

Research Gate: An Ideal Epitome to Academic Social Networking Sites

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(Received 3 December 2018; Revised 26 December 2018; Accepted 14 January 2019; Available online 4 February 2019)

Abstract - Social networks sites performing wildly as a platform for various fields like academic, research, business and the trends show active users of social networking communities are growing rapidly and the exchange of information with stakeholders can be done quickly. SNS now has a good sound among scholars. Among the popular SNS there is Academia.edu, Research Gate, Good readers, Quora Digest, Face book, Youtube, LinkedIn, Twitter, Whatsapp, etc. have an attractive power to getting people's attention. There are some disadvantages, but SNS has many advantages and use the latest technology. In this generation, the SNS expands learning curiosity of users. Most researchers and students take time to learn, discover, share, appreciate, criticize and discuss new ideas over time. This document explains the impact of social networks on academic exchanges and how Research Gate uses it to participate in technology-based academic communication. According to this study, the Q & A Research Gate platform attracts more users than other SNSs platform. Most of the communication is in the science discipline, especially in the field of medicine.

Keywords: Research Gate, Epitome, Social Networking Sites

I. INTRODUCTION

With the immense development of the internet that occurs in everyday life, the methods and methods of communication have made apparent changes. Traditional communication has been gradually changed through communication through technical tools. Academic Social networking Sites which are defined within the limits of social networks are the heart of academic communications. Social networking sites (SNS) like Facebook, Twitter and YouTube are popular in the category. It is suitable for individuals and organizations to create and communicate information, share ideas, interests and social communication when dealing with other users (Tess, 2013, Ellison & Boyd, 2007). Many people, especially adults, use SNS to interact with their friends, colleagues, and family (Lenhart *et al.*, 2010). Social networking Sites (SNS) attracts the attention of academicians and academic researchers to their research and experiences. These inspired academics and researchers use SNS for academic communication.

II. OBJECTIVES OF THE STUDY

The main objective of the study is to explore the pattern of academic communication in the Social Networking age, and how Research Gate helping the same. Apart from specifically, the study is aimed at the following.

1. To find out the SNS used for Academic Purpose or Scholarly Communication.
2. What extent Research Gate (RG) helps in academic communication.
3. Subject coverage in RG.
4. Number of users who collaborating in RG.
5. To offer the suggestion to Researchers, how to RG can use personally and professionally.

III. METHODOLOGY

To meet the objectives of the present study the following methodologies were used; a) Literature review b) Website analysis. The basic methodology adopted for the preparation of this study was to conduct a literature survey. Current articles from primary and secondary periodicals were assessed and reviewed related to our topic and evaluated. A study of various similar ASNS Websites like Research Gate, Academica, Quora, Good reader, etc., for knowing their strength, weakness and other characteristics have been made to make the view more clear and significant. We categorized Social Networking Sites into Formal and Informal concerning the type of interaction. Formal SNS are again classified into Academic and Professional. Research Gate is one of the SNS which is widely used for academic purpose especially for connects, collaborates, and keeps abreast with research.

IV. SOCIAL NETWORKING SITES

The current generation is endangered by various electronic devices such as smartphones, laptops, tablets, etc. It is very difficult to remain without a device because it makes our daily life with ease (Monchi, Shamim Aktar, 2018). The internet has made a simple way of interaction between people. The growth of social networks is strongly influenced by the development of technologies and the increasing performance of internet all over the world. Social Networking Users benefits from an expanded SNS and the ability to connect and maintain with others. Social networking, the popular online activities around the world, and social media companies such as Face book, Twitter and Weibo have a huge impact on online interaction and digital marketing. Statistics show that 54.65% of the population uses the Internet (source of global internet statistics). The impression of social networks around the world is increasing. In 2017, 71 percent of internet users were social network users and these figures are expected

to grow. Social networks are one of the most popular online high-activity activities. Fig.1 shows hike in social media users worldwide from 2010 to 2017 (in billions).

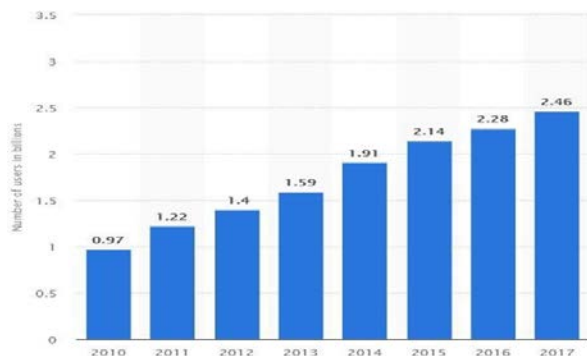


Fig. 1 Social media users worldwide from 2010 to 2017 (in billions)
(Source from www.statista.com)

This statistic shows the number of social media users worldwide from 2010 to 2016. It is estimated that in 2019, there will be around 2.77 billion social media users around the globe, up from 2.46 billion in 2017.

Danah M. Boyd & Nicole B. Ellison (2008) identifies social network site SixDegrees.com launched in 1997; it allowed users to create profiles, list their friends and one year later SixDegree.com introduced surf the friends lists. It was one of the first manifestations of social networking websites in the format now seen today. SNS is the online platform for self-development, easy communicate, academic & research... “Networking” emphasizes relationship initiation, often between strangers currently, different types of social network sites came to easily interact with people. Fig.2 explain the types.



Fig.2 Types of Social Network Sites

SNS are divided into two parts: formal and informal. All informal social networks display a similar label for their relationship, but different names such as friends, contacts, and fans. It creates a focus for people such as information on politics, sports, art, work, online discussion, text sharing, video, audio, speech, weather, games, memes, awareness and other activities. Formal has two divisions, academic and professional. People who use their professional or academic social networks do not use common social networks. First, let's take a look at SNS professional.

A professional network is a type of social network that focuses exclusively on professional interactions and relationships rather than personal and non-business interactions. SNS connects professionals around the world to make them more productive and more efficient. It's the perfect place for professional news, creative ideas, immediate solutions, job alerts and other professional elements. Aktar Munshi, Shamim remarks in his study Titled Social Networking Sites, the Lifeline among the Students and Librarians “Through SNSs, librarians were providing several information services to their users e.g. new arrivals information, newspaper clipping services, schedule of orientation programmes, national and international conferences information, job notifications, interview tips, etc.” He agreed that SNSs were effective media which helped to offer a platform where they could study collaboratively with their friends and educators. Beside all these, a large number of students strongly believed that SNSs helped to increase e-learning habits among the university students and played a vital role for the development of future education system. Now, social networks have been created for all professional categories such as agriculture, education, medicine, jurisprudence, librarianship and more. Some examples of professional sites are LinkedIn, Lislink, Educators CONNECT, Sermo, MyCase and others.

V. ACADEMIC SOCIAL NETWORKING SITES (ASNS)

Social networking sites can seem frivolous and pointless to academics, but specialized academic social networking sites are gaining popularity in certain disciplines and with certain faculty opinioned by Steven, Ovadia (2014). Academic SNS provides a very useful interaction between users, mainly readers, young people, researchers and academics. Academic performance now depends on the use of social networking sites for immediate response. Here, SNS provides the user with different types of interactive academic sites. Statistics show that the maximum number of SNS users is between 18 and 35 years old. Eli Quintish, American science journalist; Academic sites refer to our research such as an article, a journal, statistics, books, projects, conferences, etc. Research Gate, Academia, Good readers, Quora, ORCID and others are the best examples of ASNS. This article explores ASNS Research Gate.

VI. RESEARCHGATE

Research Gate professional platform for scientists and researchers. Online website: similarweb.com given the first rank to RG in ‘science’ category. More than 15+ million members were joined from 193 countries. Research Gate claims that they have 90+ million monthly visitors, Total of 100+ million publication, 140 million connections between scientists, 68 Nobel Prize winners contribute on RG platform. It gives Chemistry, Biology, Medicine, Engineering, Computer Science, and

Agricultural Science Publisher & unpublished papers, conference paper, presentations, posters, data, and other so searching can easily find their needs. Not only generous paper to us its aid to our creative thoughts. So we can upload our publications. Research Gate giving better access, sharing code, data, & videos, peer review (pre-pub), publish, outreach, profiling & networking, comment, peer-review (post-pub), measure impact, and assess researcher(s).

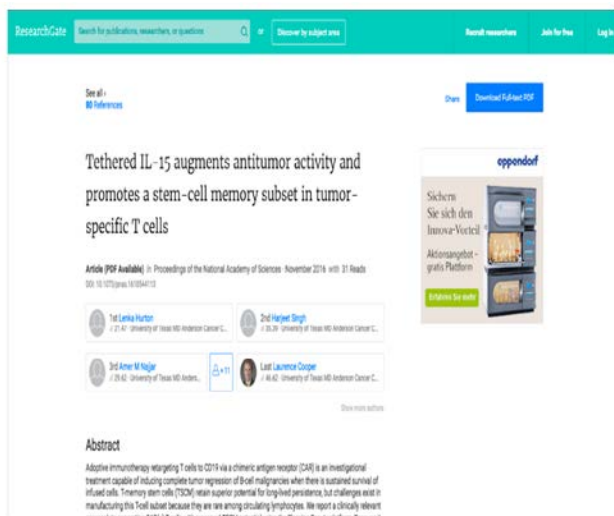


Fig. 3 Research Gate –Homepage

A. How Can Make Use of Research Gate

1. Research Gate as a Publishing Platform: RG has been dubbed as “Facebook for scientists” (What is Research Gate, 2018). Researchers have researched scientists to create group effort, sharing, and contact among potential researchers. Analysts share their ideas with others by uploading their creations from RG.

So the ideas are exchanged and it creates new ideas too. As an academic social network, a large number of researchers make use of Research Gate for their research because of this is an easy-to-use interface. The Research Gate team eliminates the hassle of the journal authentication systems. Moreover, it uses an aggressive email marketing system.

This is the platform for open access; the majority of academicians will admit that it forms a large part of their research. Research Gate lets everyone share different types of content visibly, store it in confidence, and share it privately. The person who upload the content are responsible for the document copyright, so it’s important that the concern person or content up-loader check in advance that they have the necessary rights to do this. In general, to share work on Research Gate will depends upon the rights hold someone in their content, which may be determined by a concurrence with publisher.

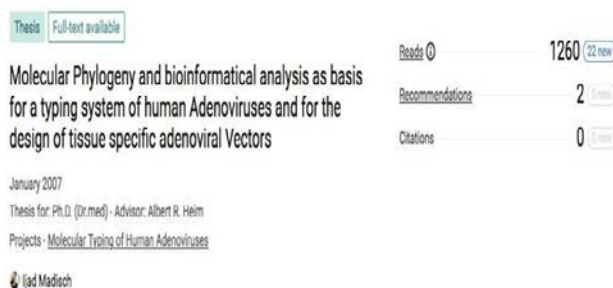


Fig.4 Screen shot- Details of published data

2. Research Gate as Research Assistance: Research Gate is centered on research items - whether it is adding to your own creation and inventiveness, finding interesting research in your field, commenting on importance and research or evaluating others' works. Everything you need to know about research materials in Research Gate can be found here, how to find, add, edit and remove research items, create DOI, add statistics and delete. We also provide some useful guidelines about copyright issues.

3. Research Gate as an Interactive Tool: RG Q & A platform where we can communicate, ask questions, and get expert’s feedback in the field of care. It's a great place to share knowledge, connect with researchers and identify yourself as an expert in your field. Here you get as many answers from Q& A and get good advice, asking for the best question and asking for the best answers. Q & A recommendations for research to provide the most relevant discussions on related domain with unique skills and expertise. Keep up your research skills and expertise up to date to get better recommendations. Researcher can seek and clarify doubts by asking latest questions in your field, it will update frequently on the questions you follow and the questions you asked.

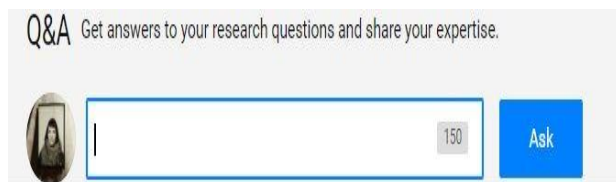


Fig.5 Screen shot- Research Gate Q & A Platform

4. Research Gate as Collaborator: RG provides a platform called ‘lab’, this is a group of scientists led by a senior researcher, who conduct experiments and research together in a particular topic. The researcher can now quickly set up your lab on Research Gate to showcase the work which is going on. The main advantage if lab platform are:

- a. Increase the visibility of your lab's research
- b. Attract scientists for your team
- c. Easily collaborate with other labs



Fig. 6 Screen shot- Research Gate 'Lab' Platform

5. *Research Gate as Research Enhancer:* The 'Stats tab' in RG shows in-depth statistical data about your research to help to measure the attention of the work is getting online. It showing the traffic overview, citation& impact factor for our uploaded article. Patron can see how often your work has been read, cited, and recommended, and by whom. It also provides details like which country and institutions your readers come from, as well as which of your publications are read most each week. The scores tab shows the *h*-index and RG score of a researcher these are two ways to measure the individual impact in Research Gate. The *h*-index is a simple way to measure the impact of your research based on citations. And the RG score metric, which will give you a scientific reputation based on how your published research and contributions on Research Gate are received by peers.

The RG Score measures scientific reputation depending on how the work is received by peers. We believe the researchers are the best judges of a work, and consider that a person's research published or not, is eligible for credit. With this in mind, RG Score is calculated based on any contribution in Research Gate or add to your profile, such as published articles, unpublished research, projects, questions, and answers.



Fig.7 Screen shot- Research Gate Individual / Institutional Score

6. *Research Gate as a Marketing Tool:* Research Gate is the specialized platform for academic interaction, at the same time we can make use Research Gate as Advertising Solutions. When engaging with scientific content, it allows reaching the target audience with the right message. We can find researchers from every field including life science, biotechnology, chemistry, medicine, engineering, computer science and mathematics.

Ads automatically identify the targeted members based on their talent and behavior, or placed on publications to reach significant audiences while they research. The researcher and the Institution can create benefit; to introduce a new product, a suitable white paper or a demonstration video to the audience? It will share Research Gate Institution page, drive traffic through our ads or emails. Job seekers can also

use RG as an employment site.

VII. ANALYSIS OF THE STUDY

This study was intended to collect the details on the Academic Social Networking Sites. Research Gate is taken as a sample and try to identify the factors influenced to researchers in order to the use pattern of it. The data is collected from the official website of Research Gate (www.researchgate.net) during 2018 October month. The analysis and interpretations are presented below with the help of illustrations like tables and figures.

A. Member statistics of RG

TABLE I YEAR WISE STATISTICS OF RESEARCH GATE USERS

Year Wise Statistics of RG Users	No of RG Account Holder
2008	10,000.00
2009	1,00,000.00
2010	5,00,000.00
2011	10,00,000.00
2012	20,00,000.00
2013	30,00,000.00
2014	50,00,000.00
2015	80,00,000.00
2016	1,10,00,000.00
2017	1,50,00,000.00

Research Gate was launched in 2008. It has successfully achieved their milestone by these 10 years. At the start of the day, there were only 10000 users only using RG but yearly the number of users has increased, and now fifteen million users are using and utilizing. Members statistics are shown in Table I.

B. Subject Wise Distribution

Table II shows the subject wise distribution of RG content. The analysis shows that the subject Medicine accounts for the highest number (15 %). The contribution of Biology and Engineering to RG is the same amount (14 %).

The subjects like Chemistry, Computer Science, and Physics are contributed 7%, 6% and 4 % respectively. The analysis reveals that scholarly communication of pure and applied science gained momentum and a steady growth can be observed.

TABLE II SUBJECT WISE DISTRIBUTION OF RESEARCH GATE

Subject	Percentage
Medicine	15%
Biology	14%
Engineering	14%
Chemistry	7%
Computer Science	6%
Physics	4%
Other	40%

C. Top 10 Topic Wise Followers

Subject wise Research Gate is useful to us in all scientific topics. The image is given below for the most popular used topics.

TABLE III TOP 10 TOPIC WISE FOLLOWERS OF RESEARCH GATE

Top 10 Topic wise Followers	No. of Follower	Ranking
Molecular Biology	540405	1
Mechanical Engineering	435867	2
Cell Biology	400842	3
Medicine	391158	4
Biotechnology	390916	5
Electrical Engineering	353656	6
Electronic Engineering	302558	7
Civil Engineering	297822	8
Artificial Intelligence	287561	9
Genetics	273748	10

VIII. FINDINGS OF THE STUDY

The analyses have brought forth a number of useful results. The major findings evolved out of the study are summarized. The main purpose of the study was to find out how much useful the Research Gate in the context of scholarly communication. Findings are highlighted below:

1. The literature review reveals Research Gate and Academia are popular among Academic Social Networking Sites. RG is more like a repository + Collaboration platform Vs. Academia.edu which is

- more focusing on repository.
2. All facilities provided by Research Gate are purely free based whereas to get the facilities offered by Academia.edu you have to pay periodically. This should be the main reason for the popularity of RG.
3. 60 % of the scholarly communications is in the pure and applied science.
4. In Topic wise Medicine cover 15%, preceded by Biology and Engineering with 14%.
5. There were just over 10000 users in 2008, but now 15000000 people are using Research Gate. It is found that average of 1.5 million of new members in every single year.
6. The study shows Molecular Biology has a large number of followers followed by Mechanical Engineering, etc.
7. It is identified through the study; RG is best Academic Social Networks which offering platform to marketing and job hunting to their users with ease.

IX. CONCLUSION

This paper attempts an examination of the emerging trends surrounding ASNS. Study shows that the technical peculiarities and infrastructure of ASNS impacts user. Research Gate is a powerful tool to promulgate the information and share it with the concerned audience. It regularly updates and facilitates dissemination of information to its users with more attractive and informative way. Not only for an individual like researchers, can academicians, or scientists but also institution also practices ASNS for better communication.

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