Increasing the Discovery and use of e-resources in University Libraries

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Abstract

There is a large quantity of subscribed e-resources in our libraries and they contain quality information, though expensive. In spite of advantages in terms of access and search capabilities, they are underused. Systematic plan has to be in place for their promotion of use. While a good ICT infrastructure is a prerequisite, it alone will not do. Proactive strategies are required and these need to be adopted imaginatively. Access to e-resources need to be made easier for both on campus and off campus users. As a priority, active users need to be identified and they need to be converted to heavy users of e-resources. Secondly, non users be converted to active users Various methods have to be tried in order to grab the attention of the users towards the e-resources. User training will increase the confidence level of the users. Traditional awareness methods include : Personal visits, user training, brochures, posters and displays. Newer technologies from the Web 2.0 such as RSS alert service, Blogs, Wikis and Facebook make the interaction with the library not only interesting but also add more value. Finally, the effectiveness of various promotional strategies need to be measured by monitoring the usage and user feedback.

Keywords: Electronic Resources, Library Marketing, Information Literacy, Web 2.0, Library 2.0

1. An inconvenient truth

An ever increasing amount of money is spent on e-resources in our libraries so are the number of titles which come in electronic format. For example, as per a study commissioned by British Library, UK, it is estimated that by 2020, 40% of UK monographs will be available in exclusive electronic format while another 50% will be available in both print and digital [(1)] . British Library predicts a switch from print to digital publishing by the year 2020, with 90 per cent of the British research monographs being published in electronic format by that date.

But, contrary to what many of us perceive, the use of e-resources in our libraries is much less than what we would like to see. The following two cases in my own institution illustrate the point.

In 2007-8, my university subscribed to an e-book resource having over 15000 high class text books at an annual subscription Rs 45 lakhs . The database was made available both to our on-campus and off campus students, totaling over 22000. In spite of having excellent infrastructure and internet connectivity even in our hostels, only 5385 users registered for this service. At the end of one year, we found that during the whole year, the total hours spent by all these users on this resource was only 8700 hours. Out of this, off campus students spent 7666 hours and on campus students spent 1034 hrs. Average time spent by each student reading the e-books in a year was just 1 hr 37 minutes.

Second example. Last year, on specific requests by the faculty, we subscribed to seven high impact factor e-journals at the subscription cost US $ 11151. But at the end of the year, we were disappointed to

notice a total downloads of 1507 articles in entire one year. Out of these, one journal never got even a single download !

According to Williams (2006), academic libraries spend millions of dollars a year on electronic resources, yet many of them are underutilized and unknown to users.

In a study conducted in Duke University Library (2) of North Carolina in US, it was found that most of the specialized databases subscribed by the library were not used, they tend to be neglected since they were not too general and did not appeal to the entire user population.

According to a recent survey, 96% of Americans said that they had visited a library in person, but less than one third had visited their online library. Yet, increasingly libraries are spending on online resources (Fagan, 2009).

As per the survey on 'Perceptions of Libraries and Information Resources' undertaken by OCLC (www.oclc.org/reports/2005perceptions.htm. Acessed on

14.1.2009), which surveyed the information seeking behavior of over 3300 respondents, only 16% of respondents had ever used an online database and only 30% had ever used a library website. Yet, 72% of them had used free search engines like Google. The report concludes, 'Majority of information seekers are not making much use of the array of information resources (online magazines, databases and reference assistance, for example) which libraries make available to the communities'. The survey also showed that 39% of new information seekers learn about new electronic information sources through promotion or advertising as opposed to only 15% by message in the library sites. The librarian was ranked the lowest, at 8% as a source of information about e-resources.

According to another study called Pew Internet and American Life Project (www.pewinternet.org/pdfs/PIP_College_Report.pdf. Accessed on 14.1.2009), free search engines such as Google are the first choice of research for 80% of the respondents; the online library only for 6%. The study also showed that the information that costs money to obtain was cited by only one per cent of the respondents as a sign of reliability. 93% said that they do not trust information more if they pay for it. 90% of the respondents are satisfied with the most recent search for information using a search engine.

2. E-resources are expensive

It is a myth that e-books and journals are inexpensive. In fact, the reverse is true. During 2008, my university spent Rs 13 lakhs for IEEExplore subscription but total downloads were only 39758 for the whole year, pushing the average cost per download to Rs 95 per article.

Average licensing fee for an e-book on engineering subjects (CRC and Springer) is US $ 30 (3)

Average annual licensing fee for an Elsevier e-journal for 2009 is US $ 1608(4) which the majority of Indian libraries cannot afford. However, the silver lining is that the fee for the consortium members is much less (5). The following table indicates :

Table 1 : Average licensing fee for 2009 as per INDEST approved prices

Resource	Average licensing of e-journal (Indest Consortial price)
American Society of Civil Engineers (ASCE) (31 journals)	Rs 5852
Emerald (150 journals)	Rs 1939
American Society of Mechanical Engineers (23 journals)	Rs 6556
Elsevier Science Direct – Engineering combined (240 journals)	Rs 4743

Though the prices seem to be affordable, one fact we should not ignore is that what we pay is valid only for one year and we are not entitled to this year's content if we fail to renew subscription next year too. Besides, in the case of consortial model, we are forced to subscribe for bundles which contain a large number of titles many of which we would never use.

3. Low awareness of online resources

One of the reasons for the slow uptake of e-resources is that its awareness among our users does not seem to be adequate as several studies indicate.

In a study of 143 faculty members in J D Institute of Engineering & Technology, Lohara, Maharashtra in 2007, 38% of faculty said that they were not using the e-journals because of lack of awareness (LABHASETWAR, 2007)

In a study of 300 faculty members from IIT Delhi and IIT Kanpur in 2007, 35.66% of faculty expressed the lack of awareness of e-journals in the Institute. (NISHA and NAUSHAD ALI, 2007)

In another study conducted in six universities of Karnataka state in which 845 research scholars participated, 37.86% of research scholars expressed the lack of awareness of e-journals (GOWDA and SHIVALINGIAH, 2007).

In one more study of 378 post graduates and research students in B A Marathwada University, Aurangabad, 29% of research scholars said that they were not familiar with

the concept of e-journals (GOLWAL, SONWANE and VAISHNAV, 2007).

Therefore, increasing the awareness of e-resources is one of the initial steps to enhance their use.

4. Challenge : Too much information

The major difficulties facing both librarians and the users alike is the huge deluge of information on one hand and various communication media trying to grab the attention of the library users on the other. In this process, the user finds too little time to select information material which is reliable and is of good quality. In such a situation, the user tends to follow the "Law of Least Effort" and takes recourse to "Googling" though this is not ideal. "Googling" provides brief information on any topic quickly and easily though it may not be comprehensive and of good quality.

The following paragraphs discuss some of the tried methods to promote the use of e-resources. Though the examples relate to university campuses, they are equally relevant to other situations as well.

Wilson mentions that there are three aspects to successfully getting users to use the licensed e-resources : promoting them, making them easy to find on the library website, and providing seamless access to them (WILSON, 2004). We need to note

that as of now, e-resources and print resources compliment each other. Therefore, the promotion of e-resources should not be done as an isolated activity. It has to be done in conjunction with the print resources under the overall promotion plan for library usage.

5. Good IT infrastructure is a prerequisite

Good IT infrastructure in the campus gives a boost to the use of e-resources and transforms the information habit. Study by Moghaddham and Talawar (MOGHADDHAM and TALAWAR, 2008) indicates that the free full text access from one's computer round the clock is considered as the most appealing feature by the scientists. On the other hand, various studies which probed into the reasons for not using the e-journals found out that lack of infrastructure, slow speed, lack of adequate computers, lack of printers, restrictions on the computer hours, etc constitute the major hindrance in the exploitation of e-resources in universities (LABHASETWAR, 2007; NISHA and NAUSHAD ALI, 2007; GOWDA and SHIVALINGAIAH, 2007; GOLWAL etc, 2007; NIGAM and SARMAST, 2007).

Some features of good ICT infrastructure are given below

5.1 Campus LAN :

Providing a computer network for the entire campus including offices, library, laboratories, hostels, staff residences etc is an efficient way in order to ensure the availability of e-resources all over the campus round the clock. Cost of networking in the campus is coming down. Preferably for getting seamless access to full text databases, videos and voice data, the system has to be capable of providing minimum 100 Mbps bandwidth on every node.

5.2 Wi-Fi :

Wi-Fi uses radio waves to provide high speed internet and network connections within a transmission range of about 100 meters. Wi-Fi inside the library enables LAN to be deployed without wires. This will facilitate a large number of users to access e-resources on their laptops or on the library's terminals. Wi-fi reduces the cost of wiring the entire library.

5.3 Bandwidth :

This refers to the amount of data transferred from the website in a prescribed amount of time. More the bandwidth, faster will be the data transfer. Since the amount of audio and video files available on the net is increasing rapidly, we need adequate bandwidth. The silver lining is that the cost of bandwidth is coming down steadily

5.4 Leased line :

Leased line is a dedicated line connection to the internet and is always active. In contrast to the dial up line, the leased line is highly reliable. In order to provide good user experience and enable seamless access to internet, leased line is recommended. Leased line facilitates the search of information resources any time in the campus, uninterrupted.

5.5 Virtual Private Network (VPN) :

Virtual private network enables use of library resources by remote users such as students and faculty who are traveling or research scholars who wish to access library resources from their homes during vacation. This facility will be a boon for academics and consultants who need to consult e-resources while they travel.

5.6 PC Configuration :

It is essential that the computer terminals provided in the library are efficient. Processor speed, RAM,

Operating system etc make a lot of difference on the performance of the computers and user's experience. Advice from the hardware experts be sought regularly in order to upgrade the ICT infrastructure in the library.

5.7 Maintenance and Upkeep :

It is also necessary to check the condition of computers on daily basis and ensure that the proxy settings, anti virus software, browser, mouse, keyboards, UPS etc all work efficiently. IP addresses of the computer terminals also get changed often in case of networks following Dynamic IP address protocol. Any problem at the point of delivery will turn the users away and it will take a lot of efforts to correct the bad impression if a user develops.

5.8 Helpline :

Ideally there has to be a helpline throughout the library hours (or even round the clock) to trouble-shoot problems relating to e-resources. Helpline be handled by competent staff. There is nothing more frustrating than finding no one to help when you badly need some information.

6. Access Control

Access to e-resources within a campus has to be preferably through IP authentication since password hinders the usage. However, for those who wish to use the database outside the campus, password may be used. In this connection, **Athens** is a good innovation which provides a single user name and password to many online resources subscribed by the library. There are over 250 resources which are compatible with Athens (LEAHY). **Athens** is popular in UK universities though its user population is spreading to other countries as well. **Athens** provides the users access to the resources anywhere in the world. While the campus users access through IP authentication system without any identification, for those who wish to use the resources outside the campus, **Athens** goes a long way towards removing the barrier to use of the various logons and passwords.

7. Good Library Website

Library website is a shop window to the e-resources and it has enormous potential to attract people to the e-resources, yet it is very poorly used globally.

According to a survey conducted by OCLC in which over 3300 online information seekers participated, only one percent of them used library websites as a source to begin the information search [(6).] There are many guidelines for the development of library websites (BHAT, 2008). The following are some specific points which help in increasing the use of e-resources.

- Provide link to the library homepage from the university homepage
- Provide links to e-resources from the library homepage, prominently
- Provide both alphabetical and subject wise journal lists as well as vendor wise lists
- Provide telephone numbers and email addresses of library staff for any help
- Provide subject guides to online resources
- Provide facility to register online for training sessions

Since the library website showcases the library, it is important that it is promoted well so that we can ensure good traffic to it. Therefore, it is ideal if the link to the library website is given right from the homepage of the parent organization.

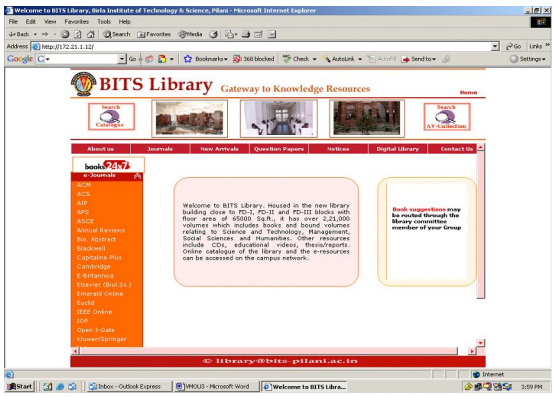

Figure 1 : Library website wherein e-resources are prominently visible

Note : All e-resources are linked directly from the library homepage in order to enhance their visibility.

8. Internal marketing to staff

Philip Kotler said, 'All employees in an organization are involved in the process of marketing and can either carry out or destroy the marketing"

It is essential that the library staff especially those who are frontline are kept well aware of the various e-resources available and they need to know the strengths and limitations of every e-resource. Often when the user has an information problem, he/she may approach any library staff and not necessarily the Librarian. Therefore, all professional staff of the library be able to suggest alternative sources of information. Some ways of internal marketing to the library staff :

(i) Run Monthly Online Resource Challenge : This involves sending some interesting questions to the library staff which can be answered by using the online resources. Gifts or certificates will motivate the staff to participate in this competition.

(ii) Run Regular Training Sessions : Prepare a training package in order to cover all e-resources. These programs be run on regular intervals

(iii) Encourage staff to experiment with online resources. Tell them that it is perfectly right to search online resources during their leisure time.

(iv) Involve staff in the selection and evaluation of online resources.

(v) Encourage the staff to use the databases for their own study and development

(vi) Involve maximum staff in vendor training sessions

(vii) Create an online forum for staff to share ideas relating to e-resources.

9. First phase, target the heavy user and second phase, convert non user to active user.

In the first phase, heavy users are the ones to whom the promotion activities can be started. In the second phase, we can identify the non users and convert them into active users. Several studies have identified the heavy users of e-resources in our libraries. Physicists, for example, are high users of e-print services and read more articles per year than engineers, but fewer than chemists. Medical faculty with PhD degrees on average, prefer electronic sources more often than medical faculty with MD degrees. Scientists who work in academia generally read more than those in corporations or government laboratories [7] Gowda and Shivalingaiah indicate that research scholars in Science disciplines would give more preference to electronic resources than the printed resources as against the scholars of Humanities and Social Sciences who prefer the printed resources (GOWDA and SHIVALINGAIAH,

2007). Undergraduates, by and large, use the textbooks more and their use of e-resources is minimal.

10. Promoting the use by traditional methods.

Various traditional methods are available and they continue to be effective. They are listed below :

10.1 A-Z lists of journals : Providing a list of e-journals subscribed and providing a direct link to the journals either from the library homepage or from the OPAC. This will ensure that the user does not miss out a particular periodical though it is hidden in a database. Such periodical list can be made alphabetically title wise.

10.2 Access e-books through library OPAC. Some library automation packages do allow the integration of e-books metadata with library OPAC provided the metadata is in the standard format. Integration allows a single point of search both for print and e-books

10.3 Subject guides compiled by the library staff comprising of evaluated printed and e-resources. These subject guides are put on the library website.

E.g. University of Delaware Library Subject Guides http://www2.lib.udel.edu/subj/ (Accessed on 24.1.2009)

http://www.lib.polyu.edu.hk/ (Accessed on 25.1.2009)

Some libraries bring out course specific subject guides as given in the following website : http://library.csusm.edu/guides.asp (Accessed 25.1.2009)

10.4 Banners, posters, brochures, bookmarks, emails etc : Use of printed brochures, flyers, posters, bookmarks etc should not be underestimated. Such flyers, brochures, bookmarks etc be made freely available in various service points in the library. Posters be pinned in library, hostels, faculty meeting places etc. Various e-journal publishers have brought out templates of banners, posters, brochures, bookmarks, emails and press releases which can be used for publicizing their e-books. These communication toolkits can be customized by putting your library logo, address etc.

Examples:http://www.proquestk12.com/productinfo/marketingkits/ELKIT.shtml (Accessed on 25.1.2009)

http://www.oclc.org/netlibrary/marketingkit/ads.htm (Accessed on 25.1.2009)

http://library.netlibrary.com/MarketingKits.aspx (Accessed on 25.1.2009)

Inflibnet Centre, Ahmedabad has designed good posters which are provided free to all participating institutions. Besides, they can be downloaded from :http://www.inflibnet.ac.in/downloads/ (Accessed 26.1.2009)

These communication tools are excellent for awareness creation. Many vendors and publishers might like to sponsor these materials.

10.5 Publicize in the physical library. For instance, put posters about online journals in the journals stack area. Similarly, display information about e-books in physical stack area. Amidst bookstacks of Science, one can display major online databases in the area of Science. Similarly, in case the library subscribes to online archives of newspapers, proper signs may be put up in the newspapers reading hall of the library.

10.6 Book dummies in the physical library. In case both printed and e-reference book is available, put a dummy book adjacent to the physical book This will catch user's eyes. The publishers of the online **Kompass** provide a 'big black box' to all subscribing libraries (SHEPHERD, 2006). The box mimics the well known printed **Kompass Directory** and it invites users to use the online **Kompass**.

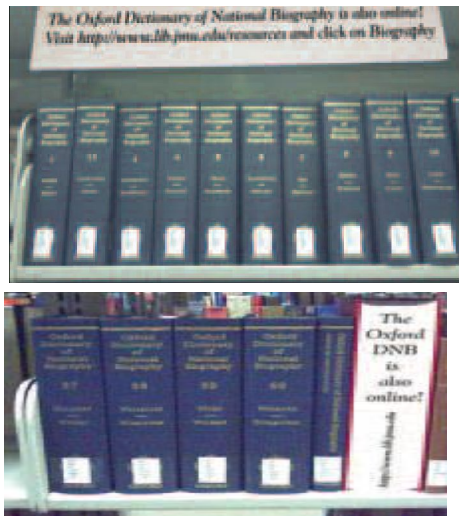

Figure. 2 Signages and book dummies in the physical reference section

10.7 Library newsletters (printed or electronic) can be used for providing general messages about library services, such as new databases added, training programs, new facilities etc. Also information about databases may be provided on the library newsletters. However, it has to be noted that the newsletters are only passive means of promotion, similar to printed brochures which are waiting to be picked up.

10.8 Various in- house magazines are brought out by student bodies, academic associations etc. Write ups on subject specific online resources will attract the students and researchers.

10.9 Research reports culled out from the online databases may be distributed to key academic staff. This provides good publicity for the online resources. Similarly key reports may be mailed to senior academics dicreetly.

10.10 Encourage users to review databases. Such participation will encourage users who in due course, will become 'Library Ambassadors'.

11. Face to Face Interaction

Face to face interactions in the form of training programs, personal visits, launch events, user meets, library stalls etc still make a good impact in spite of large number of other communication channels to reach people.

Study by Elsevier (DEWHURST, 2008) has found that the impact is always noticed more if there is a physical interaction between the user and the information marketing people (compared to communication through brochures, email or web etc). Realizing this, Elsevier has packaged the marketing strategy with On Site Awareness Programs, Student Ambassador Program and User Training with local language trainers. Elsevier runs a very interesting program named Student Ambassador Program under

which they train a few students in using their e-resources. These students in turn, train other students (ELSEVIER, 2005).

Importance of training programs has been confirmed by a study by Punjab University (DHINGRA and MAHAJAN, 2007) wherein 48% of respondents mentioned that lack of training was an impediment for the effective use of e-resources.

Certain face to face interaction methods are given below

11.1 Visits to departments. Visits to departments and laboratories are still needed in order to get noticed.

11.2 Subject specific training programs : These will be welcomed by the departments. Similarly, presentations might be offered to various Subject Associations such as Physics Association, Pharmacy Association etc.

11.3 Through events in the institution. Events in specific subjects may be used to promote e-resources in the related area. For instance, Engineers' Day may be used to promote the resource **Engineering Village** database. Therefore we need to have a good overview of what is happening around in the campus.

11.4 User Meets. Regular user meets or Open Houses may be used to publicize online resources.

11.5 Competitions : Interesting competitions may be organized involving intensive use of online resources . Vendors might be too happy to sponsor these competitions.

11.6 Launches. Launch events for specific e-resource may be organized and it will attract good publicity

11.7 Library stalls and roadshows . Library stalls and roadshows in Institute events will create awareness for various e-resources available in the library

11.8 Training sessions, Workshops relating to specific resource be run. Eg Capitaline Plus. Similarly workshops relating to resources of particular subject.eg Use of Physics Databases will be welcomed by the concerned department.

11.9 Marketing of the databases by vendors. Many of the vendors offer training in order to promote their databases. Some databases such as **Chemical Abstracts** need intensive instruction by the trainers and vendor's help has to be availed in order to exploit all the features of the database.

12. Promotion through the web/Intranet

12.1 E-mails – global. Emails to all library users indicating new subscriptions, launch events, training programs will promote awareness. Emails are very proactive. Emails have to be short, specific news items, which could be read quickly. Our users are overwhelmed with information and therefore, they are likely to ignore long emails. The periodicity could be preferably weekly or bi-weekly. More frequent ones are likely to be ignored by the user. Emails be sent only to the subscribers and there has to be facility for canceling the subscription.

12.2 Targeted emails. This is preferable. The message has to be tailor made. Examples include contents of new e-books added with a link to the book's website by which the user

would hopefully 'hook' into investigating more deeply through the hyperlinks provided. This service is very effective, though time consuming.

12.3 Screen messages on computer terminals. Screen savers on computer terminals may be used to give powerful messages, announcements etc.

12.4 Online Information Tutorials : Online information tutorials on how to search information, evaluating and organizing information, citation, ethical and legal issues relating to electronic information tools etc will be useful. Some database producers such as Proquest, Lexis/Nexis, OvidSP, PubMed etc bring out video tutorials which can be linked from the library site.

Example : New York Institute of Technology Library http://iris.nyit.edu/library/video.htm (Accessed 26.1.2009)

12.5 Table of contents : British Library in UK provides an electronic table of contents service named Zetoc covering 20000 e-journals and 16000 conference

proceedings. This service is made available free for members of JISC sponsored Higher Education institutions of UK. Other institutions are encouraged to subscribe to this service [8].

12.6 RSS Feeds : Using RSS Feeds, one can get e-alerts from the favorite e-journals. Applications may include : Current awareness services to keep oneself up to date, RSS Feeds of new article references, news alerts from different subject databases. Other library related uses may include RSS Feeds of new book titles based on selected keywords, and subject related library events. Many e-resources provide RSS Feeds. Examples include IEEExplore, Lexis/Nexis, Proquest, Nature, Proceedings of New York Academy of Sciences, American Chemical Society journals etc.

12.7 Wikis : Wiki is a collection of web pages which enables users to modify the content. Wikis contribute to group collaboration on the internet. Wikis can be useful to share documents. University of Huddersfield Library, UK has prepared a Wiki document providing information on the various electronic resources available in the library with ample hyperlinks.

http://library.hud.ac.uk/wiki/Main_Page (Accessed 25.1.2009)

12.8 Blogs : Blog (stands for Weblog) is a website that contains brief entries arranged in reverse chronological order. A blog can be created by one author or collaboratively by a community of authors. Some blogs encourage interactivity between writer and audience by allowing readers to post comments and questions about the entries. These blogs can be on general topics or they can be subject specific. Libraries can use blogs in order to announce new e-resources, provide subject guides, announce library events, e-book reviews, etc. Blogs serve handy for students to chat with librarians and for librarians to notify about library products and services.

Example : Georgia State University Library

http://homer.gsu.edu/blogs/library/ (Accessed on 25.1.2009)

Indira Gandhi National Open University http://libraryservicesignou.blogspot.com/ (Accessed on 25.1.2009)

12.9 Facebook : **Facebook** is a free access social networking site. Users can join the network to interact with other people. North Warwickshire and Hinckley College uses the **Facebook** for promoting the library services

http://www.facebook.com/pages/North-Warwickshire-Hinckley-College-Library/46001030909 (Accessed 25.1.2009)

13. Measure the Effectiveness

Impact of the promotional strategies needs to be measured regularly. Some of the tools for measuring the effectiveness are :

13.1 Usage statistics : Most of the e-resource publishers or aggregators provide usage statistics and it will be available on the site itself. User ID and Passwords are issued by the resource provided. In case the site does not routinely provide the statistics, the publishers would send the usage statistics on demand.

13.2 Surveys : Surveys carried out manually or online in order to elicit user views regarding a particular resource is useful

13.3 Open House/User Meets : User Meets and Open Houses can be held in order to obtain the views of the users

13.4 Feedback from the staff : Informal feedback from the staff regarding a particular promotional activity can be obtained.

14. Conclusion

While good ICT infrastructure is a prerequisite for the effective use of e-resources, there has to be a well organized plan for the promotion of use. Various methods need to be explored in order to make the e-resources visible. Traditional methods such as launch events, personal visits and training workshops need to be continued. Printed brochures, posters, newsletters do create awareness and provide the much needed publicity. E-mails and alert RSS alerts bring the information for the personal attention of the user. Newer methods by using Web 2.0 which include Blogs, Facebook, Wiki are interactive and they make the visits to library site interesting. Finally, the impact of promotional activities need to be measured regularly by examining usage statistics, surveys and conducting user meets.

15. Notes

1. Source : Scholarly Communication available at : http://www.library.uiuc.edu/blog/scholcomm/archives/publishing_trade/ (Accessed on 21.1.2009)
2. Quoted from CASTALDO, Jennifer C. Marketing electronic resources from the academic library homepage. A Master's Paper for M.S.in L.S. degree. 2008.
3. Average derived from e-book vendors of Springer and CRC publishers in India.
4. Source : Elsevier Journal Pricelist for 2009 available at : http://www.elsevier.com/framework_products/Wcat/18nov08 pricelist2009USD.xls (Accessed on 26.1.2009)
5. Prices obtained from INDEST consortium
6. Quoted from WILLIAMS, Lessley. Making 'E' visible. Library Journal June 15 2006 Available at : http://www.libraryjournal.com/article/CA6341888.html (Accessed on 14.1.2009)

7. Quoted from MOGHADDAM, Golnessa Galyani and TALAWAR, V G. Use of scholarly electronic journals at the Indian Institute of Science : a case study in India. Interlending and Document Supply. 2008, 36(1), 15-29.
8. Source : http://zetoc.mimas.ac.uk/ (Accessed on 19.1.2009)

References

1. **Bhat, Ishwara.** Designing efficient home pages for special libraries. In Shaping the future of special libraries, ed by S M Dhawan etal. New Delhi, Ane Books, 208, p 420 – 435.
2. **Dewhurst, Charlotte.** How marketing can help increase the value of e-resource investments : five key findings. Library Connect Newsletter. 2008, 6(1), pp. 1.
3. **Dhingra, Navjyoti and Mahajan, Preeti.** Use of electronic journals : A case study of Panjab University Library. In Proceedings of International CALIBER 2007, Ahmedabad, Inflibnet, p. 744 – 755.
4. **Elsevier.** How libraries are training users on e-resources : Best practices. Library Connect. 2005, 6(1), p. 8.
5. **Fagan, Jody Condit**. Marketing the virtual library. Computers in libraries. 2009, 29(1), pp. 49.
6. **Golwal, Madan D, Sonwane, Shashank and Vaishnav, A A.** Use analysis of electronic journals. In. Digital Media and Library Information Services, Kolkata, IASLIC, 2007,p. 663 – 669.
7. **Gowda, Vasappa and Shivalingaiah, D.** Training needs of researchers in the changing information environment : a case study of university libraries in Karnataka.
8. In. Digital Media and Library Information Services, Kolkata, IASLIC, 2007,p. 398 – 403.
9. **Labhasetwar, Milind K.** Use of electronic journals by the faculty members of JDIET Yavatmal. In. Digital Media and Library Information Services, Kolkata, IASLIC, 2007, p. 375 – 377.
10. **Leahy, Phil**. Athens access management system (Available at : http://72.14.235.132/search?q=cache e:azi96BbBYKUJ:www.athensams.net/~/media/athens/ppt/britishcouncil_march03%2520ppt.ashx+Athens+access+management+system&hl=en&ct=clnk&cd=5) (Accessed on 22.1.2009)
11. **Moghaddam, Golnessa Galyani and Talawar, V G.** Use of scholarly electronic journals at the Indian Institute of Science : a case study in India. Interlending and Document Supply. 2008, 36(1), p.15-29.
12. **Nisha, Faizal and Naushad Ali,** P M. A comparative account of the use of paeriodicals in Indian Institute of Technology, Delhi and Indian Institute of Technology, Kanpur with special reference to electronic journals. . In. Digital Media and Library Information Services, Kolkata, IASLIC, 2007, p. 391 – 397.
13. **Shepherd, Nancy**. Putting it on the shelf. Gazette. 28 July – 10 August 2006, Available at : www.media.xrefer.com/x/about/whitepapers/xrefer-rtlo.pdf (Accessed on 26.1.2009)
14. **Williams, Lesley.** Making 'E' visible. Library Journal, 2006, 131(11), p. 40-43.
15. **Wilson, Paula A.** Take it to street. Netconnect, July 2004, p. 12-15

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