultural University | Punjab | 1244 | 7.81 | 7 |
| 8 | Bangalore University | Karnataka | 1233 | 7.74 | 8 |
| 9 | Centre for Environmental Planning and Technology University | Gujarat | 1165 | 7.31 | 9 |
| 10 | University of Madras | Tamilnadu | 1147 | 7.20 | 10 |
| | | | 15,938 | 100 | |

6. 5. Top Ten Departments along with Members

The study was analyzed the top ten departments along with members in ResearchGate and the same is given in Table 5

Table 5:Top Ten Departments along with Members

| S. No. | Description | Name of the Department | No. of Members | Percentage (%) | Rank |
|--------------|---|---|----------------|----------------|------|
| 1 | Anna University, Chennai | Department of Electronics and Communication Engineering | 325 | 17.23 | 1 |
| 2 | SavitribaiPhule Pune University | Faculty of Engineering | 308 | 16.33 | 2 |
| 3 | University of the Punjab | Punjab University College of Information Technology (PUCIT) | 210 | 11.13 | 3 |
| 4 | Jadavpur University (Calcutta) | Department of Physics | 129 | 6.84 | 4 |
| 5 | Centre for Environmental Planning and Technology University | M.Plan. Program in Planning | 296 | 15.69 | 5 |
| 6 | Bangalore University | Department of Microbiology and Biotechnology | 194 | 10.29 | 6 |
| 7 | Punjab Agricultural University | Department of Plant Breeding & Genetics | 141 | 7.48 | 7 |
| 8 | University of Mumbai | Department of Chemistry | 104 | 5.51 | 8 |
| 9 | University of Calcutta | Department of Botany | 98 | 5.20 | 9 |
| 10 | University of Madras | Department of Biochemistry | 81 | 4.29 | 10 |
| Total | | | 1886 | 100 | |

Table 5 directs that the state universities with top ten departments along with members of the same in ResearchGate. It explains that the “Department of Electronics and Communication Engineering” of Anna University, Chennai is toping with 325 (17.23%) members and placed in first rank. It is followed by “Faculty of Engineering” of Savitribai Phule Pune University, Pune with 308 (16.33%) members and occupied second rank. It further found that the “Department of Biochemistry” of University of Madras, Chennai has less number of 81 (4.29%)

members and placed in tenth rank in ResearchGate respectively.

6.6. Top Ten Departments along with Publications and Authors

The study was analyzed the state universities with top ten department along with publications and authors in ResearchGate and the same is given in Table 6.

Table 6: Top Ten Departments along with Publications and Authors

| S. No. | Description | Name of the Department | No. of Publications | Percentage (%) | No. of Authors | Rank |
|--------|--------------------------------|---|---------------------|----------------|----------------|------|
| 1 | Jadavpur University (Calcutta) | Department of Physics | 917 | 43.50 | 1059 | 1 |
| 2 | University of Calcutta | Department of Botany | 430 | 20.40 | 477 | 2 |
| 3 | University of Madras | Department of Biochemistry | 423 | 20.07 | 485 | 3 |
| 4 | University of Mumbai | Department of Chemistry | 229 | 10.86 | 265 | 4 |
| 5 | Anna University, Chennai | Department of Electronics and Communication Engineering | 66 | 3.13 | 45 | 5 |
| 6 | Punjab Agricultural University | Department of Plant Breeding & Genetics | 29 | 1.38 | 73 | 6 |

| | | | | | | |
|--------------|---|---|-------------|------------|-------------|----|
| 7 | Bangalore University | Department of Microbiology and Biotechnology | 14 | 0.66 | 48 | 7 |
| 8 | Savirtibai Phule Pune University | Faculty of Engineering | 0 | 0.00 | 0 | 8 |
| 9 | University of the Punjab | Punjab University College of Information Technology (PUCIT) | 0 | 0.00 | 0 | 9 |
| 10 | Centre for Environmental Planning and Technology University | M.Plan. Program in Planning | 0 | 0.00 | 0 | 10 |
| Total | | | 2108 | 100 | 2452 | |

Table 6 shows that the state universities with top ten departments along with publications and authors of the same in ResearchGate. It indicates that the top department “Department of Physics” of Jadavpur University (Calcutta), West Bengal has 917 (43.50%) highest publications from 1059 authors and placed in first rank, which is followed by “Department of Botany” of University of Calcutta West Bengal has 430 (20.40%) publications from 477 authors and “Department of Biochemistry” of University of Madras, Chennai has 423 (20.07%) publications from 485 authors occupied second and third rank. It is inferred that last three state universities has (0) number of publications in ResearchGate among the state universities in India.

7. CONCLUSION AND RECOMMENDATIONS

Social Networking Sites playing the important role in communicate and share the information among one to one, one to groups and one to worldwide. The Academic Social Network Sites communicates and shares the information about research activities among academics. In very special the ResearchGate playing important role in sharing and promoting research activities among research scholars in world wide. Indian Universities are started taking initiatives to participate in ResearchGate and this paper analysed the contributions of Indian State Universities. The study recommends that Andhra and Karnataka State Universities should contribute more number of members and research papers in ResearchGate for the better visibility in world wide.

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