# E-Resources: Efficiency & Utility

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***Abstract:*** ***Today availability of e-resources in a university library is very common. But the proper and maximum use is a matter for discussion. Many research studies have focused on how people use electronic resources or on their feelings about electronic and print resources in the library in the last several years. These usage studies draw many conclusions about the behavior and preferences of library users, although sometimes the conclusions are contradictory or unclear. This studies use a variety of research methods, including observation, surveys, interviews, experiments and transaction log analysis. Some surveys or interviews ask questions about preference, including how users feel about the library or about specific media; others ask questions that provide information on user behavior. Observations, experiments, and logs also show what users do, but do not always reveal preferences or motivations. Each of these methods allows different types of conclusions and it is only when they are taken together that we can get a full picture of what users actually do, what they would prefer and what they are likely to do in the future. The findings confirm the importance of e-resources to partner institutions, as they are used daily by staff in all areas of their work. We also found that there are many areas of good practice and innovative use of these resources for administrative, marketing and teaching and learning purposed. There is also a considerable amount of research based on the use of e-resources, particularly in the specialist colleges. Most institutions have either a formalized e-learning leader; or all institutions offer staff training in this area. There are two areas of e-resource use that are particularly well developed; firstly the use of social networking sites (Facebook and Twitter) as well as the Youtube website, e.g. for marketing and as a learning and teaching aid.***

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## INTRODUCTION

The advances in computer applications during the past few decades have brought radical changes in the way information is gathered, store, organized, accessed, retrieved and consumed. The application of computers in information processing has brought several products and services to the scene. The Internet and the Web are constantly influencing the development of new modes of scholarly communication; their potential for delivering goods is quite vast, as they overcome successfully the geographical limitations associated with the print media. Further, the distribution time between product publication and its delivery has been drastically reduced. The internet can be used for efficient retrieval and meeting information needs. This is very important for university libraries since most of them call for more and more research work. This important fact is convincing many libraries to move towards digital e-resources, learners who have limited time to access the libraries from outside by dial-up access to commonly available electronic resources, mainly CD-ROM, OPACs and Internet, which are replacing the print media.

Libraries of all sizes and types are embracing digital collections, although most libraries will continue to offer both print and digital collections for many years to come. The availability of journals, magazines and abstracting and indexing services has opted for digitalization and e-books are taking the proper space with the digitalization of library collections along with the hard copies of books.

When total processing and space costs are taken into account, electronic collections may also result in some overall reductions in library costs. This dramatic switch from print collections to digital collections has an impact on library users and users' perceptions of the library. Many researchers have attempted to predict or measure that impact through surveys, transaction log analysis, and other research techniques. Librarians would like to be able to use the information and conclusions generated by the many research studies, especially because it is time consuming to conduct good research on their own and because the best measures of impart come after decisions are already made and collections are converted.

Libraries have witnessed a great metamorphosis in recent years both in their collection development and in their service structure. Over the last several years, a significant transformation has been noticed in collection development policies and practices. Print medium is increasingly giving way to the electronic form of materials.[1]

## OBJECTIVES

The main objective of this study is to analyze dependency of the teachers and research scholars on e-resources, the perceived impact of the e-resources on their academic efficiency and problem faced by them while using the e-resources. This survey was particularly conducted to assess the benefits of the e-resources over conventional sources of information.

Some of the major objectives are to:

- Know the different types of electronic resources and services available in the various library;
- Study the different types of electronic resources used by teachers and research scholars;
- Study the purpose and frequency of using the electronic resources and services available in the library;
- Locate the impediments faced by the teachers and research scholar while accessing and using the electronic resources in the library;
- Study the impact of electronic resources and services on the academic work of the teachers and research scholars;
- Know the productivity and quality of information retrieved through e-resources.

## PREVIOUS STUDIES

A number of relevant studies have been carried out on the use of e-resources by teachers, students and research scholars of universities and research organizations. Seventy-eight percent (78%) of the respondents feel that the use of the UGC-Infonet e-journals has created high dependency value on their research work and they needed current article alert services and electronic document supply services[2]. 67.64% of research scholars of faculty of science and 69.23% of research scholars of engineering use e-journals for research work whereas 35.29% of sciences use e-journals to update knowledge and 23.70% of engineering use these for study[3]. The speed of availability and the ease of accessibility of information cause the users to use electronic resources more frequently[4]. 49% of respondents are marginally satisfied with online services provided by the library. The survey indicates that the use of e-resources in Jamia Millia Islamia is not satisfactory and needs constant guidance/orientation to enhance their usage[5]. E-journals are becoming a basic need for the academic research scholar every day. Navjyoti finds that speedy publication and availability on the desktop are the key advantages that attract research scholars[6]. Lack of training is a major de-motivating factor in the usage of e-journals, so that needs to be improved. Kennedy proposes the inclusion of Web pages to the library catalogue as a solution to the maintenance of increasing web site links[7]. Kaur reports e-resources can be good substitutes for conventional resources if the access speed is fact, access to all the important e-journals is provided and more computer terminals are installed to provide access to e-resources[8]. Renwick recommends there be greater promotion of the library's e-resources[9]. Kaur and Verma find that users use all the sources available to them regularly, like CD ROMs, online databases, Web resources and audio/video tapes.[10] A large number of earlier studies of users of electronic journals have appeared in the last few years. Tenopir[11] in a major survey of the literature on the subject analyzed the results of over 200 studies of the use of electronic resources in libraries published between 1995 and 2003. Results drawn from this study indicate that electronic resources have been rapidly adopted in academic spheres, though the behavior varies according to the discipline. In a significant study Jamali, Nicholas and Hautington[12] presented the conclusions of several studies that used log analysis to study the use and users of electronic journals. These papers focused the formats preferred by the end users where it was documented that the users prefer the PDF rather than HTML format.

The results are of these studies will enable to infer many interesting features. The major finding is:

- The usage of electronic journals increases with time.
- The variables such as age and/or academic position are inversely related to the use of electronic format and journals.
- There is decrease in the use of printed journals as users prefer and use the electronic format more.
- When time passes many users access the electronic format more frequently.
- The use of a journal is not necessarily an indication of the preference of users. There may be an increase in the acceptance and frequency of use of the electronic format merely because the traditional print format is no longer easily available.

The primary factor analyzed in the studies of users carried out is the variables determining the end users' behavior in the use of electronic resources. Clearly different behavior can be identified according to variables such as discipline, age and academic position. While studying the subjects, it seems that teaching and research staff in exact and

natural sciences, who were in fact the first to adopt electronic journals, are the most active users of titles in electronic format.[13] This may be related to the fact that according to several studies.[14]

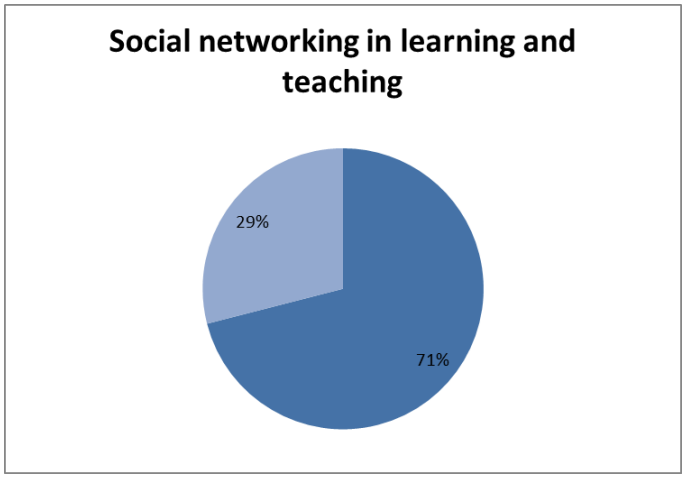
## SOCIAL NETWORKING

All institutions have a strong presence on social networking sites such as Facebook, Twitter and at least audio-visual content on the YouTube website. The main thrust of the use of social networking sites is for advertising and marketing purposes. All institutional web pages, for example, allow the user to follow updates on a wide variety of newsfeed applications and pages, as well as social networking sites such as Myspace and Facebook.

## USE OF SOCIAL NETWORKING TOOLS FOR LEARNING AND TEACHING

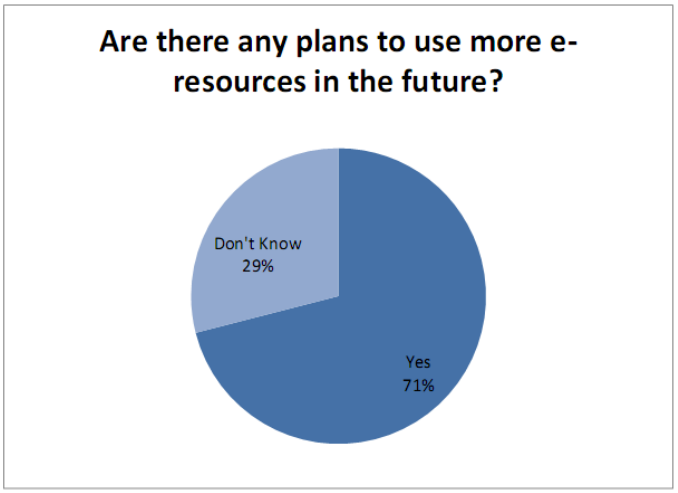
Not only social networking technologies are being used by partner institutions for marketing purposes, there is innovative and pioneering use of these technologies for learning and teaching. However, this work is conducted by a minority of academics and tutors with the institutions, is often not supported by centralized IT service departments, and is not well disseminated between subject areas or schools. These e-resources are more often that not being used by highly IT literate staff that could be seen as e-resource "champions" within their institutions.

When asked the question: "Do any of your staff use social networking resources for learning and teaching?" 20% said they were not sure, and 79% said that they did.




Although most institutions use these e-resources, the types of social networking tools used in partner institutions vary. For example, there are many Facebook pages for specific subjects or tutorial groups, which are used in conjunction with VLEs and wikis as informing learning sites and for the dissemination of course related information. There are also a number of more interactive social networking tools being used for learning and teaching purposes.

### Future use of E-resources




It is unsurprising that the majority of respondents confirmed that there were plans for future use of e-resources. This was validated by the interviews as many institutions are already expanding, updating, or including new e-resources in their institutions.

When asked "What current manual operations could be automated?" the responses were:

- Student registration
- Staff rosters for service desks
- Databases
- PC Booking
- Print Management

## SUPPORT OF E-RESOURCES

Through the interviews we found that many innovations around the use of e-resources came from particular individuals in a variety of academic schools, who had an interest in specific applications of e-resources to learning and teaching. Much of this work is done without the support of the centralized IT service departments. However, we also found that once some of these technologies had been "piloted" in this way, IT departments will then accommodate the use of these e-resources. We found this to be the case with podcasting

and video conferencing in one HEI. It was only when academic staff had initiated the use of these technologies, and had used them for learning and teaching or for research purposes (sometimes for years), that IT departments began to support them.

The following list was in response to the survey question: "What e-resources are supported by the IT department?"

- Blackboard
- Student record system
- E-mail
- Most of the ones previously mentioned
- Library supports all e-resources
- Centrally supplied software e.g. office
- Almost all resources are supported by the IT department
- General technical support from IT department on all e-resources & IT problems
- Too many to list
- MS Office
- Inspiration
- Other access disabilities software
- IT suites, open access PCs, standard software set: MS Office, Adobe Creative Suite
- Specialist software: Sibelius, Earmaster
- Accessibility software: Inspiration, Supernova, JAWS
- All E-resources are now managed by the Learning Resources Service

## POSITIVE AND NEGATIVE OUTCOMES FROM THE USE OF E-RESOURCES

The survey asked the open ended question: "What have been positive outcomes from the use of e-resources?" The responses were as follows:

- Greater and quicker access for students to materials to support their learning
- More interaction in face to face and blended teaching
- Consistent delivery between different members of the team due to shared e-resources e.g. power points.
- Much more effective delivery of lectures using online film clips etc.
- Students like podcasts
- Ease of use and improved communication with students
- Ease of use and increased ways of communication with students
- Satisfaction because of provides equitable access to off-campus work based and off-shore learners
- Extended access, management data, simplified services
- The information obtained was of good quality, peer reviewed and reliable
- Improved student success.
- More student participation, accessing materials when off sick etc.
- Allows 24/7 access to resources, not limited to when the physical library space is open
- Can be easily customized to meet differing needs of users
- Accessibility to all (including disabled students), and downloading individually versus print runs.
- Higher attendance and retention reported by Languages Manager
- Enhancing student experience
- Accessibility
- Access to resources

It is clear that the majority of these answers are around the improvements that these resources provide students – such as increased accessibility to resources, and links to higher attendance and engagement. The second largest category here is the simplification of administrative tasks.

However there were also comments expressed that showed the negative side to e-resources:

- Haven't got complete single sign on so users need different usernames/passwords to access externally hosted blogs etc.
- Perception by academics that if you put the materials online the students won't attend the classes
- When the system doesn't work you can be left high and dry! No lecture notes and no means to deliver your content
- Reduced face to face contact with students
- Fear from staff around new technologies
- Concern around loss of face to face contact with students
- Some licensing restrictions
- Plethora of passwords with insufficiently developed portals
- Network failures can ruin the excitement of using E-resources
- Teacher time
- Can be a steep learning curve
- Raises expectations that sometimes cannot be met
- Lack of skills, GRRRRRRRRR and teeth gnashing when something simple turns out not to be so simple
- Increased workload for part-time tutors
- More support needed from already overstretched IT department
- Lack of audit trail
- Need to train staff to use them, change of culture in teaching methodology, exclusion of IT illiterate learners and resistance from IT-Phobic staff.

Here, the negatives mainly revolve around the possibility of reduced time with students, and failing systems.

## CONCLUSION

The results of the study offer significant information on the level of awareness and use of electronic journals in academic institutions, the characteristics of the users and their evaluation of the journal collection. There is phenomenal increase of the electronic collections and the correlation between the availability and awareness in the last ten years is found among teaching and research users, where many of the participants aware of the electronic journal collection available in their institution. The young participants who use electronic journals show high level of awareness of the collections and willing to resort for more electronic journals. Hence we believe that the data and results would enable to target the users with respect to the age groups and disciplines for orientation.

A large number of participants understand that the number of electronic journals is increasing and the number of print versions is decreasing, and they resort to the electronic format. Many participants reveal that they would use the print occasionally if more electronic journals are available and this is observed particularly for young generation. While the participants in Biomedicine and Engineering and particularly the younger generation was more favorable to change, whereas those in Social Sciences and Mathematics and the older users were reluctant to a notable degree.

It is observed that doing research increases the opportunity for using electronic journals. It also found a significant correlation between the reason for consulting the journals and the age of the participants. The young users are inclined for electronic journals particularly for study, research and carriers, whereas older participants use them for both research and teaching. The broader level findings show the greater use of electronic journals among young academic users which would be not only due to their high level of knowledge with new technologies, but also to the fact that they are more active in carrying out research.

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