How Post Graduate Students Use and Access Electronic Resources in the Universities of Jammu and Kashmir

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Abstract

Purpose: *Easy availability and accessibility of information in multi-formats, advancement in tech savvy tools and improvement in information organization have led to the heavy use of electronic sources of information. Same is expected about the students pursuing various courses in different universities of Jammu and Kashmir. The paper explores, analyses and discusses the use of electronic sources of information by the students pursuing various courses in the universities of Jammu & Kashmir.*

Design/methodology/approach: *To explore the use of electronic sources of information, a total of 927 students using stratified random sampling were selected from four universities of Jammu & Kashmir. Sample was taken in accordance to the population ratio from each of the select universities. A well-drafted questionnaire was used as a data gathering tool and was personally distributed among all the students. Data was analyzed using SPSS software.*

Findings: *The use of electronic sources of information has increased among the university students by the introduction of Information Technology. There is a transformation from the traditional way of seeking information towards the tech savvy mode. Students mainly use laptops for seeking their desired information. Internet and Newspapers are mostly used to stay updated. The awareness and assistance regarding the use of electronic sources of information is mostly given by friends and teachers rather than library staff. The study also reveals that students face a number of physical problems including strain in eyes and neck while accessing electronic sources of information.*

Practical implications: *The paper is highly applicable to the administrators and managers of university setups to understand the use and impact of electronic sources on the university students in the digital environment. It will further help the university libraries to subscribe qualitative electronic resources and launch awareness as well as assistance programs among the users to enhance their information literacy skills.*

Originality/value: *No such survey has been conducted in the Universities of Kashmir till date.*

Keywords: *Electronic resources; Information literacy; Information seeking behavior; Universities of Jammu and Kashmir, University of Kashmir.*

Paper type: *Research Paper*

Introduction

University libraries act as a knowledge hub which provides a foundation for scholarly communication, teaching as well as learning processes. Qualitative research and standard education is not possible without the use of plethora of qualitative information sources. With the advancement in technology, there is a constant increase in the creation as well as use of electronic sources of information globally and the same is being witnessed among the users of libraries in the universities of Jammu and Kashmir.

Electronic resources (e-resources) have made information timely available, organize information more effectively and provide means to remove barriers that hinder access to information. These resources help to meet the information needs of users in more satisfactory and systematic manner. These resources have round the clock availability to the users on the web and provide up-to-date and latest information. Electronic resources take very less space and facilitate user friendly search interface that too at least cost. These resources have furnished various researches as well as social networking tools which lead to instant scholarly communication and professional interaction. Electronic resources provide access to information that might be restricted to the user because of political, social or geographical barriers. These resources are constantly updated and are accessed by means of various search techniques as well as search tools. Electronic resources provide extensive web links to discover additional resources that fulfill the user needs more systematically. Besides, these resources are convenient to use since users are able to access information from various access locations like library, internet café, departments offices or at times from the comfort of their homes at any time of the day **(Gakibayo, 2013)**. It is because of these benefits and features of electronic sources that users of libraries from all over the world take good interest to use electronic sources for satisfying their information needs. The paper explores and analyses the use of electronic resources by the students pursuing various courses in the select universities of Jammu and Kashmir.

Review of Literature

Moly (2014) found that the main purpose of students to visit library is writing assignments/research and study. **Thanuskodi (2012)** also researched that most of the respondents access information for writing papers while as some also use it these for research work. Students search information for various reasons from print as well as electronic sources. While browsing desired information, they come across a number of problems. According to **Baro, Endouware and Ubogu (2011)** the problems that students face while searching information include lack of

time, inadequate information literacy, and poor searching skills. **Thanuskodi (2012)** also investigated information needs and information seeking behavior of users and found that the respondents use a variety of information sources like *books, law reports and statutes* for teaching and research purposes. According to **Ernest, Level and Culbertson (2005),** students prefer to use a wide range of information sources while seeking information and they become aware about these sources by consulting friends, family, and relatives. **Moly (2014)** also found that students use sources like *books, journals, internet* etc to meet their information needs. **George et al. (2006),** while analyzing the information seeking behavior of graduate students found that students heavily depend upon on *Internet* and various other sources like *books, journals and research papers.* **Online Computer Library Center (2006)** report that majority of students typically use *search engine* especially *Google* and a good number of them also use *library websites* to access *e-zenes, e-journals and online data bases.* **Medeiros (2009**) also reports that the use of *library-supplied databases* is increasing. Moreover, apart from web sites, web-based lecture notes are also being used to a good extent. The adoption of Information Technology in the academic institutions has led to the creation of electronic sources and services. Students and research scholars make use of these sources besides the traditional or print sources. **Dhanavandan, Esmailand Nagarajan (2012)** state that *electronic sources* usually consist of *e-books, e-Journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs*, which are likely to be the alternative to the *print media.* **Thanuskodi (2012)** found that most of users access only electronic version of information with less number accessing only the printed version of information and a meager score prefer to use both electronic and printed information. **Ganaie and Rather (2015)** also concluded that though the print sources of information are highly significant but electronic sources are more popular among students. **Catalano (2013)** finds in his study that students prefer to use electronic sources as well as web sources like internet while seeking information related to their research. **Sheeja (2010)** divulges that *Social Science and Science* researchers prefer to access electronic resources like e-journals and e-databases more than the print forms of these resources which are very relevant to their research purposes. Easy availability and accessibility of information that too in multi-formats, advancement in tech savvy tools and improvement in information organization have resulted in modifying the information seeking behavior of students to a greater extent **(Shrivastava & Mahajan, 2016)**. **Dhanavandan, Esmail and Nagarajan (2012)** state that *web electronic sources* are one of the most significant resources in libraries. **Tenopir (2009)** reports that the information seeking and reading patterns of users have changed with the

growth of *electronic journals*. **Timmers and Cees (2010)** are of the opinion that, to find more precise and qualitative information from the web, it is necessary to have awareness of *various search strategies*. **Navalur, Balasubramani and Kumar (2012)** reveal that *key word search, field search, phrase search, search with Boolean operators, wild cards and truncations are commonly known search strategies* which are used by most of the research scholars while searching the web.

Objectives
- To know the means of awareness adopted by students regarding electronic resources.
- To identify the gadgets/devices used to access electronic sources of information.
- To examine the use of electronic information sources
- To identify the problems faced while accessing information

Methodology
Survey method was employed and a total of 927 students were selected by using stratified random sampling. Sample was taken in accordance to the population ratio from each of the universities. A well-drafted questionnaire was used as a data gathering tool and was personally distributed among all the students. Data was analyzed using SPSS software.
The scope of the study was limited to four select universities of Jammu & Kashmir state, i.e.
1) University of Kashmir, Srinagar
2) University of Jammu, Jammu
3) Islamic University of Science and Technology, Pulwama
4) Mata Vaishno Devi University, Katra

Data Analysis
Devices used to access electronic information
Mobile phones rank 1st as majority of the respondents (47.41%) prefer to access information through the same; while as a good proportion of respondents (45.41%) use laptops (rank 2nd) for searching the desired information. Only 8.95% of respondents prefer desktop. Moreover, 27.61% of respondents use all these devices to browse the desired information **(Table 1)**.

Reasons to use electronic sources of information
Easy accessibility of electronic sources of information surfaced out as the dominant feature that attract majority of respondents (63.86%) to use these sources. Online availability ranks 2nd as 44.76% of the respondents

prefer electronic sources followed by 36.56% who believe that these sources have quick search mechanism. Around 26% prefer to access these sources as they facilitate use of multi search techniques and easy storage. Further, 28.80% of respondents feel that these are more up-to-date and a least proportion (25.56%) is of the opinion that the feature that tempts them to use electronic information sources is easy information extraction **(Table 2)**.

Table 1: Devices used
(N=927)

Device	No. of Respondents*	Rank
Mobile Phones	437 (47.14%)	1
Laptop	421 (45.41%)	2
Desktop	83 (8.95%)	4
All devices	256 (27.61%)	3

*Cumulative sum of responses exceeds total respondent count since they were permitted to give multiple responses.

Table 2: Reasons to use electronic resource
(N=927)

Features	No. of Respondents	Rank
Easy accessibility	592 (63.86%)	1
Online availability	415 (44.76%)	2
Quick search	339 (36.56%)	3
Up-to-date	267 (28.80%)	4
Multi search techniques	245 (26.42%)	5
Easy storage	244 (26.32%)	6
Easy information extraction	237 (25.56%)	7

*Cumulative sum of responses exceeds total respondent count since they were permitted to give multiple responses

Sources consulted to keep updated with the latest Information
Majority of respondents (83.60%) use Internet to keep themselves abreast with the latest information which is also supported by **Mostofa (2013)** who is also of the view that Internet is mostly preferred by the students in universities to keep themselves updated with the latest information. It is followed by a good proportion of respondents (53.29%) who use newspapers. 43.36% and 33.00% of the respondents prefer to remain updated by SNS and television respectively while as only 17.04% of prefer to use current issues of journals. Furthermore, least proportion of respondents (6.14%) use other sources to keep themselves updated with latest information **(Table 3).**

Table 3: Sources to keep abreast with latest information (N=927)

Sources	No. of respondents*	Rank
Internet	775 (83.60%)	1
Newspapers	494 (53.29%)	2
Social Networking Sites (SNS)	402 (43.36%)	3
Television	306 (33.00%)	4
Personal communication	276 (29.77%)	5
Seminars/ conferences	204 (22.00%)	6
Current issues of journals	158 (17.04%)	7
Others	57 (6.14%)	8

*Cumulative sum of responses exceeds total respondent count since they were permitted to give multiple responses.

Awareness about the Use of Electronic Resources

Al-Muomen, Morris and Maynard (2012) are of the opinion that awareness about using electronic sources plays significant role in influencing the information seeking behavior of students**.** Respondents get awareness about using the electronic sources through various means and sources. Majority of respondents (58.68%) are aware about the use of electronic resources through their self-interest, followed by 53.61% whose source of awareness are their friends. Teachers also play a significant role in making respondents familiar about the use of electronic sources of information as 29.88% tag them as source of information which is in tune with the findings of **Ernest, Level and Culbertson (2005)** who found that a good proportion of the users consult teachers to stay aware about the use of electronic sources**.** Library staff and library websites together amount to 12% as a source by which the respondents stay aware of the electronic sources. Further, it is also observed that least proportion of respondents (2.5%) are not aware of electronic sources of information which is in relation to the study of **Hamade** and **Al-Yousef (2010)** who highlighted that some students in Kuwait University are not aware about the use of electronic sources **(Table 4)**.

Assistance in using electronic resources

Majority of the respondents (62.02%) seek assistance from their friends followed by 33.87% who take help from their classmates for accessing the electronic resources while as 28.91% seek guidance from their teachers and only 19.30% from library staff. However, 13.16% of the respondents get assistance to use electronic resources through some other means **(Table 5)**.

Table 4: Awareness about electronic resources
(N=927)

Awareness sources	No. of respondents*	Rank
Self interest	544 (58.68%)	1
Friends	497 (53.61%)	2
Teachers	277 (29.88%)	3
Library staff	61 (6.58%)	4
Library website	52 (5.60%)	5
I am not aware at all	24 (2.58%)	6

*Cumulative sum of responses exceeds total respondent count since
they were permitted to give multiple responses.

Table 5: Assistance to use electronic resources
(N=927)

Assistance	No. of Respondents*	Rank
Friends	575 (62.02%)	1
Classmates	314 (33.87%)	2
Teachers	268 (28.91%)	3
Library staff	179 (19.30%)	4
Others	122 (13.16%)	5

*Cumulative sum of responses exceeds total respondent count since
they were permitted to give multiple responses.

Search tools used while browsing online resources

Majority of respondents (66.23%) use search engines for browsing information from online electronic resources which is in line with the findings of **He, Yue, Vo, Wu, and Fu (2012)** who also found that majority of students in higher academic institutions prefer to browse information using search engines**.** However, 36.56% prefer to use online databases for the same. University library websites are accessed by only 22.11% which is in contradiction with the findings of **Dubicki (2010)** who found that most of the students prefer to search information using university library website. It is further revealed that meta search engines are used by 10.57% of respondents for searching desired information. Portals on the other side are used by only 7.98% while as least number of respondents (3.77%) are not aware about these tools at all **(Table 6)**.

Use of electronic sources

e-books are used by majority of the respondents (63.96%), followed by e-newspapers (41.10%). E-journals are being used by 35.59% which is also supported by the findings of **O' Farrelland Bates (2009)** who found that a

good proportion of respondents prefer to use e-journals. Further, it is also similar to the opinion of **Sheeja (2010**) who views that among all the electronic resources, students in universities use e-journals mostly. Furthermore, ETDs are used by 24.27% while as e-zines and e-conference proceedings are used by 13.48% and 10.35% of respondents respectively. Although, most of the respondents' access variety of electronic information resources, but still 11.54% of them are not aware of these sources which is in tune with the findings of the study of **Hamade and Al-Yousef, (2010)** who found that a good number of students do not use electronic sources due to lack of awareness **(Table 7)**.

Table 6: Search tools used
(N=927)

Search Tool	No. of Respondents*	Rank
Search Engine	614 (66.23%)	1
Online Databases	339 (36.56%)	2
University Library Website	205 (22.11%)	3
Meta Search Engine	98 (10.7%)	4
Portals	74 (7.98%)	5
I am not aware at all	35 (3.77%)	6

Cumulative sum of responses exceeds total respondent count since they were permitted to give multiple responses.

Table 7: Use of electronic sources
(N=927)

Electronic Resources	No. of Respondents*	Rank
e-Books	593 (63.96%)	1
e-Newspapers	381 (41.10%)	2
e-Journals	330 (35.59%)	3
e-Theses & Dissertations (ETDs)	225 (24.27%)	4
e-Zines (e-magazines)	125 (13.48%)	5
e-Conference Proceedings	96 (10.35%)	7
Not aware about the resources	107 (11.54%)	6

Cumulative sum of responses exceeds total respondent count since they were permitted to give multiple responses.

Problems faced while using electronic resources
Majority of the respondents (70.44%) suffer from eye strain while accessing electronic resources and 28.04% of them face strain in their neck. However, a low proportion of the respondents (14.23%) face difficulty in accessing electronic resources. Moreover, least proportion

(10.35%) of respondents believes that they lack a reading aid to access electronic information resources **(Table 8)**.

Table 8: Problems in using electronic resource (N=927)

Problem	No. of Respondents*
Straining of eyes	653 (70.44%)
Straining of neck	260 (28.04%)
Difficult to access	132 (14.23%)
Need a reading aid	96 (10.35%)

*Cumulative sum of responses exceeds total respondent count since they were permitted to give multiple responses.

Findings

The introduction of information technology has enhanced the creation and use of electronic resources. Users in university libraries access electronic information sources using various electronic gadgets. It is found that mobile phones and laptops are being predominantly used by the students under study. The most prominent reasons for accessing electronic sources are found to be the easy accessibility and online availability. Findings also reveal that users keep themselves updated with the latest information by means of Internet and newspapers mostly. The awareness and assistance regarding the use of electronic sources of information is mostly given by friends and teachers. It is interesting to know that the self-interest of students to seek information from the electronic resources also make them aware about new electronic resources. Among all the electronic sources, users mostly use e- journals, e-books and e-newspapers. Search engines are used by majority of the respondents for browsing information. It is also found that users face various physical problems while accessing electronic resources and majority of them suffer from strain in eyes and neck.

Conclusion

The use of electronic resources in the university set-ups is increasing as a result of advancement in technology and the same is witnessed among the students pursuing various courses in the universities of Jammu and Kashmir. Students rely on a plethora of electronic information sources to seek their desired information and to fulfill their information needs timely and systematically. Teachers and friends play an active role in making students aware and assist them to use electronic sources in the select universities. However, students do not get enough assistance from library staff which is a matter of concern. The library administration needs to take adequate steps to launch awareness as well as assistance

programs to ensure maximum electronic resource usage among the students. Although, electronic resources provide a number of benefits to their users but at the same time the users suffer from various physical problems like strain in neck, strain in eyes etc.

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