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## POSTGRADUATE STUDENT'S INTERACTION WITH INTERNET BASED INFORMATION RESOURCES IN THEIR ACADEMIC ACTIVITIES: A SURVEY

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### Abstract :

*The paper aims to study the perception of postgraduate students on importance of internet-based information resources for accomplishing their academic tasks. In this study, questionnaire method was used for data collection. A total 130 questionnaires were distributed to the postgraduate students of twenty departments at University of Mysore and 123 filled-in questionnaires were received back with overall response rate of 97.69 %. The study findings reveal that the postgraduate students depend on numerous internet-based resources for fulfill their various academic tasks. For example 'Online dictionary' used for looking definition of concept, 'Google books' for looking required books, 'Google scholar' for looking articles, 'Virtual reference services' for looking answer to some specific questions. Search engines are the most commonly used source for accomplishing the complex academic activities such as preparing 'Class Assignments / Seminars' and 'Academic Examination'. However, the new internet-based information resources 'Social Network Sites like Facebook' are very less important sources for performing both the simple and complex academic task of the postgraduate students. Even though, the use of internet-based information resources have been increased considerably, the traditional resources still play significant role than some other popular internet-based resources for performing the some specific tasks. The majority of respondents optioned that the relevance is major criteria for seeking the information on the web.*

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### KEYWORDS :

Internet-based resources, Online information resources, Online information seeking behavior, Academic information access Postgraduate students, User studies, Internet,

### INTRODUCTION

Advancement of web technologies and web tools has considerably influenced on user's perception in accessing numerous internet based information resources such as online dictionary, online encyclopedia, online databases, academic blogs, library OPAC, virtual reference services, free community-based question answering sites, social networking sites, online bookstores like Amazon.com, and search engines. These resources are significantly different from traditional resources available in libraries because Web resources are networked, re-aggregated, heterogeneous, and available in multimedia formats. There is a vast array of digital data formats: text, hypertext, image, sound, video, animation, etc. Information collections are dynamic and beyond physical boundaries (Wang, Hawk, and Tenopir, 2000). Creating and disseminating information online has become possible and desirable with the help of more vibrant, social and participatory Web 2.0 tools (Anderson, 2007); at the same time, it becomes increasingly critical for people to utilize various online information resources as a great deal of relevant information is available only online (He 2012). In this context, the present study focuses on examining how postgraduate students of the University of Mysore interact with internet based information resources in completion of their simple and complex academic tasks.

### Literature Review:

The literature review of the previous studies depict that there are limited number of study to identify the importance of internet-based information resources for fulfill the academic tasks of the postgraduate students. He (2012) conducted a comparative study on use of online information resources by the undergraduate students, and identified that the student used the different information resources for accomplish their various academic task. The search engines are most commonly used sources for performing the complex academic task, and interestingly the social networking sites like Facebook do not play

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significant role in completion of student's individual academic task. Thompson (2003) reported that the majority of students begin a research assignment with the Internet, most often with a commercial search engine. Students believe that the Web to be an important and valuable educational resource, but they are not consistently successful at finding appropriate and educationally valuable sites (Ebersole, 2005). Traphagan (2012) investigated that undergraduate students typically prefer using publicly accessible Web-based resources to traditional academic resources, such as scholarly journal articles and books both in print and digital form; furthermore, they view the former as helpful academic tools with various utilities. The Google and Wikipedia are most frequently used web based resources (Traphagan, 2012). Hughes (2013) examined the international students' experience of using of online information resources to learn and extensive information literacy learning needs. The international students experience an array of strengths and challenges, and an apparent information literacy imbalance between their more developed information skills and less-developed critical information use. Lee, Paik and Joo (2012) identified that undergraduate students choose better information resources in their academic search tasks whereas several useful and credible sources were not frequently used, such as experts/professionals, librarians, research reports and institutional repositories. Although they perceive these sources as credible and useful, undergraduates are less likely to use them due to their lack of accessibility and familiarity. Undergraduate students' academic internet use is most strongly patterned along the lines of gender and subject-specialism rather than other individual characteristics or differences in technology access or expertise (Selwyn, 2008)

#### OBJECTIVES:

To identify the importance of various internet-based information resources in completion of simple academic tasks of postgraduate students.

To identify the importance of various internet-based information resources in completion of complex academic tasks of postgraduate students.

To examine the extent of use of traditional and new internet-based resources.

To find out the important criteria for seeking information on web

To identify the most frequently use of web browser.

#### METHODOLOGY:

The main purpose of the study is to identify the perception of postgraduate students on importance of internet-based information source for completing their simple as well as complex academic tasks. The survey research method was used for the study. The structured questionnaire was designed for data collection and five-point Likert scale was used in the questionnaire. The postgraduate students are required to provide the importance of resources in completing the academic task in a five-point Likert scale: 1 = "not important at all", 2 = "not important", 3 = "not sure", 4 = "important", 5 = "very important". The questionnaire includes three parts. Section 1 has questions deal with the demographic information of the participants. Section 2 has questions which deal with participants view on important of internet based resources to perform simple individual academic task: looking for definitions of concepts, looking for books, looking for articles, and looking for answers to a specific question. Section 3 deals with participants view on important of internet based resources to perform complex academic tasks: preparing for class assignments and preparing for an exam. The lists of internet-based resources were employed in the questionnaire mainly belongs to four categories of resources: resources in tradition library such as library catalogue, digital resources in library such as online database, Web 1.0 resources such as search engine, and Web 2.0 resources such as social networking sites. The researcher distributed 130 questionnaires to postgraduate students of twenty departments at the University of Mysore and 123 questionnaires were received back. This constituted overall response rate of 97.69 %. All the selected departments of the university mainly belong to 4 disciplines such as Science, Social Science, Commerce and Education. Each department was personally visited for data collection. The survey was done between the month of June, 2013 and January 2014. The data so collected has been analyzed and interpreted in the succeeding sections of the paper.

#### RESULT AND DISCUSSION

##### 1. Gender Wise Distribution

Table 1: Gender Wise Distribution

S/N	Gender	No of Respondents	Percentage
1	Male	58	47.2%
2	Female	65	52.8%
	<b>Total</b>	<b>123</b>	<b>100(%)</b>

The Gender wise distribution of the respondents is shown in the Table 1. It may be seen from the table that the majority of respondents 65 (52.8%) are female and remaining (47.2%) are male.

## 2.Age Wise Distribution

**Table 2: Age Wise Distribution**

S/N	Age	No of Respondents	Percentage
1	<25	120	97.6%
2	26-30	3	2.4%
3	30-40	0	0.0%
4	40>	0	0.00%
	<b>Total</b>	<b>123</b>	<b>100%</b>

The Age wise distribution of the respondents is shown in Table 2. It may be seen from the table that all respondents are younger. Among them the majority of respondents 120 (97.6%) belong to age group of less than 25 years followed by 26 – 30 years (2.04%).

## 3.Discipline Wise Distribution

**Table 3: Discipline Wise Distribution**

S/N	Discipline	Respondents	Percentage
1	Science	55	44.72
2	Social Science	42	34.15
3	Commerce and Management	23	18.70
4	Education	3	2.44
	<b>Total</b>	<b>123</b>	<b>100%</b>

The table 4 shows that the discipline wise distribution of the respondents. It may be seen from the table that the majority of respondents 55 (44.72%) are belongs to Science discipline followed by Social Science 45 (34.15%), Commerce 23 (18.70%) and Education 3 (2.44).

## 4.Hours Spent in browsing Internet in a Week

**Table 4: Hours Spent in browsing Internet in a Week**

S/L	Hours Spent	Respondents	Percentage
1	0-5 hours	56	45.53%
2	6-10 hours	37	30.08%
3	11-15 hours	16	13.01%
4	16 or more hours	14	11.38%
	<b>Total</b>	<b>123</b>	<b>100%</b>

The Table 5 reveals that the nearly half of the total respondents (45.53%) spent 0 – 5 hours in a week for browsing the internet; followed by 30.08% of respondents who spend 6 – 10 hours, 13.01% of respondents spend 11 – 15 hours and 11.3% of spend more than 16 hours in a week.

## 5.Use of Web Browser

**Table 5: Use of Web Browser**

S/N	Web Browser	Respondents	Percentage
1	Google Chrome	105	85.37
2	Mozilla Firefox	57	46.34
3	Internet Explorer	26	21.14
4	Safari	2	1.63

A preference for web browser use by respondents is shown in the table 6. It may be seen from the table that the majority of respondents 105 (85.37%) prefer to use Google Chrome web browser followed by Mozilla Firefox 57 (46.34%), Internet Explorer 26 (21.14%) and Safari is used by very least number 2 (1.63%) of the respondents.

**6.Importance of Internet-based Information Resources for looking the Definition of Concept**

**Table 6: Importance of Internet-based Information Resources for looking the Definition of Concept**

S/N	Internet-based Resources	Not at all important	Not Important	Not sure	Important	Very important	Mean
1	Online printed dictionaries such as Oxford English Dictionary	3 (2.44%)	13 (10.57%)	28 (22.76%)	49 (39.84%)	30 (24.39%)	<b>3.73</b> <b>(1)</b>
2	Community-based encyclopedias such as Wikipedia	4 (3.25%)	18 (14.63%)	15 (12.20%)	62 (50.41%)	24 (19.51%)	<b>3.68</b> <b>(2)</b>
3	Online dictionaries such Dictionary.com	4 (3.25%)	9 (7.32%)	38 (30.89%)	57 (46.34%)	15 (12.20%)	<b>3.57</b> <b>(3)</b>
4	Online version of printed encyclopedia	9 (7.32%)	13 (10.57%)	61 (49.59%)	27 (21.95%)	13 (10.57%)	<b>3.18</b> <b>(4)</b>

Table 6 indicates that importance of various internet-based information resources for looking the definition of concept by respondents. It may be seen from the table that the traditional resources is more important over the new internet-based resources for looking the definition of concept. As shown in the table, the majority of respondents (mean=3.73) preferred the 'Online printed dictionaries such as Oxford English Dictionary' for fulfill the task. The second preferred source is new online resource 'Community-based encyclopedias such as Wikipedia' (mean=3.68) followed by 'Online dictionaries such as Dictionary.com' (mean=3.57). The 'Online version of printed encyclopedia' is used by least number of respondents (mean=3.18).

**7.Importance of Internet-based Information Resources for Looking / Searching books**

**Table 7: Importance of Internet-based Information Resources for Looking / Searching books**

S/N	Internet-based Resources	Not at all important	Not Important	Not sure	Important	Very important	Mean
1	Google books	3 (2.44%)	4 (3.25%)	19 (15.45%)	55 (44.72%)	42 (34.15%)	<b>4.05</b> <b>(1)</b>
2	University Library Web OPAC	6 (4.88%)	5 (4.07%)	18 (14.63%)	59 (47.97%)	35 (28.46%)	<b>3.91</b> <b>(2)</b>
3	Amazon.com	2 (1.63%)	10 (8.13%)	56 (45.53%)	44 (35.77%)	11 (8.94%)	<b>3.42</b> <b>(3)</b>
4	Library of congress catalogue and Worldcat	5 (4.07%)	15 (12.20%)	54 (43.90%)	42 (34.15%)	7 (5.69%)	<b>3.25</b> <b>(4)</b>

Table 7 reveals that importance of various internet-based information resources for looking books by respondents. It may be seen from the table that the new internet-based were more valued over the traditional resource for looking for books. As shown in the table. The majority of respondents (mean=4.05) considered that the Google Book is a one of the popular online source for fulfill the task followed by traditional resource 'University library OPAC' (mean=3.91). Interestingly, the dependency on 'Online bookstores such as Amazon.com' (mean=3.42) were accessed more rather than 'Public catalogue such as Library of Congress Catalogue and Worldcat' (mean=3.25).

**8.Importance of Internet-based Information Resources for Looking / Searching articles**

**Table 8: Importance of Internet-based Information Resources for Looking / Searching articles**

S/N	Internet-based Resources	Not at all important	Not Important	Not sure	Important	Very important	Mean
1	Google Scholar and CiteSeers	7 (5.69%)	6 (4.88%)	22 (17.89%)	55 (44.72%)	33 (26.83%)	<b>3.82</b> <b>(1)</b>
2	University library-subscribed Databases (SciFinder, Web of Science and Ebsco Scholar)	1 (0.81%)	11 (8.94%)	29 (23.58%)	55 (44.72%)	27 (21.95%)	<b>3.78</b> <b>(2)</b>
3	Online publisher database (Emerald and Science Direct)	7 (5.69%)	12 (9.76%)	54 (43.90%)	32 (26.02%)	18 (14.63%)	<b>3.34</b> <b>(3)</b>
4	Online Open access databases (JSTOR and Pubmed)	2 (1.63%)	8 (6.50%)	74 (60.16%)	27 (21.95%)	12 (9.76%)	<b>3.32</b> <b>(4)</b>

Table 8 shows that the importance of various internet-based information resources for looking articles by respondents. It may be seen from the table that the new internet-based is more important over traditional resource for

completing the academic task of looking for article. As shown in the table, the majority of respondents (mean=3.82) gave more importance to 'Online academic search engine like Google Scholar and CiteSeers' for fulfill the task followed by the traditional resources 'University subscribed database such as SciFinder Scholar and Web of Science etc' (mean =3.78), 'Online publisher database such Emerald and Science Direct' (mean=3.34), and the 'Online open access databases such as JSTOR and Pubmed' are used by least number of the respondents (mean=3.32).

### 9.Importance of Internet-based Information Resources for Looking Answer to some Specific Questions

**Table 9: Importance of Internet-based Information Resources for Looking Answer to some Specific Questions**

S/N	Internet-based Resources	Not at all important	Not Important	Not sure	Important	Very important	Mean
1	Virtual reference services such as Ask a Librarian	3 (2.44%)	9 (7.32%)	46 (37.40%)	46 (37.40%)	19 (15.45%)	<b>3.56</b> (2)
2	Face-to-face reference services	2 (1.63%)	14 (11.38%)	42 (34.15%)	44 (35.77%)	21 (17.07)	<b>3.55</b> (3)
3	Free community-based question answering sites such as Yahoo Answers	5 (4.07%)	7 (5.69%)	40 (32.52%)	61 (49.59%)	10 (8.13%)	<b>3.52</b> (4)
4	Friends in social networking sites such as Facebook	15 (12.20%)	20 (16.26%)	36 (29.27%)	32 (26.02%)	20 (16.26%)	<b>3.18</b> (5)
5	Professional community-based question answering sites such as Uclue	7 (5.69%)	10 (8.13%)	72 (58.54%)	24 (19.51%)	10 (8.13%)	<b>3.16</b> (6)

The Table 9 reveals the importance of various internet-based information resources for looking answer to specific question by respondents. It may be seen from the table that the traditional resource is more important over the online resource for accomplishing the task of looking answer to specific question. The majority of respondents (mean=3.56) assumed that virtual reference services such as 'Ask a Librarian' are significant sources for fulfill the task followed by 'Face-to-Face reference services' (mean=3.55). Interestingly, the new internet-based resources Web 2.0 like social networking sites (Ex: Facebook) (mean=3.18) and professional community-based question answering sites such as Uclue (mean=3.16) are considered as less important sources.

### 10.Importance of Internet-based Information Resources for preparing Class Assignments / Seminars

**Table 10: Importance of Internet-based Information Resources for preparing Class Assignments / Seminars**

S/N	Internet-based Resources	Not at all important	Not Important	Not sure	Important	Very important	Mean
1	Search engine	6 (4.88%)	6 (4.88%)	16 (13.01%)	54 (43.90%)	41 (33.33%)	<b>3.96</b> (1)
2	Online encyclopedias / dictionaries	2 (1.63%)	10 (8.13%)	19 (15.45%)	53 (43.09%)	39 (31.71%)	<b>3.95</b> (2)
3	Online database	2 (1.63%)	4 (3.25%)	33 (26.83%)	56 (45.53%)	28 (22.76%)	<b>3.85</b> (3)
4	Academic blogs	4 (3.25%)	10 (8.13%)	37 (30.08%)	47 (38.21%)	25 (20.33%)	<b>3.64</b> (4)
5	Online academic discussion forum	3 (2.44%)	8 (6.50%)	52 (42.28%)	36 (29.27%)	24 (19.51%)	<b>3.57</b> (5)
6	Community-based question answering sites	6 (4.88%)	11 (8.94%)	43 (34.96%)	41 (33.33%)	22 (17.89%)	<b>3.50</b> (6)
7	Social network sites	10 (8.13%)	13 (10.57%)	41 (33.33%)	37 (30.08%)	22 (17.89%)	<b>3.39</b> (7)

The Table 10 indicates that the importance of internet-based information resources for preparing class assignments or seminars by respondents. It may be seen from the table that The 'Online search engines' (mean=3.96) and 'Online encyclopedias or dictionaries' (mean=3.95) are foremost internet-based information resources for performing the academic task of preparing Class Assignments / Seminars. which represent mean score 3.96 and 3.95 respectively followed by 'Online database' (mean=3.85), 'Academic blogs' (mean=3.64), 'Online academic discussion forum' (mean=3.57), community-based question answering sites (mean=3.50). The social network sites are regarded as less important sources (mean=3.39).

### 11.Importance of Internet-based Information Resources for Preparing for Academic Examination

The Table 11 indicates that the importance of internet-based resources for preparing for academic exam. It may be seen from the table that 'Online search engines' (mean=3.95) and 'Online encyclopedias or dictionaries' (mean=3.89) are foremost internet-based resource for accomplishing the complex academic task of preparing academic examination;

followed by online database (mean=3.76), academic blogs (mean=3.67), community-based question answering sites (mean=3.63), online academic discussion forum (mean=3.46), The social network sites are less important sources for the task (mean=3.19).

**Table 11: Importance of Internet-based Information Resources for Preparing for Academic Examination**

S/N	Internet-based Resources	Not at all important	Not Important	Not sure	Important	Very important	Mean
1	Search engines	2 (1.63%)	8 (6.50%)	27 (21.95%)	43 (34.96%)	43 (34.96%)	<b>3.95</b> (1)
2	Online Encyclopedias	6 (4.88%)	7 (5.69%)	18 (14.63%)	56 (45.53%)	36 (29.27%)	<b>3.89</b> (1)
3	Online database	5 (4.07%)	10 (8.13%)	23 (18.70%)	57 (46.34%)	28 (22.76%)	<b>3.76</b> (2)
4	Academic blogs	2 (1.63%)	10 (8.13%)	41 (33.33%)	43 (34.96%)	27 (21.95%)	<b>3.67</b> (3)
5	Community-based	3 (2.44%)	10 (8.13%)	36 (29.27%)	54 (43.90%)	20 (16.26%)	<b>3.63</b> (4)
6	Online Academic discussion forum	1 (0.81%)	16 (13.01%)	47 (38.21%)	44 (35.77%)	15 (12.20%)	<b>3.46</b> (5)
7	Social network sites	13 (10.57%)	14 (11.38%)	49 (39.84%)	31 (25.20%)	16 (13.01%)	<b>3.19</b> (6)

## 12. Important criteria's for Seeking Information on Web

**Table 13: Important criteria's for Seeking Information on Web**

S/N	Criteria	Not at all important	Not Important	Not sure	Important	Very important	Mean
1	Relevancy	1 (0.81%)	7 (5.69%)	19 (15.45%)	64 (52.03%)	32 (26.02%)	<b>3.97</b> (1)
2	Recentness	4 (3.25%)	7 (5.69%)	30 (24.39%)	40 (32.52%)	42 (34.15%)	<b>3.89</b> (2)
3	Ease of use	1 (0.81%)	7 (5.69%)	33 (26.83%)	48 (39.02%)	34 (27.64%)	<b>3.87</b> (3)
4	Abundance	2 (1.63%)	9 (7.32%)	39 (31.71%)	38 (30.89%)	35 (28.46%)	<b>3.77</b> (4)
5	Credibility	8 (6.50%)	6 (4.88%)	32 (26.02%)	53 (43.09%)	24 (19.51%)	<b>3.64</b> (5)
6	Familiarity of search tools	2 (1.63%)	5 (4.07%)	44 (35.77%)	52 (42.28%)	20 (16.26%)	<b>3.67</b> (6)

The Table 13 examines the important criteria's for seeking information on Web by the respondents. It may seen from the table the majority of the respondents (mean=3.97) gave more attention towards the relevance information available on the web to fulfill their information needs. The recentness is second preferred criteria (mean=3.89); followed by 'Ease of use' (mean=3.87), 'Abundance' (mean=3.77), 'Credibility' (mean=3.54), and lastly 'Familiarity of search tools' (mean=3.67)

## CONCLUSION:

The present study examined the perception of postgraduate students on importance of internet-based information resources for performing the simple and complex academic tasks. The study result reveals that the traditional resources (or online version of traditional resources) are more valid resources for fulfill some academic tasks. For example, "looking for definitions of concepts" and "looking for answers to a specific question". Similarly the new internet-based information resources are also valid resources in completion of some other academic tasks. For example, looking for books and looking for articles. Surprisingly, the postgraduate students primarily depended on 'Google Book' rather than library OPAC for looking the required books. However, the new internet-based information resources 'Social Network Sites like Facebook' are very less important sources for performing both academic tasks of the students. Even though, the use of internet-based information resources have been increased, the traditional resources still play significant role than some other popular internet-based resources for performing the some specific tasks.

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