Use of Online Resources Among the Students of Science & Technology Libraries of Guwahati: A Study

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Abstract

The online resources are the emerging information systems and services in every discipline and becoming more and more popular particularly in science & technology disciplines. This paper tries to evaluate the use of online resources among the science & technology students of selected libraries of Guwahati and examines the problems in accessing the online resources, student's level of satisfaction, frequency of use and various aspects of online resources.

Keywords: Online Resource, Search Technique, Training, Science & Technology, Guwahati

1.   Introduction

During the last decade major development in the libraries is the advent and spread of online information systems and services. Though there is continuous increase in print as well as online resources, but increase in online resources is very high at present. Online resources have dramatically changed the nature of resources and services in libraries. So, with the help of online resources library can serve towards the right direction to its users by taking part in various online resources models like consortia and library networks. With the various advancement of information communication technology, most of the libraries are explored with online resources and giving their best services in the form of information services. Online resources has become very popular in academic institutions and playing a vital role in the field of Library and Information science to provide better services and easy access to library.

2.   Objective of the Study

The main objective of the study is to know the existent of use of online resources among the Students in Science and Technology Institutes of Guwahati, problems faced in accessing online resources and to access the present level of satisfaction to make it more user-friendly, live and dynamic. The important objectives of the study are enumerated as follows:

a)   To know the extent of Online Resources use by the Students in Science and Technology Institutes of Guwahati;

b)   To know various problems encountered in accessing online resources and to assess the preference of print and online resources;

c)   To study satisfaction level of students in using online resources;

3.   Scope of the Study

The scope of the study confines Students in Science and Technology Institutes of Guwahati City (Kamrup Metro), Assam. The study covers the following institutes of Guwahati.

a) **Assam Engineering College (AEC)**

http://aec.ac.in/

Jalukbari, Guwahati – 781013

b) **Don Bosco University (DBU)**

http://www.dbuniversity.ac.in/index.php

Airport Road, Azara

Guwahati - 781017

c) **Assam down town University (ADTU)**

http://www.adtu.in/

Sankar Madhab Path,

Gandhi Nagar, Panikhaiti, Guwahati-781026

d) **Girijiananda Chowdhury Institute of Management & Technology (GIMT)**

http://www.gimt-guwahati.ac.in/

Hathkhowapara, Azara

Guwahati - 781017

e) **Institute of Advanced Study In Science And Technology (IASST)**

http://www.iasst.in/new/

Vigyan Path, Paschim Boragaon, Garchuk, Guwahati - 781 035

f) **Indian Institute of Technology Guwahati (IITG)**

http://www.iitg.ac.in/index

North Guwahati, Guwahati- 781039

g) **Royal School of Engineering & Technology(RSET)**

http://www.rgi.edu.in/

royal_school_engineering_amp_technology

Betkuchi, Opp. Tirupati Balaji Temple / ISBT

Guwahati-781035

4. Methodology

The methodology of the study includes mainly questionnaire method & personal interview with library professionals and also students of Science and Technology Institutes of Guwahati. 140 questionnaires were distributed to the students of Science and Technology Institutes of Guwahati those who visited the library during the survey period.

5. Analysis

For the present study 140 questionnaires were distributed equally to the Science & Technology Institutes of Guwahati, out of which a total number of 87 answered/ filled questionnaire were received back personally and later collected data tabulated and analyzed in tabular form. In the analysis part the institutes name is used in short form as follows; AEC= Assam Engineering college; DBU= Don Bosco University; ADTU= Assam Down Town University; GIMT= Girijiananda Chowdhury Institute of Management & Technology; IASST= Institute of Advanced Study in Science and Technology; IITG= Indian Institute of Technology Guwahati; RSET= Royal School of Engineering & Technology.

Table 1: Distribution of questionnaires and responses received

Library	Questionnaire distributed	Questionnaire Received		
		Male	Female	Total
AEC	20	6(46%)	7(54%)	13(65%)
DBU	20	5(42%)	7(58%)	12(60%)
ADTU	20	5(62%)	3(38%)	08(40%)
GIMT	20	10(62%)	6(38%)	16(80%)
IASST	20	5(71%)	2(29%)	07(35%)
IITG	20	9(69%)	4(31%)	13(65%)
RSET	20	10(56%)	8(44%)	18(90%)
Total	**140**	**50(57%)**	**37(43%)**	**87(62%)**

Table 1, shows that a total number of 140 questionnaires were distributed to the students and average response rate is 62% & out of the 87 students male 50(71%) and female 37(53%). Above all the students RSET has the maximum response 90% and IASST lowest response 35%, on the other hand in RSET has maximum 100% male & 80% female respondent and 100% male in GIMT.

Table 2: Experience of using Online Resources

Library	Less 1 year	1-2 years	2-3 years	Above 3 years
AEC	4(31%)	4(31%)	0(00%)	5(38%)
DBU	2(17%)	3 (25%)	3(25%)	4 (33%)
ADTU	2(25%)	3(37%)	3(38%)	0(00%)
GIMT	4(25%)	3(19%)	3(19%)	6(37%)
IASST	0(00%)	0(00%)	3(43%)	4(57%)
IITG	2(15%)	6(46%)	1(08%)	4(31%)
RSET	5(28%)	5(28%)	0(00%)	8(44%)
Total	19 (22%)	24 (27%)	13 (15%)	31 (36%)

Table 2 shows the Experience of using online resources among the respondent available through the Libraries. It also clears that of the total, 36% of students are having more than three years of experience followed by 27% less than two years, 22% less than one year and 15% less than three years. The highest 57% respondent of IASST has the experience more than three years and lowest 15% of IITG has less than one year experience of using online resources.

Table 3: Frequency of using Online Resources

Library	Daily	Weekly	Fortnightly	Rarely
AEC	2(15%)	6(46%)	1(08%)	4(31%)
DBU	4(33%)	5(42%)	2(17%)	1(08%)
ADTU	2(25%)	0(00%)	3(37%)	3(38%)
GIMT	4(25%)	7(44%)	2(12%)	3(19%)
IASST	3(43%)	1(14%)	3(43%)	0(00%)
IITG	5(39%)	4(31%)	2(15%)	2(15%)
RSET	10(56%)	2(11%)	6(33%)	0(00%)
Total	30(34%)	25(29%)	19(22%)	13(15%)

Table 3 indicates that out of the total 87 respondents, majority 34% of the students using online resource daily, where 29% weekly, 22% fortnightly and 15% rarely. It shows the growing demands of online resources.

Table 4: Duration of use of Online Resources a Day

Library	One hour	Two hour	More than two hours
AEC	6(46%)	3(23%)	4(31%)
DBU	3(25%)	3(25%)	6(50%)
ADTU	2(25%)	3(37%)	3(38%)
GIMT	6(37%)	7(44%)	3(19%)
IASST	0(00%)	3(43%)	4(57%)
IITG	5(39%)	2(15%)	6(46%)
RSET	6(33%)	4(22%)	8(45%)
Total	28(32%)	25(29%)	34(39%)

From the above Table 4, it shows that majority (39%) of the student's use the e-resources more than two hours followed by 32% are for one hour and 29% for two hours respectively in a day.

Table 5: Familiarities with the Online Resources

Library	Not at all familiar	Slightly familiar	Quite familiar
AEC	3(23%)	5(39%)	5(38%)
DBU	3(25%)	4(33%)	5(42%)
ADTU	3(37%)	1(13%)	4(50%)
GIMT	5(31%)	6(38%)	5(31%)
IASST	0(00%)	2(29%)	5(71%)
IITG	0(00%)	8(62%)	5(38%)
RSET	7(39%)	3(17%)	8(44%)
Total	**21(24%)**	**29(33%)**	**37(43%)**

Table 5 exhibits that overall 43% respondents are quite familiar, 33% respondents slightly familiar and 24% respondents not at all familiar with the online resources available.

Table 6: Preference of Online Resources Over Printed Resources

Library	Online	Printed
AEC	7(54%)	6(46%)
DBU	6(50%)	6(50%)
ADTU	7(87%)	1(13%)
GIMT	7(44%)	9(56%)
IASST	3(43%)	4(57%)
IITG	8(62%)	5(38%)
RSET	12(67%)	6(33%)
Total	**50(57%)**	**37(43%)**

Table 6 indicates that out of 87 respondents majority (57%) of students are preferred online resources and 43% of the respondents has preferred printed resources, which shows the popularity of online resources over printed resources.

Table 7: General Level of Satisfaction with Online Resources

Library	Not at all satisfied	Slightly satisfied	Quite satisfied
AEC	3(23%)	3(23%)	7(54%)
DBU	0(00%)	4(33%)	8(67%)
ADTU	1(12%)	2(25%)	5(63%)
GIMT	0(00%)	9(56%)	7(44%)
IASST	1(14%)	1(14%)	5(72%)
IITG	0(00%)	4(31%)	9(69%)
RSET	5(28%)	8(44%)	5(28%)
Total	**10(11%)**	**31(36%)**	**46(53%)**

The analysis of Table 7 indicates that majority (53%) of respondents are quite satisfied followed by 36% slightly satisfied and 11% not at all satisfied with online resources.

Table 8: Search Approach/Technique used for Online Resources

Library	Boolean logic	Key word	Author	Subject	Title	Phrases	Field Search
AEC	0 (00%)	0 (00%)	9 (45%)	2 (10%)	7 (35%)	1 (05%)	1 (05%)
DBU	0 (00%)	6 (21%)	4 (14%)	8 (29%)	5 (18%)	3 (11%)	2 (07%)
ADTU	2 (20%)	4 (40%)	0 (00%)	1 (10%)	2 (20%)	0 (00%)	1 (10%)
GIMT	0 (00%)	7 (41%)	0 (00%)	3 (18%)	6 (35%)	1 (06%)	0 (00%)
IASST	1 (07%)	1 (07%)	5 (36%)	3 (22%)	2 (13%)	1 (07%)	1 (07%)
IITG	2 (06%)	10 (31%)	3 (09%)	6 (18%)	7 (21%)	2 (06%)	3 (09%)
RSET	0 (00%)	3 (14%)	7 (33%)	2 (10%)	0 (00%)	7 (33%)	2 (10%)
Total	**5 (4%)**	**22 (16%)**	**28 (21%)**	**25 (19%)**	**29 (22%)**	**15 (11%)**	**10 (7%)**

Table 8 indicate that majority (22%) of respondents are using title search, 21% respondents are using author search, 19% respondents are using subject search, 16% respondents are using keyword search, 11% respondents are searching with phrases, 7% respondents searching by field search, 4% respondents searching by Boolean logic.

Table9: Problems Faced in using Online Resources

Library	A	B	C	D	E	F	G	H
AEC	6 (25%)	7 (29%)	4 (17%)	3 (13%)	1 (04%)	0 (00%)	2 (08%)	1 (04%)
DBU	3 (18%)	8 (47%)	4 (23%)	1 (06%)	0 (00%)	1 (06%)	0 (00%)	0 (00%)
ADTU	3 (21%)	5 (37%)	3 (21%)	0 (00%)	2 (14%)	0 (00%)	0 (00%)	1 (07%)
GIMT	4 (22%)	6 (33%)	7 (39%)	0 (00%)	0 (00%)	1 (06%)	0 (00%)	0 (00%)
IASST	1 (16%)	1 (17%)	4 (67%)	0 (00%)	0 (00%)	0 (00%)	0 (00%)	0 (00%)
IITG	2 (09%)	6 (29%)	6 (29%)	3 (14%)	0 (00%)	1 (05%)	3 (14%)	0 (00%)
RSET	0 (00%)	6 (33%)	7 (39%)	5 (28%)	0 (00%)	0 (00%)	0 (00%)	0 (00%)
Total	19 (16%)	39 (34%)	35 (30%)	12 (10%)	3 (2%)	3 (2%)	5 (4%)	2 (2%)

A=Non relevant resources

B= Slow download

C= Restrict of some resource access

D= Lack of awareness

E=Frequent power cuts

F=Lack of guidance and training

G= Lack of sufficient computer

H= Lack of support from staff

It is found from Table 9 that majority (34%) of respondents have problems in using online resources due to Slow download, 30% respondents have problems due to Restrict of some resource

access, 16% respondents have problems due to non relevant resources, 10% respondents have problems due to lack of awareness of online resources, 4% respondents have problems due to lack of sufficient computer, 2% respondents have problems due to frequent power cuts, Lack of guidance and training and lack of support from library staff.

Table 10: Types of Online Resources use

Library	A(%)	B(%)	C(%)	D(%)	E(%)	F(%)	G(%)	H(%)	I(%)	J(%)
AEC	11 (50)	2 (09)	0 (00)	0 (00)	5 (23)	0 (00)	0 (00)	3 (14)	0 (00)	1 (04)
DBU	7 (20)	7 (20)	1 (03)	2 (06)	6 (18)	1 (03)	3 (09)	3 (09)	3 (09)	1 (03)
ADTU	3 (22)	4 (29)	2 (14)	0 (00)	2 (14)	0 (00)	0 (00)	3 (21)	0 (00)	0 (00)
GIMT	2 (07)	7 (24)	3 (10)	6 (21)	1 (04)	1 (03)	2 (07)	4 (14)	1 (03)	2 (07)
IASST	4 (22)	1 (05)	0 (00)	1 (06)	4 (22)	2 (11)	1 (06)	1 (06)	2 (11)	2 (11)
IITG	11 (23)	11 (23)	2 (04)	5 (10)	7 (14)	3 (06)	2 (04)	3 (06)	2 (04)	3 (06)
RSET	8 (28)	9 (31)	1 (03)	4 (14)	2 (07)	0 (00)	0 (00)	4 (14)	0 (00)	1 (03)
Total	46 (24)	41 (21)	9 (5)	18 (9)	27 (14)	7 (3)	8 (4)	21 (11)	8 (4)	10 (5)

A= E-journals

B=E-books

C=Web directories

D=Online databases

E=Newspapers

F=Web based OPAC

G=Videos

H=Discussion forum

I=Library Consortia

J= Conferences and Research reports

Table 10 illustrates the various types of online resources used by the respondents; analysis shows that majority (24%) of respondents are using E-journals followed by 21% respondents are using E-books, 14% respondents are using Newspapers, 11% respondents are using discussion forum, 9% respondents are using Online databases, 5% respondents are using Web directories as well as Conferences and Research reports, 4% respondents are using video and library consortia, only 3% respondents are using Web based OPAC. It shows that library consortia are not playing a good role as most of the libraries are not having library consortia in their library.

Table 11: Training needs of the Students

Library	Online Search and Retrieval Techniques	Awareness to Library Resources	Filter Resources Effectively
AEC	2(15%)	7(54%)	4(31%)
DBU	4(24%)	8(47%)	5(29%)
ADTU	3(34%)	3(33%)	3(33%)
GIMT	7(39%)	5(28%)	6(33%)
IASST	1(12%)	3(38%)	4(50%)
IITG	5(30%)	6(35%)	6(35%)
RSET	6(33%)	9(50%)	3(17%)
Total	**28(28%)**	**41(41%)**	**31(31%)**

Table 11 shows the training needs of the students, maximum (41%) of students are not awareness to the online library resources which shows the lack of library orientation and proper guidance of library professionals. It also shows that a large population of students 31% needs training to filter online resources and 28% students need search and retrieval technique.

6.　Suggestions

In order to make online resources more useful and increase the usability by the students of Science & Technology Institutes of Guwahati, here the following suggestions are required to be addressed;

a) In order to satisfy the students need the online resources are playing important role, so online resource collection development is also very important.

b) Library Professionals should make the students aware about the available tools that are use in the accessing online resources.

c) Internet connectivity and accessible download speed should be improved.

d) Students should make aware about the available online resources as well as the open access ("Free to Read" and download) resources.

e) Training in online resource management, collection development should be offered to library professionals.

f) The orientation programme/ workshop on the use of online resources should be conducted regularly to fresh students.

g) The power supply and back up facility should be improved in the library.

h) There should be a provision for proper evaluation of the feedbacks of students.

i) The libraries should conduct regular evaluation and assessment to determine the effectiveness of the subscribed online resources in meeting information needs of the students.

j) Provide training on information retrieval skills at all level which is appropriate to the individual needs of the students.

7. Conclusion

In the conclusion, it may say that online resources are the most supporting tool in academic purpose for any students. Presently the library consortium is quite popular among the academic libraries at national and international level. The online resources help to improve the quality education and research work. Online resources are the wave of future and library should start carefully planning with the online resources including preparation of online resource collection development policy, employing sound selection criteria and monitoring the use of online resources. The success of online resource services depend upon the different competencies of the librarian and library professional possesses. The result of the study offer significant information on the level of awareness and use of online resources among the students are very much encouraging.

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