Trends in Information Management
Volume 11 • Issue 2 • July-December 2017
ISSN: 0973-4163
pp 213-227

Scholars Perception Regarding Digital Library Resources and Services

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ABSTRACT

Purpose – *The study is an attempt to explore the scholar's perception regarding digital information resources and services in terms of their awareness, use, and satisfaction level with these resources.*

Methodology – *Survey method was used to carry out the research and questionnaire was used as a data gathering tool. A sample size of 90 research Scholars was selected and accordingly 90 questionnaires were distributed among the Scholars pursuing different courses from the faculty of Science, Social Science, and Arts & Humanities of University of Jammu.*

Findings – *The findings of the study reveal that research scholars across all faculties are moderately aware about the various types of digital resources. On the other hand, low level of awareness is witnessed among scholars about various digital services. Moreover, the utilization of e-resources and services is also low among them, which may be due to their lack of awareness. The major problem faced by scholars in use of e-resources and services is lack of library orientation programs. Accordingly, majority of the scholars lack satisfaction with digital resources and services available in the library.*

Practical Application – *The paper finds great implications in understanding the perception of scholars regarding library resources and services provided by Jammu University. Further, it will help university administration and library management to improve user-oriented services to ensure their cent percent satisfaction level with*

the library and its resources.

Paper type – *Research paper*

Keywords: *University Libraries, ICT, digital-resources, digital-Services, User Study.*

INTRODUCTION

University libraries represent the key hub for knowledge dissemination within their host organization i.e. universities to accomplish their primary endeavors viz., teaching, learning, and research in most effective and efficient manner **(Ashaver and Bem-Bura, 2013).** Since, for centuries they being the premier seats for learning have played and are continually playing significant roles in supporting research in all subjects and disciplines by diminishing the gap between information seekers (users) particularly the budding intellectuals (researchers) and information through an array of disseminating channels. In line with the same commenting upon the essence and functioning of university libraries, **Aguolu and Aguolu (2002)** state that *"The basic function of any university is to conserve the existing knowledge, to transmit knowledge through teaching, and to create new knowledge through research".* Although, in past print dominated era these libraries were principally directed by the objective of connecting users to the resource without the use of technology proving to be hectic and time consuming **(Bagudu & Sadiq, 2013).** However, the emergence of technological advancements altogether changed the mechanism of interaction between the resources and the users. Accordingly, these advancements paved way for having varied modes of accessibilityto information resources, as well astransformed the services that academic libraries make available to their research communities. Consequently, libraries have transformed into digital and virtual libraries where books, journals, and magazines have changed into e-books, e-journals, and e-magazines etc **(Akpojotor, 2016).** Besides, the services that serves as a connecting link between the user and information has led to massive and progressive changes due to fast growth and advancement of Information Communication Technologies **(Madukoma, 2015)**. In this milieu, University libraries are nowadays striving to meet up the needs of the academic and research community by improving their services and enhancing their resources through the provision of digital library collection and services **(Bagudu & Sadiq, 2013).** Since, the main endeavour of these services is to expand the range of information resources available as well as to add value to their content by making them accessible through various telecommunication networks so that users can access them everywhere **(Xia, 2003).** For that reason, they partake enthusiastically in the contemporary digital revolution by offering scholarly content in digital formats through library websites as well as by sequentially digitising their exclusive collections of textual, visual, and multimedia resources and making them available through an array of digital and electronic services for the efficient and effective use of tech savvy users **(Matusiak, 2012). D**espite the untiring efforts of offering latest and technologically advanced resources and services by university

libraries, mere provision of resources and services does not indicate their success. In other words, successful functioning of libraries can be indicated only when users are satisfied with its resources and services. In this context, the paper is an attempt to know the perception, use, and barriers faced by scholars regarding digital information resources and services.

REVIEW OF LITERATURE

A lot has been published on the perception of users regarding digital information resources and services in terms of awareness, usage and satisfaction. In this context present section attempts to offer a brief overview of the relevant literature.

Choudhury, Hobbs, Lorie and Flores (2002) observed an increasing prominence on a user-centric perspective when evaluating digital services. The authors further pointed out that the, decision-makers need to think about insights and perspectives concerning user preferences from a range of sources to make certain that prospective digital services will serve the user needs positively. **Fountain (2000)** highlighted that the academic libraries are fast turning their attention towards executing and offering users a range of novel ways to access information owing to the copious advantages of digital services. Commenting upon the accessibility of digital resources and service. **Sharma (2009)** strongly indicate that the preponderance of the Research Scholars are competent to access the e-resources and services without any hassle. To highlight the usage of information resources and services by the researchers **Tamrakar and Garg (2016)** state that mainstream of users prefer to use e-journals to accomplish their research and information needs. Moreover, **Bhat and Mudhol (2014) as well as Mounissamy and Rani (2005)** also observed that majority of the researchers recurrently access and take advantage of the e-journals for multiple purposes**.** Besides, to offer an insight about the satisfaction level of students, **Tyagi (2011)** states that the majority of the Research Scholars are aware of the e-sources and services. Commenting upon the user's awareness about digital resources and services, **Bhat and Mudhol (2014)** as well as **Tamrakar and Garg (2016)** state that most of the users are aware about e-resources offered by the library. However, contrarily **Khan (2012); Natarajan, Suresh, Sivaraman and Sevkun (2010)** reveal limited awareness about e-resources among users**. Xia (2003)** observed that the level of use is prejudiced profoundly by users' perceived significance of the services, their satisfaction with the services, as well their awareness with the library and its resources in an efficient manner. **Baskaran (2011)** offers an insight about User Perception of Library Services in Academic Institutions. In line with the same, **Tamrakar and Garg (2016)** strongly emphasized the fact that the "E-services offered by the library of IIT-Guwahati have positive influence on the users' academic efficiency through increased access to current information, ease research process as well as improve their professional competence". **Matusiak (2012)** reveals that the users the study participants did not perceive academic libraries as a useful source particularly for audio/visual materials. Besides, **Madukoma (2015)** investigated about the Users' perception of electronic reference services revealing limited level of awareness about electronic reference services among users. Furthermore, **Ashaver and**

Bem-Bura (2013) highlighted about the student's Perception of Library Services in Universities and observed that users in the universities under study have a negative perception on the library services rendered by these university libraries for which the main reason is user's unawareness about the resources and services.

PURPOSE

Present era is an epoch of technological advancements on every forefront. As such, the major knowledge disseminating institutions particularly the university libraries keep pace with these technological advancements in order to provide effective and useful information resources and services to its users to satisfy their information needs. However, the satisfaction of the users is a function of the quality of information resources available as well as library facilities and services provided to access the information product. So, it is immensely important to determine the perception and use of information resources and services by library users especially scholars so that they are fully satisfied with the libraries. In this context, the study is an attempt to examine the awareness, use, and perception of research scholars regarding the Digital Library resources and services provided by University of Jammu.

SCOPE

The scope of the study is confined to the scholars pursuing different courses in different faculties viz Faculty of Science, Faculty of Social Science and Faculty of Arts of University of Jammu.

OBJECTIVES

1. To assess the awareness among Research Scholars about the digital library resources and services
2. To examine the level of usage of digital library resources and services by scholars.
3. To determine researchers' perceptions about the resources and services offered by the library
4. To highlight the problems encountered by the researchers in using the library resources and services

METHODOLOGY

A general survey method was implemented to accomplish the study using questionnaire as a tool. A sample size of 90 research Scholars was selected and accordingly 90 questionnaires were equally distributed among the Research Scholars pursuing different courses from the faculty of Science, Social Science, and Arts & Humanities of University of Jammu. Besides questionnaire, interview of various Research Scholars wherever necessary, were also carried out to gather more data related to the study. The data gathered was thoroughly analyzed using SPSS software.

RESULTS AND DISCUSSIONS

The section presents the analysis of data followed by discussion of the results. The data analyzed is collected from 90 scholars pursuing different courses from the faculties of Science, Social Science, and Arts & Humanities of University of Jammu. The section mainly focuses on analysis related to awareness, use, and perception of scholars of select faculties regarding digital library resources and services provided by the university under study.

AWARENESS REGARDING THE DIGITAL INFORMATION RESOURCES

It is clearly indicated from Table 1 that there is variation in the awareness level about digital information sources among Research Scholars. In the faculty of Science, majority of respondents (66.7%) are aware about e-books followed by 60% who are aware of e-journals. Moderate no. 45.66% of them are familiar about ETD's. On the other hand, in the faculty of Social Science, there is less awareness about the information sources compared to Science Research Scholars. Since merely (36.66%) of respondents are aware about online reference sourcesfollowed by 30%who are aware of ETD'sand e-books. While as only 10% of them are aware about Online Magazines, and Online Repositories. Furthermore, in the faculty of Arts & Humanities, there is again less awareness about the information sources compared to Science Research Scholars as moderate no. of respondents (36.66%) from arts faculty are aware about online reference sourcesand online magazinesfollowed by 20%who are aware of e-journals while as only 16.66% of them are aware about e-Books.

These findings are in consistency with the study conducted by **Khan (2012); Natarajan, Suresh, Sivaraman and Sevkun (2010)** commenting about low awareness of e-resources among library users.

Table 1. Awareness Regarding the Digital Information Resources

Information resources	No. of Research Scholars in each Faculty		
	Science	Social Science	Arts and Humanities
E-Journals	18(60)*	6(20)	6(20)
E-Books	20(66.7)	9(30)	4(13.3)
ETD's	14(45.66)	9(30)	1(3.3)
Online Reference Sources	12(40)	11(36.66)	11(36.66)
Online Magazines	9(30)	3(10)	11(36.66)
Online Repositories	3(10)	3(10)	3(10)

**Data in Parenthesis represent Percentage*

***Note**: Total number of users exceeds the actual number since multiple options are allowed*

AWARENESS ABOUT DIGITAL LIBRARY SERVICES AMONG RE-

SEARCH SCHOLARS

It is apparent from the statistics in Table 2 that there is yet againvariation in the awareness level about varied digital library services among Research Scholars. In Science faculty, majority of the respondents 83.3% are aware about E-mail based services followed by 76.7% and 70% who are aware of OPAC and Library Website. Only 23.3% of them are familiar about E-document delivery/distribution of electronic publication. While as below, 20% of them are aware about other library services. It is also found that none of the Research Scholarsareaware about Podcasting/ Vodcasting services. Inthe faculty of Social Science majority of the respondents,86.7% are aware about OPAC followed by 80% who are aware about E-mail based services. Only 36.7% and 30% of them are familiar about Alerting Services and Current awareness service in libraries respectively. Again below 20% of them were aware about other digital services. Further, in the faculty Arts & Humanities, meager awareness about majority ofdigital library services is witnessed among the Research Scholars. Since, majority 96.7% are either aware about OPACor E-mail based services. Only 23.3% of them are familiar about Library Website.

Table 2. Awareness Regarding Digital Library Services

Types of Services	No. of Research Scholars in each Faculty		
	Science	Social science	Arts & Humanities
Library Website	21(70.0)	11(36.7)	7(23.3)
OPAC	23(76.7)	26(86.7)	29(96.7)
E-mail based services	25(83.3)	24(80.0)	29(96.7)
Alerting services (like article or book alert)	3(10.0)	9(30.0)	0(0.0)
Current awareness service	6(20.0)	8(26.7)	3(10.0)
SDI (selective dissemination of information)	0(0.0)	4(13.3)	0(0.0)
E-document delivery/distribution of electronic publication	7(23.3)	3(10.0)	0(0.0)
Online instructions to use products and services in libraries	0(0.0)	5(16.7)	0(0.0)
Virtual tours of library	0(0.0)	1(3.3)	0(0.0)
Virtual reference desk/ Ask a librarian	1(3.3)	0(0.0)	0(0.0)
Library Blogs	1(3.3)	0(0.0)	0(0.0)
Podcasting/ Vodcasting	0(0.0)	0(0.0)	0(0.0)

**Data in Parenthesis represent Percentage*

Note: *Total number of users exceeds the actual number since multiple options are allowed*

USE OF DIGITAL LIBRARY RESOURCES BY THE RESEARCH SCHOLARS

It is evident from Table 3 that the use of digital information sources varied among the Research Scholars in different faculties. In the faculty of Science, majority of Research Scholars 66.7% prefer to use e-books followed by a good proportion of them 60% who use e-Journals while as least proportion 6.7% prefer to use ETD's. However, in the faculty of Social Science, moderate no. of Research Scholars 30% use either E-booksor OnlineReference Sources use Newspapers, a good portion of them 26.7% access Online Magazines. Moreover, among Arts & Humanities, usage of digital resources is comparatively low as merely of 23.3% scholar'saccess either Online Reference Sources orOnline Magazines while as least accessed are ETD's.

Table 3. Use of Digital Library Resources

Type of Resource	No. of Research Scholars in each Faculty		
	Science	Social Science	Arts & Humanities
E-Journals	18(60.0)	6(20.0)	5(16.7)
E-Books	20(66.7)	9(30.0)	4(13.3)
ETD's	2(6.7)	3(10.0)	1(3.3)
Online Reference Sources	4(13.3)	9(30.0)	7(23.3)
Online Magazines	12(40.0)	8(26.7)	7(23.3)

**Data in Parenthesis represent Percentage*

Note: *Total number of users exceeds the actual number since multiple options are allowed*

USE OF DIGITAL LIBRARY SERVICES BY THE RESEARCH SCHOLARS

The use of digital services by the Research Scholars is very meager in university of Jammu as evident from Table 4. In the faculty of Science, majority of respondents 66.7% access Library Website followed by 23.3% who prefer to use OPAC while as no other services are used by them. The Research Scholars from the faculty of Social Science indicate low use of these services than those of Science Research Scholars since merely 33.3% respondent's access Library Website while as just 13.3% prefer to access OPAC. It is further found that no respondent indicates use of any other service. Further, Research Scholars from Arts & Humanities faculty reported very low use of services than the other two faculties. Since just 23.3%, respondents use Library Website while as negligible no. of respondents 3.3% access OPAC.

Table 4. Use of Digital Library Services

Services	No. of Research Scholars in each Faculty		
	Science	Social Science	Arts & Humanities
Library Website	20(66.7)	10(33.3)	7(23.3)
OPAC	7(23.3)	4(13.3)	1(3.3)
E-mail based services	0(0.0)	0(0.0)	0(0.0)
Alerting services (like article or book alert	0(0.0)	0(0.0)	0(0.0)
Current awareness service	2(6.7)	3(10.0)	0(0.0)
SDI	0(0.0)	0(0.0)	0(0.0)
E-document delivery/distribution of electronic publication	0(0.0)	0(0.0)	0(0.0)
Online instructions to use products and services in libraries	0(0.0)	0(0.0)	0(0.0)
Virtual tours of library	0(0.0)	0(0.0)	0(0.0)
Virtual reference desk/ Ask a librarian	0(0.0)	0(0.0)	0(0.0)
Library Blogs	0(0.0)	0(0.0)	0(0.0)
Podcasting/ Vodcasting	0(0.0)	0(0.0)	0(0.0)

**Data in Parenthesis represent Percentage*

***Note**: Total number of users exceeds the actual number since multiple options are allowed*

FREQUENCY OF USING THE DIGITAL LIBRARY COLLECTION AND SERVICES

Research Scholars use the digital library collection and services at varied frequencies. In this regard, it is observed from Table 5 that in the Faculty of Science preponderance of Research Scholars (50%) use digital collection & services on weekly basis followed by 40% of Research Scholarswho use these on daily basis while as (10%) of the Research Scholarsdo not use these services at all. From the faculty of SocialScience majority of Research Scholars (40%) use these services on weekly basis followed by 37% Research Scholars who use them ondaily basis and whiles (23.33%) do not use these services at all. Moreover, majority of Research Scholars (50%) from the faculty of Arts & Humanitiesreported that theynever use digital resources and services while as only 20% of them use these on daily and weekly basis followed by 10% of them who use these on monthly basis.

Table 5. Frequency of Using the Digital Library Resources

Frequency	Science	Social Science	Arts & Humanities
Daily	12(40)	11(37)	6(20)
Weekly	15(50)	12 (40)	6(20)
Monthly	0	0	3(10)
Never	3(10)	7(23.33)	15(50)

**Data in Parenthesis represent Percentage*

Note: *Total number of users exceeds the actual number since multiple options are allowed*

PERCEIVED ADVANTAGES OF DIGITAL INFORMATION RESOURCES AND SERVICES

As far as perception regarding advantages of digital resources and services is concerned Table 6 reveals that majority of Research Scholars (90%) from Science faculty access digital resources and services as these have Limitless availability of information & offers links to additional information followed by 80% of them who prefer to use them as they offer Remote Access to information. Besides, Quick links to additional information attracts 50% of Research Scholars.It is also evident from the Table 6that in the faculty Social Science majority of Research Scholars (90%) accessdigital information resources and services because theyofferRemote Access to information facility. Limitless availability of information attracts 70% of them followed by 60% of them who like multiple search ability provided by these resources and services. Quick access to information attracts 40% of them and offers links to additional information feature attract only 30%. Furthermore, it is apparently revealed that the majority of Research Scholars (60%) from the faculty of Arts & Humanities access digital information resources and services as they have Remote Access to information facilityunlike print followed by 60% of them who like multiple search ability, offers Links to additional information &quick access to information facilities. Least proportion of respondents (20%) are attracted to access these have limitless availability of information.

Table 6: Advantages of Digital Information Resources and Services

Faculty	Remote Access to information	Limitless availability of information	Multiple searching ability	Offers Links to additional information	Quick access to information
Science	24(80)	27(90)	12(40)	27(90)	15(50)
Social Science	27(90)	27(70)	18(60)	9(30)	12(40)
Arts & Humanities	18(60)	6(20)	9(30)	9(30)	9(30)

**Data in Parenthesis represent Percentage*

Note: *Total number of users exceeds the actual number since multiple options are allowed*

PERCEPTIONS OF RESEARCH SCHOLARS REGARDING DIGITAL LIBRARY RESOURCES AND SERVICES

A number of digital resources and services are being offered by the Universitylibrary to its Research Scholarsto whomthey have various perceptions. Accordingly, from Table 7 it is evident thatpreponderance of Research Scholars (90%) from thefaculty of Sciencefeeldigital library services are inadequately availablefollowed by 80% who again are of the opinion that quality of available digital services is not up to the mark, while as 56.66% of them state that digital resources and services have no effect on research work. However, 13.33% of them agree that they helped them in their research work. Inthe faculty of Social Science, majority of Research Scholars (90%) alsofeel that digital library services are inadequately available followed by 70% who are of the view that quality of available digital services is not up to the mark. Only 40% of them are state these have no effect on research work. Again, below 20% of them have other perceptions about the services and collection as highlighted in the table. Further, in the faculty of Arts & Humanities, majority of Research Scholars (90%) feel digital library services are inadequately available followed by 70% who are of the view that quality of available digital services is not up to the mark. Only 40% of them are state these have no effect on research work. In addition, least proportion of them (20%) feel that these enhances the independency in resources searching and use & helps to improve the research performance.

These findings are in tune with study conducted by **Matusiak (2012)** revealing that the users did not perceive academic libraries as a useful source of digital library services and resources.

Table 7. Scholars Perceptions Regarding Digital Library Resources and Services

Perceptions	Science	Social Science	Arts & Humanities
Enhances the independency in resources searching and Use	3(10)	5(16.66)	6(20)
Helps to improve the research performance	4(13.33)	3(10)	6(20)
Have no effect on research work	12(40)	18(60)	17(56.66)
Digital library services are inadequately available in the library	24(80)	27(90)	27(90)
Digital information resources pertaining to concerned subject are Inadequate	6(20)	17(56.66)	18(60)
Quality of available digital services is not up to the mark	21(70)	18(60)	24(80)

**Data in Parenthesis represent Percentage*

Note: *Total number of users exceeds the actual number since multiple options are allowed*

SATISFACTION REGARDING DIGITAL LIBRARY SERVICES AND COLLECTION

Satisfaction level of Research Scholars with the Digital Library collection and services in University of Jammu vary from one faculty to another. Table 8 reveals that 30% of Research Scholars from the faulty of Science are satisfied with the collection and services of the university followed by 23.33% who are dissatisfied with these, 10% of them are uncertain while as 10% of them are extremely dissatisfied. Further, majority of Research Scholars (30%) from the faculty of Social Science are dissatisfied with the collection and services followed by 23.33% of them who are satisfied and 10% are uncertain about these. Contrarily, majority of Research Scholars (26.66%) from the faculty of Arts & Humanities are dissatisfied with the collection and services followed by 23.33% of Research Scholars who are dissatisfied with these. On the other hand, 20% of them are satisfied with these libraries digital collection and services.

Table 8. Satisfaction with the Digital Library Services and Collection

Faculty	Extremely satisfied	Satisfied	Uncertain	Dissatisfied	Extremely Dissatisfied
Science	9(30)	6(20)	3(10)	7(23.33)	3(10)
Social Science	6(20)	7(23.33)	3(10)	9(30)	5(16.66)
Arts & Humanities	6(20)	5(16.66)	4(20)	8(26.66)	7(23.33)

**Data in Parenthesis represent Percentage*

Note: *Total number of users exceeds the actual number since multiple options are allowed*

MAJOR PROBLEMS FACED WHILE ACCESSING DIGITAL LIBRARY RESOURCES & SERVICES

Research Scholars face a number of problems in the library face in using digital library resources and services of which some of the main problems encountered are discussed Table 9. Majority of (86.66%) from the faculty of Science are of the opinion that no orientation is provided to them by the library followed by 6.66% who feel lack of searching skills, are unable to retrieve full-text articles as well as poor internet access. In the faculty of Social Science while as majority of the Research Scholars (90%) from are of the opinion that no orientation is provided to them by the library, 66% are unable to retrieve full-text articles and least of them (3.33%) feel lack of searching skills. Further, while as majority of the Research Scholars (80%) from Arts & Humanities faculty are again of the opinion that no orientation is provided to them by the library followed by 10% who are unable to retrieve full-text articles and feel lack of searching skills.

These findings are in tune with the study of **Khan (2012)** revealing lack of training as the main problem encountered by the users in using digital resources and services.

Table 9. Problems encountered while using Digital Library Resources & Services

Problems	Science	Social Science	Arts & Humanities
No orientation provided by the library	26(86.66)	27(90)	24(80)
Lack of Searching skills	2(6.66)	1(3.33)	3(10)
Unable to retrieve full-text articles	2(6.66)	2(6.66)	3(10)
Poor internet access	2(6.66)	0	0

**Data in Parenthesis represent Percentage*

***Note**: Total number of users exceeds the actual number since multiple options are allowed*

FINDINGS AND CONCLUSION

Digital resources and services prove to be the best medium for storage, management, and retrieval of information. In order to achieve timely, relevant and precise information, Scholars make use of various digital resources in the form of databases, E-journals, E-thesis and Dissertations etc as well as various services like Library websites, Alerting services, Current Awareness Services, Selective Dissemination of Information etc. Findings reveal that awareness and use of digital resources is low among the select scholars. However, findings related to the services reveal that though the scholars are aware and use OPAC to a greater extent but with regard to other services awareness as well as usage in very low. Further, it is also evident that frequency of using the Digital Library collection and services among scholars is mostly on daily or weekly basis. They are usually made aware about the

services by Teachers/supervisors and Colleagues/classmates. Besides, findings reveal that Scholars get attracted towards digital resources because of their remote access facility and limitless availability of information in these resources. Furthermore, scholars are of the opinion that the digital resources have less impact on their research work as Digital library services are inadequately available in their respective campus. Accordingly, there is overall dissatisfaction among Research Scholars regarding Digital Library services and collection of the campus. Finally, it is also found that scholars face various problems viz; lack of searching skills, no orientation provided by the library and lack of full-text articles. However, despite the fact to some extent scholars have positive perception towards the digital library resources and services, which is obvious from the various advantages perceived by them. In view of the fact, it is highly recommended that libraries must put in efforts to make users aware of available digital resources and services so that they may be able to understand the benefits of using these. Further, adequate measures need to be taken to impart information literacy skills for enhancing effective utilization of services by users. Such steps may certainly ensure user satisfaction.

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