USE OF GOOGLE SCHOLAR: A CASE STUDY OF FACULTY MEMBERS OF SCIENCE AND TECHNOLOGY, GULBARGA UNIVERSITY, KALBURGI.

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Abstract :
This paper deals with the Use of Google Scholar: A case study of faculty members of science and Technology, Gulbarga University, Kalburgi. This paper provides in summary form the important findings and suggestions/ recommendation to improve and useful ness of the faculty members in a university environment and its features, & benefits.

Keywords : Use of Google Scholar, Faculty Members, University

Introduction :
The Google scholar as it is better known has been perceived to be of several dimensions to its users, a medium of intercommuni- cation to share information and work collaboratively, a means of publishing globally and a near exhaustive repository of information. The Google scholar plays an important role in teaching, learning and research processes. The usefulness of Google Scholar lies in its ability to provide access to electronic information resources of library everywhere and at all times. It removes the constraints of time and space and also the

dependence on conventional sources for learning. Faculty members, research scholars of universities of Karnataka increasingly depend on the Internet for their teaching / research activities and for information on recent / current developments in their study areas than on conventional sources.

Objectives of the Study:

The Study is primarily undertaken with the primary objective of knowing the faculty members Use of Google Scholar.

Major objectives of the study are to know:

a) The characteristics of study Population.
b) The access to Google Scholar at home, Department virtual library and Internet cafe.
c) Knowledge and use of Google scholar and their relationship with gender, use of Google Scholar and Faculty.
d) Frequency of use Google Scholar and purpose of using Google Scholar.
e) Using of simple and advance search in Google Scholar.
f) Areas of interest in using Google scholar.
g) Problems in use of Google scholar.

Methodology and Study Population:

Methodology:

Background reading of literature on the topic and research methods was undertaken to have a clear idea of the topic and research and to identify the appropriate research methods to be followed. Questionnaire method has been employed to collect the information directly from the faculty members of 13 Departments of Science and Technology, Gulbarga University, Kalburgi.

The data rewired for the study can be collected through questionnaire. But these methods were not suitable and also costly both in terms of time and money. Hence, it was decided to collect the data through a questionnaire.

Survey of the published literature on the topic was carried out. Secondary source were consulted to identify the literature on topic. Internet was searched using different search engines like Google, to identify the relevant literature on the topic. Using Google Scholar, LISA, JCCC@UGC-INFONET. A retrospective search on topic was undertaken.

The Survey consisted of 26 Questions in a verity of Qualitative and Quantitative formats. These include dichotomous and open-ended Questions, scale rating, and ranking based Questionnaire was given to faculty members of science and technology, Gulbarga University, Kalburgi.

Study Population:

The study population consists of the total strength of the faculty members is 58 of 13 science and technology departments at Gulbarga University, Kalburgi. The faculty members are chosen as survey population. All the faculty members of science and technology the faculty members are divided into a 2 homogenous group's viz., science and technologies.

Discipline	Total No Of Faculties	No. Of Questionnaires Distributed	Response Rate (%)
Science and Technologies	58	54	49(90.74%)

Limitations :

There are several limitations in conducting this study.

a) Questionnaire method is used instead of observation and interview because these are costly both in terms of money and time.

b) Data collection is difficult because many of the respondents are not ready to fill up the Questionnaire.

Operational Definitions of Concepts:

Use: - The act using, the application of employment of something for a purpose.

Scholar: - Learned person; who learn holder of scholarship; scholarly.

Google scholar: - Is a freely accessible web search engine that indexes the full text of scholarly literature across on array of publishing format and disciplines– (wikipedia, the free encyclopedia).

Features of Google Scholar :

- Title connections to the theoretical of the article, or when accessible on the web, the total article.
- Related Articles discovers different papers that are like articles in this gathering.
- Library Links finds libraries which have a physical duplicate of the work.
- Group of discovers different articles incorporated into this gathering of insightful works, perhaps fundamental, which you might almost certainly get to. Models incorporate preprints, abstracts, meeting papers or different adjustments.
- BL Direct – Purchase the full content of the article through the British Library.

Benefits of Google Scholar:

- Find papers, abstracts and citations easily.
- Learn about key papers in any area of research and others.
- Search diverse sources from one convenient place.
- Easy to access the resources.
- Fast and simple to use and understand.
- OpenURL link resolves provide seamless access to full-text content that is available through institutional subscriptions.
- Breadth of coverage, many unique topics.
- Effective way to find or verify citations.

Advantages of Google Scholar:

Google Scholar provides most of the advantages of other citation indexes. Google Scholar allows researchers to trace what articles are cited by a particular article and where the article has been cited elsewhere. This can be useful for developing a bibliography or tracing the development of a topic or Issue on the Web.

Disadvantages of Google Scholar:

Google Scholar is a beta version and an experiment that has some limitations:

- There is inconsistency in citation styles (i.e. spelling variations, incomplete citations).
- It uses author initials, so several different authors with the same last name and initials cannot be differentiated.
- Many scholarly periodicals and magazines are not indexed.
- Limited "advanced search" features: no nested Boolean searching, explode features, subheadings, or publication-type limits.

Characteristics of the Study Population:

Table-1 shows the Department wise distribution of faculty members. The maximum number of repondents belongs to mathematics,14.3% (N=7), it is severally by Bio-chemisry, Microbiology, and Physics 10.2% (N=5), and Statistcs and Zoology 8.2%(N=4).

Table- 1: Department wise distribution of Faculty Members

Department	Frequency	Percent	Valid Percent	Cumulative Percent
Applied Electronics	3	6.1	6.1	6.1
Biochemistry	5	10.2	10.2	16.3
Biotechnology	3	6.1	6.1	22.4
Botany	3	6.1	6.1	28.6
Chemistry	4	8.2	8.2	36.7
Computer Science	2	4.1	4.1	40.8
Environmental Science	4	8.2	8.2	49.0
Mathematics	7	14.3	14.3	63.3
Microbiology	5	10.2	10.2	73.5
Physics	5	10.2	10.2	83.7
Statistics	4	8.2	8.2	91.8
Zoology	4	8.2	8.2	100.0
Total	49	100.0	100.0	

Table-2 shows the Genderwise distribution of faculty members. The study population comprises of faculty members of Science and Technology depatments at Gulbarga University, Kalburgi. The analysis of data by Gender indicates that 85.7%(N=42) are male and 14.3%(N=7) are female.

Table 2: Gender wise distribution of Faculty Members

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	42	85.7	85.7	85.7
Female	7	14.3	14.3	100.0
Total	49	100.0	100.0	

Table-3 shows the Academic status of faculty members. The maximum number of faculties belongs to professor 61.2%(N=30), it is severally Associate professor 36.7%(N=18) and Assistant professor 2.0%(N=1).

Table 3: Academic Status of Faculty Members

Academic Status	Frequency	Percent	Valid Percent	Cumulative Percent
Professor	30	61.2	61.2	61.2
Professor Associate	18	36.7	36.7	98.0
Professor Assistant	1	2.0	2.0	100.0
Total	49	100.0	100.0	

Table-4 shows the responsers to the question Are you from? The faculties are belongs to urben area 49.0%(N=24), Rural area 44.9%(N=22) and total is 93.9%(N=46), missing 6.1%(N=3).

Table 4: Background of Faculties

Are you from	Frequency	Percent	Valid Percent	Cumulative Percent
Rural	22	44.9	47.8	47.8
Urban	24	49.0	52.2	100.0
Total	46	93.9	100.0	
Missing System	3	6.1		
Total	49	100.0		

The **Table-5** shows the number of scholarly articles are published in Google Scholar. The 10 number of scholarly articles published to 5 faculties there percentage is 10.2%, 60 number of Scholarlly articles published to 3 faculties there percentage is 6.1%, 70 number of articles published to 2 faculties there percentage is 4.1% and 135 number of articles published to one faculty his percentage is 2.0%. Total percentage 83.7%(N=41) and missing 16.3%(N=8).

Table 5: Number of Scholarly Articles

Number of Scholarly Articles	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	2.0	2.4	2.4
3	1	2.0	2.4	4.9
5	1	2.0	2.4	7.3
6	1	2.0	2.4	9.8
7	1	2.0	2.4	12.2
10	5	10.2	12.2	24.4
11	1	2.0	2.4	26.8
12	1	2.0	2.4	29.3
20	2	4.1	4.9	34.1
23	1	2.0	2.4	36.6
24	1	2.0	2.4	39.0
25	1	2.0	2.4	41.5
28	1	2.0	2.4	43.9
30	2	4.1	4.9	48.8
35	2	4.1	4.9	53.7
36	1	2.0	2.4	56.1
40	1	2.0	2.4	58.5
50	2	4.1	4.9	63.4
53	1	2.0	2.4	65.9
55	1	2.0	2.4	68.3
56	1	2.0	2.4	70.7
60	3	6.1	7.3	78.0
64	1	2.0	2.4	80.5
65	1	2.0	2.4	82.9
67	1	2.0	2.4	85.4
70	2	4.1	4.9	90.2
75	1	2.0	2.4	92.7
85	1	2.0	2.4	95.1
102	1	2.0	2.4	97.6
135	1	2.0	2.4	100.0
Total	41	83.7	100.0	
Missing System	8	16.3		
Total	49	100.0		

Table-6 shows use of Goolge Scholar by faculty members. The maximum number yes respondents is 89.8%(N=44) and No respondents is 10.2%(N=5).

Table -6: Use of Google Scholar by Faculty Members

Use of Google Scholarly	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	44	89.8	89.8	89.8
No.	5	10.2	10.2	100.0
Total	49	100.0	100.0	

Table-7 shows frequency of use Google Scholar. Frequency of use Google Scholar by Daily by 44.9%(N=22), Twice in a week by 24.5%(N=12), Once in week by 14.3%(N=7), Other by 4.1%(N=2) and monthly by 2.0%(N=1). Tatal respondents by 89.8%(N=44) missing 10.2%(N=5).

Table -7: Frequency of use of Google Scholar

How Often	Frequency	Percent	Valid Percent	Cumulative Percent
Daily	22	44.9	50.0	50.0
Once in a week	7	14.3	15.9	65.9
Twice in a week	12	24.5	27.3	93.2
Monthly	1	2.0	2.3	95.5
Other	2	4.1	4.5	100.0
Total	44	89.8	100.0	
Missing System	5	10.2		
Total	49	100.0		

4.2 Access to Google Scholar :

Table-8 shows place of use of Goolge Scholar. The majarity of place of use of Google Scholar in Department by 70.5%(N=43), At home 26.2%(N=16), and Internet cafe and Virtual library 1.6%(N=1).

Table 8 : Place of use of Google Scholar

Place of Use	Responses		Percent
	N	Percent	Causes
Internet Cafe	1	1.6%	2.3%
Virtual Library	1	1.6%	2.3%
Department	43	70.5%	97.7%
At home	16	26.2%	36.4%

4.3 Frequency purpose of using Google Scholar:

Table-9 shows purpose of using Google Scholar. The purpose of search scholarly articles by 88.6%(N=39), find articles by 63.6%(N=28), find citation received by documents by 40.9%(N=18), to receive E-mail alerts by 29.5%(N=13), find different version of articles by 20.5%(N=9), find summeries of documents 15.9%(N=7),find library resoures with libarry link by 13.6%(N=6),and use british library direct service by 2.3%(N=1).

Table-9: Purpose of Using Google Scholar

Purpose	Responses	Percent of
	N	Causes
Search Scholarly articles	39	88.6%
Find summaries of Documents	7	15.9%
Find citations received by documents	18	40.9%
To receive E-mail alerts	13	29.5%
Find related articles	28	63.6%
Find different versions of articles	9	20.5%
Use British Library Direct Service	1	2.3%
Find Library Resources with Library Link	6	13.6%

Table-10 shows suggest PG/Research Scholar to use Google scholar. The suggest PG/Research scholar to use Google scholar in always by 61.2%(N=30), some times by 26.5%(N=13), only when they ask by 2.0%(N=1),Tatal 89.8%(N=44) and missing is10.2%(N=5).

Table 10: Suggest PG/Research Scholars to use Google Scholar

Suggest PG Research scholars to use Goog Scholar	Frequency	Percent	Valid Percent	Cumulative Percent
Always	30	61.2	68.2	68.2
Sometimes	13	26.5	29.5	97.7
Only when they ask	1	2.0	2.3	100.0
Total	44	89.8	100.0	
Missing System	5	10.2		
Total	49	100.0		

Table-11 shows use of e-mail alerts. Use of e-mail alerts yes respondents by 36.7%(N=18), No respondents is 53.1%(N=26). Total 89.8%(N=44) missing by 10.2%(N=5).

Table 11 : Use of E-mail Alerts

Use of E-mail Alerts	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	18	36.7	40.9	40.9
No	26	53.1	59.1	100.0
Total	44	89.8	100.0	
System	5	10.2		
Total	49	100.0		

4.4 Use of Simple and Advance Search in Google Scholar:

Table-12 shows Use of Basic/simple search. Use of simple search to yes respondents by 83.7%(N=41), No respondents by 6.1%(N=3), total 89.8%(N=44) and missing 10.2%(N=5).

Table 12: Use of Basic/Simple Search

Use of Basic / Simple Search	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	41	83.7	93.2	93.2
No	3	6.1	6.8	100.0
Total	44	89.8	100.0	
System	5	10.2		
Total	49	100.0		

Table -13 shows use of advance search. Use of advance search by yes respondents by 59.2%(N=29), no respondents by 28.6%(N=14), total 87.8%(N=43) and missing 12.2%(N=6).

Table 13: Use of Advance Search

Use of Basic / Simple Search	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	29	59.2	67.4	67.4
No	14	28.6	32.6	100.0
Total	43	87.8	100.0	
System	6	12.2		
Total	49	100.0		

Table-14 shows that use of advance search in Google Scholar. The advance search features are they publication (by journal name) by 64.3%(N=18), Author by 60.07%(N=17), with all of the words by 50.0%(N=14), with the exact phrase by 46.4%(N=13), All the above by 42.9%(N=12), with at least on words by 35.7%(N=10), where my words occur by 17.9%(N=5), Date by 14.3%(N=4), and without the words, all of the above, and others by 3.6%(N=1).

Table 14: Use of Advance Search in Google Scholar

Advance Search Features	Responses N	Present of Cases
With all of the words	14	50.0
With the exact phrase	13	46.4
With at least one of the Words	10	35.7
Without the words	1	3.6
Where my words occur	5	17.9
All of the above	1	3.6
Author	17	60.7
Date	4	14.3
Publication (By Journal Name)	18	64.3
All of the above	12	42.9
Other	1	3.6

4.5 Areas of Interest in using Google Scholar:

Table 15 belongs to the searching information : Aresa. The searching information areas are the searching information in all the areas by 47.6%(N=20), biology, life science and environmental science by 42.9%(N=18), Chemisty and materials sciences by 28.6%(N=12), En gineering, Computer Science and mathemetics by 28.6%(N=12), Medicine, Pharmacology and vetenrary sciences by 21.4%(N=9) and Physics, Astronomy and Planetary Science by 16.7%(N=7).

Table 15: Searching Information: Areas

Areas	Responses N	Present of Cases
Search information in al lthe areas	20	47.6
Biology, Life Sciences &Environmental Sciences	18	42.9
Chemistry and Materials Science	12	28.6
Engineering, Computer Science and Mathematics	12	28.6
Medicine, Pharmacologyand Veterinary Science	9	21.4
Physics, Astronomy and Planetary Science	7	16.7

Table-16 shows the numbers of results. The numbers of result 10 by 24.5%(N= 12), and 20 by 59.2%(N=29) total 83.5% (N=41) and missing is 16.3%(N=8).

Table -16: Number Results

Use of Basic / Simple Search	Frequency	Percent	Valid Percent	Cumulative Percent
10	12	24.5	29.3	29.3
20	29	59.2	70.7	100.0
Total	41	83.7	100.0	
Missing System	8	16.3		
Total	49	100.0		

4.6 Problems in use of Google Scholar:

Table 17 belongs to the problems in using google scholar. The problems are slow speed by 47.4%(N=18), Downloading problem by 36.8%(N=14), Irrrelevant information by 18.4%(N=7), finding relevant information, Lack of training an information overload by 15.8%(N=6).

Table 17: Problems in using Google Scholar

Problems	Responses N	Present of Cases
Slow Speed	18	47.4
Finding relevant information	6	15.8
Lack of training	6	15.8
Information overload	6	15.8
Downloading	14	36.8
Irrelevant information	7	18.4

Summary of Findings:

a) Study population comprises of faculty members in various departments at Gulbarga University, Kalburgi. The analysis of data by gender indicates that 85.7 %(N=42) are male and 14.3 %(N=7) are females.

b) Majority of faculties have no access to Google scholar at home, more than the have access at department 70.5 %(N=43).

c) The Use of Google Scholar as indicates by mean value is higher among male 85.7 %(N=42) when compared to female 14.3 %(N=7).

d) Frequency of use Google measured Daily, twice in week, once in week, monthly. Frequency of use of Google Scholar by Daily 44.9%(N=22); Twice in week by 24.5%(N=12); once in week by 14.3%(N=7); monthly by 2.0%(N=1) and others by 4.1%(N=2).

e) Purpose of using Google Scholar is search scholarly articles by 88.6 %(N=39); find related articles by 63.6 %(N=28); and find citation received by documents by 40.9 %(N=18) and others.

f) Problems in using Google scholar in faculties do face the slow speed by 47.4% (N=18); by downloading 36.8% (N=14); irrelevant information by 18.4% (N=7); and facing other problems by 15.8 (N=6).

Suggestions:

Based on the findings, recommends the following in the form of concussion to promote the use of Google scholar in a University environment.

a) There are several opportunities for accessing the Google Scholar. One can have access the Google scholar at department or at home, if essential, University computer center, cyber café and virtual library. Facilities for accessing Google Scholar go a long way in the use of Google scholar. University authorities should strengthen the central facilities such as University Computer center, University library and departments for accessing Google scholar by strengthening the hardware, software and human ware for better use of e-resources.

b) The conclude of the study showed the fact that the facilities are not aware of the facilities available for accessing e-resources on the main campus. Therefore, university library should launch programs to orient the facilities available for accessing Google scholar in the University campus.

c) Since, the awareness of Google Scholar among faculty members irrespective of gender age and Faculties is low, so there is a need for user awareness programs in creating awareness of Google Scholar among faculty members.

d) The knowledge of Google Scholar among faculty members irrespective of gender age and faculty is low. Therefore, is a need for short-term and long-term programs aimed at improving the knowledge of faculties about Google Scholar? As the knowledge of Google Scholar helps in their better use.



e) There is no significant difference in attitude of faculties towards the Google Scholar by gender. So, a suitable measure needs to be launched to improve the attitude of faculties towards Google scholar.

f) There is also a need for promoting the use of Google Scholar among faculty members in a University environment through user education programs.

g) The faculty members have to take initiative, interest and put efforts to make best use of access facilities available on the campus. They have taken interest to develop their knowledge of Google Scholar, and it should also support to research scholar and student who's have studies in higher level and increase growth of information also.

h) The faculty members should also develop positive attitude towards Google scholar.



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