

E-Resources for Research Scholars in Higher Education with Special Reference to Pondicherry University Library

V.R. Rajan

*MA. M.L.I.S, P.G.D.C. M.Phil., Research Scholar (Ph.D)
Assistant Librarian (SG)
Ananda Rangapillai Library, Pondicherry University, India
E-mail: rajan_arthi@yahoo.com*

Abstract

E-resources play a important and essential boon for research scholar in the higher education. particularly E-Journals are online Journals and explains its characteristics, its History, various types of E-journals and detailed steps involved E-journals on the web and benefits of E-journals and finally various e-resources online subscribed by pondicherry library and the benefits gained to the user community and also user statistics reveals the increase the usage of E_resources and created new awareness for the usage of E-Journals in the minds of the user communities.

Introduction

Knowledge is expanding at lightening speed. Students need to learn more, better and faster. Teachers should use innovative methods for teaching. Technology plays a crucial role in all the sphere of library activities today. The challenges posed by the advances in the field of information and communication technology, with the exponential growth in the size of storage, a phenomenal increase in the processing speed, decreasing cost of hardware and user friendly software, the technology provides ample of scope for new services and products. Thus E-Journals play a vital role in the changing scenario of libraries and information others. In 2004, Librarian Alireza Noruzi recommended applying Ranganathan's Five Laws to the Web in his paper "Application of Ranganathan's Laws to the Web"

1. Web resources are for use.
2. Every User his or her web resources.
3. Every web resource its user.

4. Save the time of the User.
5. The web is a growing organism.

Type of e-resources

1. Online e-resources, which may include:
 - E-Journals (Full text & Bibliographic)
 - E- Books
 - Online Databases
 - Websites
2. Other electronic resources may include:
 - CD Rom –Diskettes
 - Other portable computer portable databases .

What is E-Journals?

Definition:

Electronic Journals may be defined broadly as any serial publications viz Journal, magazine, newsletter in digital format and made available on CD-ROM, Online systems and in the Internet has become primary medium for e-journals today. Based on the level of content, e-journal can be classified as scholarly research Popular (general public) and Industry or trade Journals.

Lancaster(1995) suggests that the Electronic Journals is created for the Electronic medium and is available only in this medium.

Characteristics of E-Journals

- Issue include graphics, multimedia or links to other internet resources.
- File Structure is hierarchical and uniform.
- E-Journals include personalized service such as e-mail alerts.
- E-Journals is accessible on web & online archives
- E-Journals issues and articles can be used by the user online and Print copies.

History of E-Journals

E-Publishing is two decades old. The American Chemical Society was the first professional body to publish their journals in electronic form in 1983. The American Chemical Society, the Institute of Electrical and Electronics Engineers and the Institute of Engineers offer their prestigious journals in electronic form. The Online Computer Library Centre provides their Journals only through electronic form. The Electronic Journals Online service provides peer reviewed journals online, free of cost. Viz World Scientific , Singapore.

Individuals, Universities and research centers can access e-journals through net on the basis of payment and on agreement regarding the copyright. Viz www.sciencedirect.com

Types of E-Journals

Free Journals

Access to the Journal is not dependant on a subscription membership in an organization. Viz. [www. Dlib.org](http://www.Dlib.org)

Subscription based Journals : Require Payment

a. Free online against Print Journals

Viz. American Journal of Physiology. www.ajpcon.physiology.org

Current year access only. Current twelve rolling period. Achieve access.

b. Online only Journals

It indicates online Journals only and there no print counterparts.

Viz. www.jop.org/Journals/it JTI

c. Pay-Peer-view journals

Any single article can be viewed /downloaded by paying additional amount.

Viz www.ddj.com/store/

d. Virtual journals

Journals dealing on specific topics are grouped and access to them is provided.

Viz. www.press.unich.edu/jep/

Steps involved in Accessing E-Journals on the Web

- Connect the Journal website using its site address (URL).
- Select an issue, browse the table of contents.
- Authentication (user id,password/validation).
- Online registration for initiating online access by providing the customer_id
- Range of IP numbers need to be mentioned in the online incense agreement form. .
- Selection of an article for viewing abstract /full text. They may be an text or have format. PDF
- Search Title of Content /Bibliographic record and link to full text article Viz. ISI's Web of Science.
- Many free journals also require registration for online access.
- Access requirements: Good ban width, laser printing for taking print copies of select articles in pdf or html formats, access points depend on the size of the organization and the number of users.

Major publishers of scholarly E-Journals

Many of the major scholarly societies/publishers have made their journals available online.

- Viz. American Physical Society : WWW.aos.org
- American Chemical Society : WWW.acs.org
- American Medical Association : WWW.amaassn.org

- Elsevier Science : WWW.elsevier.com
- Cambridge University Press : WWW.cup.org

Benefits of E-Journals

- The Subscription allows remote access.
- More than one user at a time can use E-journals simultaneously.
- Multidimensional features of E-journals encourage the users to use them round the clock.
- E-journals are flexible and do not require physical processing, storage space and even environmental valuable.
- Access to archival issues is available.
- Dual Publishing is another added advantage.

E-Journals Boon for Research Scholar in Pondicherry University Library

Pondicherry University is a Central University established by an Act of Parliament by the GOVERNMENT of India in October 1985 and recognized by the UGC under Section 2(i) and 12(b) of the UGC Act, 1956. It is affiliating University with a jurisdiction spread over the Union Territories of Pondicherry, Lakshwadeep and Andaman and Nicobar Islands. Moreover. The University has nine centres under thirteen schools, thirty four departments, a Directorate of Distance Education, a Community College, and an Academic Staff College. It is first university in the country to introduce choice based credit system(CBCS) with semester scheme.

University Central Library

The University Library was established on 11th September on 1986. It moved to an independent building in June 1990 with a carpet area of 31,204 sq.metres. At present, the Library has in its stock about 1,58,920 Books, 354 Print Journals viz.122 (National) and 232 (International), 8994 Back Volumes, Theses 4456 viz. Ph.d: 593 and M.Phil:3863 and U.N. Depositories etc. covering a wide variety of subjects to facilitate current reading. We have E-resources facilities available and it has access to around 6345 journals in full text and 18,020 Journals content pages with abstract wherever available. The Library is fully automated.with the introduction LIBSYS-4 (Rel 5.7.2)Software Package in the year 1997. The University Portal is created for easy access to Electronic information resources for the staff, scholars and student of Pondicherry University. A huge money is invested with library Electronic Journals and E-resources which are made available to facilitate world class teaching and research in Pondicherry University. The library is fully equipped with an online public access catalogue for looking into the collections under the intranet and also through website. A good internet browsing hall is available for all on-campus students to access internet resources. A separate web link is available for library users with all details of online resources accessible to authorized users.

UGC Infonet E-Journals

The University Grants Commission has initiated a programme to provide electronic access over the internet to scholarly in all areas of learning to the University sectors in

India. The Programme is wholly funded by the UGC and administered and monitored by INFLIBNET. All Universities which come under UGC's purview will be members of the programme and it will be gradually be extend to college as well. Out of 305 Universities, 50 Universities including Pondicherry University have been included in the first phase of the UGC Infonet E-Journals programme.

Pondicherry University has been selected as one among twenty universities whose contents would be included in the JCCC (J-Gate Custom Content for Consortia) for Data interchange/resource sharing. through INFLIBNET.

UGC-INFONET Digital Library Consortium

The List of e-resources provided for 2010 are as follows

Sl.No	Name of E-Resource	URL
1	American Chemical Society	http://www.pubs.acs.org/
2	American Institute of Physics	http://www.aip.org/
3	American Physical Society	http://www.aps.org/
4	Annual Reviews	http://arjournals.annualreviews.org/
5	Blackwell Publishing	http://www.blackwell-synergy.com/
6	Cambridge University Press	http://journals.cambridge.org/
7	Elsevier Science (Cell Press)	http://www.sciencedirect.com/
8	Institute of Physics Publishing	http://www.iop.org/EJ
9	Institute for Studies in Industrial Development (ISID)	http://isid.org.in/
10	JCCC	http://www.jccc-ugcinfonet.in/
11	JSTOR	http://www.jstor.org/
12	MathSciNet	http://www.ams.org/mathscinet/
13	Nature	http://www.nature.com/
14	Oxford University Press	http://www.oxfordjournals.org/
15	Portland Press	http://www.portlandpress.com/pp/default.htm
16	Project Euclid	http://projecteuclid.org/
17	Project Muse	http://muse.jhu.edu/journals
18	Royal Society of Chemistry	http://www.rsc.org/
19	SciFinder Scholar	http://www.cas.org/products/sfacad/index.html
20	Society for Industrial and Applied Mathematics (SIAM)	http://epubs.siam.org/
21	Springer Link	http://www.springerlink.com/
22	Taylor & Francis	http://journalsonline.tandf.co.uk/
23	Economic and political Weekly	http:// www. epw.in from 1966 onwards.

CD ROM Journals Database Service

CD-ROM Database Search Service

The University Library has acquired two numbers of CD-MIRROR server. Both the Abstract/Index CD-ROMs and Full Text CD-ROMs of the Journal Databases are mirrored in the CD-MIRROR servers. Around 2000 journals from various subjects are covered by the CD-ROM databases.

The users can browse the databases through Keywords, Publication, Author, ISSN, etc. This facility can be availed through the campus-wide Intranet also. The following CD-ROM journals databases are available with the Library.

CD-ROM Database	Period
General Periodicals on Disc (GPO)	1988-1997, 2000-2002
Business Periodicals on Disc (BPO)	1991-1997, 2000-2002
Social Science Index	1994-1997, 2000-2002
INSPEC – Physics	1996-1997, 2000-2002
Life Science Collections	1992-1996
Energy and Environmental	1984-1996
Ulrich+	1996
Biological Abstracts	1995-1997

Elsevier Science Direct Online Journals on Payment basis

Thanks to our Ex Vice chancellor Dr.A.K. Bhatnager initiative on the introduction of the science direct in the year 2004, Seven major disciplines have been subscribed. online journals including back files of the same disciplines. namely Computer Science, Mathematics, Physics and Astronomy, Materials Science, Biochemistry, Genetics and Molecular Biology, chemistry and Earth Sciences to 763 current and 623 archival journals provided by Elsevier Science Direct and can be accessed via intranet.

EBSCO Publishing Online E-Journals on Payment basis

EBSCO Publishing Ltd.,- an online publishing company of U.S.A. provides access to the electronic journals databases viz. “Business Sources Premiere” and “Academic Search Premier” and the total number of 4542 full text and 2300 abstracts supplied by the EBSCO. It is exclusively belongs to Humanities and Social Sciences.

SCOPUS (Payment) – As the largest abstract and citation database of peer review research literature and quality web sources. Abstracts from 16000 + Journals covering the abstract of the discipline from Health sciences (6800 Titles), Life Sciences(4300 titles), Physical sciences(7200 titles) and Social sciences & Humanities (5300 titles)

Annual Reviews Archives (Perpetual Access/Backfiles)

Annual Reviews (Electronic Back Volumes) Archives covering a comprehensive collection of Annual Reviews back Volumes with content spanning from Biomedical Sciences, Physical Sciences and Social Sciences dating back to the very first volume of Annual Reviews in 1932 and upto 2002 on perpetual access

A Brief detail on E-resources available in Pondicherry University Library E-Journals (Online) Access Availability

Sl. No	Publisher/Aggregator/ Consortium	Current E-Journals			Back Files E- Journals Full Text	National Site License (Encyclopaedia)
		Full Text	Abstract	Databases		
	Annual Reviews Archives	-	-	-	68	-
	EBSCO Publishing Ltd.	4,542	2,300	-	-	-
	Elsevier Science Direct	763	-	-	525	-
	Scopus		16,000			
	UGC Infonet E-Journals Consortium	6,053	10,000	8	-	1
	Total	11,358	28,300	8	593	1

E-Resources and access has been activated:

E-Books

- | | | | |
|---|-----------------------------|-------------|---|
| 1 | Blackwell Publishers | 343 titles | www. Blackwellreference.com |
| 2 | Cambridge Books collections | 307 titles | http://pondiuni.cambridge.patron.eb20.com |
| 3 | CRE Netbase E-Books | 933 Titles | www. http://pondicherr.crenetbase.com |
| 4 | Credo reference | 421 Titles | http://credoreference.com |
| 5 | Springer Protocols | 4375 Titles | http://www.springerprotocols.com . |

User Education On E- Journals

Pondicherry Library has been subscribing E-Resources namely E-Books, E-Journals - Science Direct (online) Journals including Subject Back files and EBSCO E-Journals (online) for Humanities on Payment Basis , CD Rom Databases(Offline) and UGC Infonet E-Journals on free of cost from 2004 onwards. In the beginning, the cost of payment online subscriptions have crossed more than 75 lakhs. These E-Resurces can be seen not only from University Library but also to all the Schools/Depts/Centre through campus Intranet . But however, we have received poor response from the user Statistics provided by M/s Elsevier India(P) Ltd., New Delhi. Now the cost of E-resources has crossed more than one crore in the library.

Students should be trained on how to get access to these electronic sources b) search effectively in order to find what they are looking for and c) retrieve the information they need in the education session students could access an electronic journal and learn about document delivery services, the FTP and the printing facilities of the library. They can also access an electronic book database in order to get an idea of what it offers and how it works.

There are methods of creating awareness and training and teaching the users need namely Internet, Orientation Programme methods, Printed Guides, one to one instruction Lectures and courses and online instruction. Library staff is responsible both for management of electronic sources as well as for the support and education of the students. Experience. Librarian must have through knowledge and experience. The continuing education with trainings, conferences and new readings is essential for

the academic librarian to stay “alive” and useful in the world of information and library services.

Evaluation should be done to the instruction that is provided to the students on how to use the electronic information sources in order to indicate any possible weaknesses. The suggestion of the students should be written down and be considered as very important for the library’s future decision making on electronic sources, about the time they spend the time as well as about the effectiveness of the education and instruction given to the students can be collected the following methods namely opinion leader interview, Electronic statistical data and globally the observation and experience of the library staff that works at the information desk should be considered as very important for such a research..

Analysis

As per the Dr.S.R.Raganathan Five Laws of Library Science, user orientation has been taken as a measure for awareness of the orientation Programme. and we have organized Orientation Programme from 03.09.2007 to 11.09.2007. Consequently, more number of student from all the Department were present and enriched the E-journal techniques taught by all the Library Professionals. Our resource persons are one Deputy Librarian, Seven Assistant Librarians and one Information Scientist have explained in detail on how to access the E-Resources on the computer and nicely demonstrated each and every branch of E-Journals and the feedback received from them was highly outstanding and excellent. In this connection, The user statistics after Orientation Programme were tremendous which are given namely Number of user prior to orientation Programme were 4699 and after the conduct of the orientation Programme were enhanced to 9311 which clearly shows their lot of interest for E-Resources because of the awareness of E-resources created by our University Library only

Similarly, We conducted user awareness Programme exclusively on access to E-Resources under UGC-infonet Digital Library Consortium on 25.09.2008 and 26.09.2008 for the benefit of the Research Scholars, Students, Librarian of Affiliated Institutions/Library Staff. There have been tremendous response from the user communities viz 253(Social Sciences and Humanities) + 199 (Science Departments):= 452 (25/09/2009 & 26/09/2009 respectively)

Conclusion and Recommendation.

Increasing access to information has led to a shift in the traditional role of both the library and librarian. For effective dissemination of information online journals make their appearance on the net much before the print copies reach the subscribers. Therefore E-Journals is such a source, which reaches the user in right time at any place with all information.

On the basis of the above findings, there are few methods to take effective steps for providing electronic information sources to the students. Viz:

1. Find the most appropriate electronic information sources for the educational

- needs of the students according to university curriculum.
2. Provide the necessary equipment and access to electronic sources for all the Research Scholars of the University.
 3. Provide to students the most appropriate educational method (or Orientation Programme) in order to educate them effectively.
 4. Evaluate the electronic sources and the education providing to students.
 5. Electronic information sources can be a powerful tool for all the members of the academic community if they learn to use it effectively. Electronic sources such as OPAC, online databases, electronic documents and Internet are essential to every student research.
 6. The efforts of UGC-INFONET and INDEST-AICTE Consortium are appreciable and will definitely strength higher education system in India free or highly subsidized access to scholarly e-resources will help educational institutions in fulfill their mission into reality.

References

- [1] White (A.C):Using heterogeneous components to construct on library Portals: The Electronic Library: IASLIC Bulletin:Vol.51:No.4:December, 2006.
- [2] Bailey,Jr.Charles W.(2005)Scholarly Electronic Publishng Bibliography, University of Houston Libraries(US).
- [3] Brophy,P (1993) “Networking in British academic libraries”:British Journal of Academic Librarianship,8.1,(1993):50-51.
- [4] Brophy,P.(1993)“Networking in British academic libraries”:British Journal of Academic Librarianship,8.1,(1993):54.
- [5] Chandra,Harish (2002) E-Resources Nabagement with specific reference to E-reference sources:Initiatives and issues.: Proceedings 21st Annual Convention and Conference of Society for Information Science (SIS),pp.180-190,Roorkee,(India).
- [6] Charles L.Mcdaniel:Virtual Management:Trials and Tribulations.A.
- [7] Laguardia,Chely et al.Teaching the new Library: A How to do it Manual:New York,Neal-Schuman,1996,P.20.
- [8] Roberta,Anne F. and Susan G.Blandy:Library Instruction for Librarian (2nd rev.ed.Englewood,Colorado:Libraries unlimited,1989),p.64.
- [9] Sridhar,M.S.(2007) Information Management in Digital Environment:A Librarian’s Perspectives:DESIDOC Buletin of Information Technology 27(4):pp.45-50.
- [10] Tedd Lucy A: The Electronic Library 3rd ed. Aberystwyth”Department of Information and Library Studies,University of Wales,1999.p.1.
- [11] Tom.J(2004) Informatics and the organization of Education School of information, Faculty of Mathematics and informatics,University of Nijmegen.
- [12] Caliber-99: Academic Libraries in Internet era ed by PSG Kumar and CP Vashishth: 1999, P269-281.
- [13] Twenty First Annual Report: Pondicherry University:2006-07, P128-136.

- [14] Inlibnet Regional Training Programme for Library Automation : Course Material: 2002, P3341.
- [15] Information Sources and Searching on the World Web by G.G. Choudhry and S.Choudhry:2001,P.106-120.
- [16] Proceeding of the National Conference on Initiatives in Libraries and Information Centres in the Digital Era by SALIS, 2006.
- [17] Pondicherry University Profile 2010.
- [18] [html//Allpyah.com/psychology](http://Allpyah.com/psychology) 101.
- [19] <http://scholar.lib.vt.edu>
- [20] www.aicte.ernet.in
- [21] www.pondiuni.edu.in