

Use of Scholarly Resources among Research Scholars in Pondicherry University

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In this short article we examine the use of electronic journals by research scholar and consider whether library services need any innovation. Research scholars are the intellectual asset of the University and their production of new knowledge through the practices of research and scholarship lies at the heart of the University's mission. Yet, without effective and ongoing dissemination of knowledge, the efforts of researchers and scholars are wasted. Dissemination is thus a core responsibility of the University.

Keywords: UGC-Infonet, Pondicherry University, Research Scholar, E-resources, Consortium

1. Introduction

In this present 'Digital ghetto' electronic journals are a part and partial of the academic library's offerings. As demands for electronic resources surge up, librarians are faced with a new set of decisions related to acquisitions and services. According to G,Vasappa and D. Shivalingaiah (2009) research is an intellectual activity of gathering libraries need to understand clients' information seeking and information needs so as to solve a problem, which in turn demands behavior and service more keenly than before. Libraries must retain both print and electronic copies? Is the price of the electronic copy justified by its use? Do usage patterns show that some journals will be as heavily used—or more so—in 20 years as when they are published? Answers to these and other questions require statistics on usage, and in the electronic realm, such statistics must come from the publishers.

Unfortunately, Luther, Judy (2008) observes that the task of collecting the appropriate usage data from the publishers seems to be the challenge of an hour for the librarians. The publishers on the other hand are unwilling to provide usage data, even though some complain that implementing a data collection function is costly and others fear that librarians will cancel subscriptions if they learn that usage is low. A more basic problem is that there is no agreement on how to produce data that can be compared and analyzed. It has been exceedingly difficult for librarians to know what to ask for when something as basic as the term "use" can have many meanings.

In recent year the idea for resource sharing came to play in Indian scenario and a consortium therefore was the medium through which University was able to access information through a feasible manner.

But despite the initiation of the UGC- Infonet consortia consideration has to be made in understanding the value and cost-benefit and that there is always a room for improvement in the business model. Effective usage is required so as to achieve the consortia aims and objective initiated by UGC - INFONET at Pondicherry University, located in Puducherry (Pondicherry), India.

2. Aim and Objective of the Study

The objective of the present study is to find out the:

1. The effectiveness of usage of e-resources among the research scholars
2. The degree of preference for the electronic and printed formats
3. The advantages and disadvantages that are associated with above formats
4. The characteristics of use: the reasons for consulting the journals and the place of access.
5. Tools used for navigation to gather required information

Infrastructure

Pondicherry University campus is provided with wide computer network - Intranet links to all buildings through Optic Fibre Cable (OFC, high-speed CISCO switches and router. The Cultural-cum-Convention Centre, Guest House, School of Performing Arts, Department of Physical Education and Academic Staff College are connected to the intranet by wireless mode. About 1000 workstations across the University are connected to this network. Internet access is being provided with a speed from 8Mbps to 32Mbps.

3. Pondicherry University Central Library Web Portal (Ananda Rangapillai library)

The term "portal" describes a variety of web based interfaces, everything from a relatively static homepage with general product and contact information to a dynamic one-stop homepage where users can customize the content to meet their needs. Pondicherry University Library (Ananda Rangapillai Library) web portal is in an infant stage with links and hyperlinks to enable both the students and the teacher in accessing electronic resources that are available in the central library. The University web portal presents information from diverse sources in a unified way. Apart from the standard search engine feature, web portals offer other services like photo archive and video to serve the student and teacher in their information needs. The Average hits count per day are in terms of thousand showing a positive sign of high utilization and users visit to the library portal to access resources such as electronic databases viz.



1. CREDO (Subscription)
2. SciFinder (through Infonet)
3. MatSciNet(through Infonet)
4. Scopus (Subscription)
5. ProQuest (Subscription)
6. EBSCO (Subscription)
7. Nature (Trial)
8. Web of Science

Figure: 1 Web Portal of Ananda Rangapillai Library (Pondicherry University)

3.1 Usage of UGC-Infonet

Since the establishment of library consortia and the growth of big deals/major contracts, several studies have appeared in recent years in which the usage of e-journals was researched with respect to their cost-effectiveness, user diversity according to research fields, and other relevant factors (Karasözen, B 2008).

The usages of Infonet resources in Pondicherry University are not consistent in terms of months and publishers. The total download recorded in the year 2007 in Pondicherry University is 93,125 and these drastically went up to 1,36,910 in 2008 and 74,240 in 2009(Jan-July). These statistics seems to be greatly influenced by the kind of infrastructure available in the respective universities. The usage indicates a big leap and improvement in 2008 and 2009. The usage in Sciences seems to be the dominant factor from the statistical point of view as shown in the Fig-1. Besides science oriented publisher like American Chemical Society, JSTOR being the archiving academic journals prove to be the most sought after with a total download of 34,901 in 2008 and 29,210 in 2009 (Jan-Jul). Studies by Carol Tenopir and Donald W. King (2002) indicate that scientists currently read approximately 130 articles per year, with medical researchers reading the most articles and engineers reading the least. Based on their surveys, Chemists read an average of 276 articles per year, Physicists an average of 204 articles per year, and Engineer an average of 72. With the statement taken into consideration, Pondicherry proves to be showing similar result with science fraternity and research scholar in sciences more aware and high users of electronic resources.

The variations and the increase in utilization of resources may be attributed to different factors, some of these factors being as follows

- 1) Increase in number of departments and students enrollment.
- 2) Increase in number of research scholars.
- 3) Increase in level of awareness amongst the users.
- 4) Increased facilities for the user.
- 5) Improvement of internet speed and infrastructure.
- 6) Academic calendar of the University

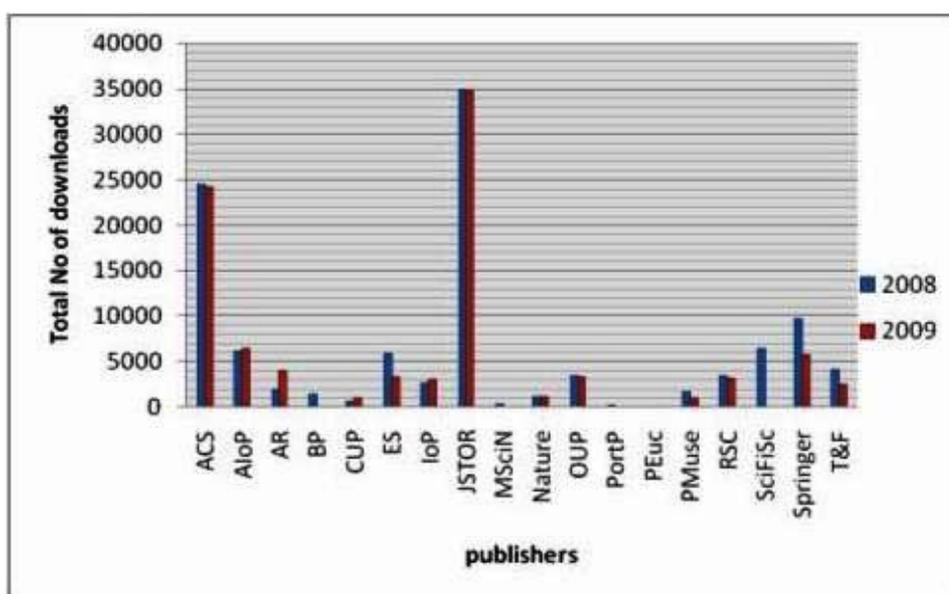


Figure: 2 usage of UGC-Infonet

Some of the publishers' usage data are unavailable and therefore, there is always a room for further research and analysis. Information providers are also encouraged to present data as graphs and charts so as to enable the users of the consortium to have awareness on the usage thereby making the consortium more effective.

3.2 Research Output of Pondicherry University

In recent years India has recorded a noticeable or commendable growth in its annual output of scientific publications. According to Thomson Reuters report there is an increase in author address in India. From an essentially flat line between 1998 and 2000, the quantity of publication outputs begins rising steadily, increasing from roughly 16,500 papers in 1998 to nearly 30,000 in 2007. Which according

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to global research report conducted by Adams, Jonathan (2009) of Thomson Reuter states that in the last five-year period, India produced roughly 126,000 papers, constituting 2.75% of the world's papers published in journals indexed by Thomson Reuters.

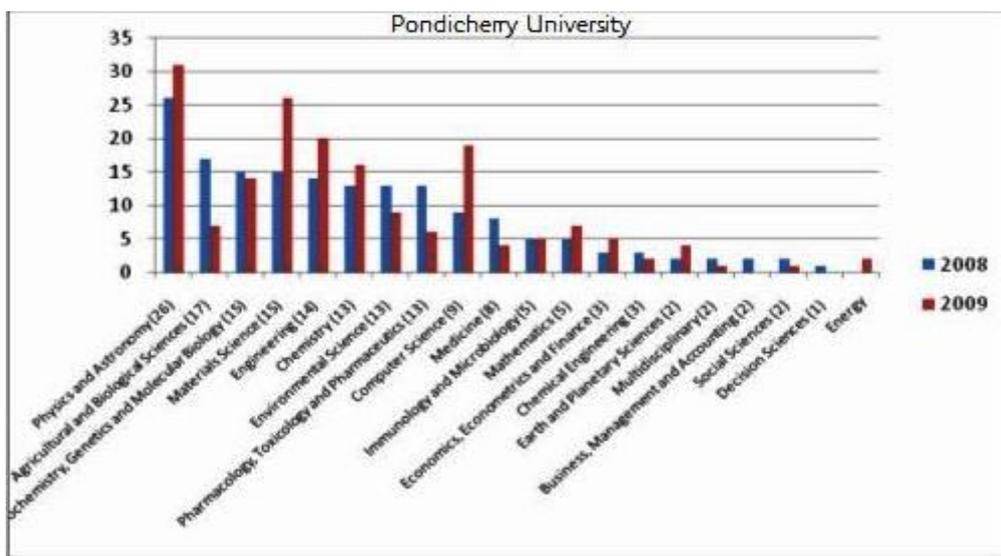


Figure: 3 Research output of Pondicherry University (Source: Scopus)

Figure-3 depicts the analysis of Scopus Database on research output of Pondicherry University and it is interesting to note that there is an increase of research productivity in the year 2009 dominated by the science discipline, while there is a decline in research output from the social science and humanities during the year 2009.

Table: Research output of Pondicherry University (Source: Web of Science).

Subject Area	Record Count	% of 164
Materials Science, Multidisciplinary	19	11.59%
Chemistry, Organic	14	8.54%
Physics, Condensed Matter	13	7.93%
Optics	12	7.32%
Biotechnology & Applied Microbiology	11	6.71%
Chemistry, Physical	10	6.10%
Ecology	10	6.10%
Metallurgy & Metallurgical Engineering	9	5.49%
Biochemistry & Molecular Biology	8	4.88%
Physics, Multidisciplinary	8	4.88%

The above table illustrates the readings from web of science database showing similar reading in terms of the research productivity of various disciplines. The Material Science and Multidisciplinary research output ranks first with nearly 12% share out of 164 scholarly contributions. This is a healthy sign that interdisciplinary or multidisciplinary research is taking a robust stride in academic domain which is highly insisted upon by various governing bodies such as UGC, AICTE, MCI, DCI etc.

There is a slight increase of research productivity shown in Google Scholar and Scopus for the year 2008-09, with Scopus with a total hit of 202 and Google scholar with a total hit of 2030 where, Google Scholar performs robot crawler searches content in peer-reviewed journal literature, books, dissertations, preprint repositories, academic society papers and as Harzing (2007) finds that Google scholar sometimes includes non-scholarly citations, such as student handbooks, library guides or editorial notes.

3.3 Datasets used and Methods Employed

This study presents the results of a brief survey on the use of electronic journals by the scholars in Pondicherry University. We believe that these types of studies will reinforce our efforts in knowing the usage pattern and the awareness of the UGC-infonet consortium and the advantage of using the consortia. And also the results of these kinds of studies offer a platform with stronger inputs for building effective consortium.

For this study, usage of the electronic resources by scholar of various departments pursuing active research is studied.

For this study, questionnaires are framed with the objectives to address the following problems:

1. The level of awareness on the collection of electronic journals.
2. The degree of preference of the electronic or printed format and the advantages and disadvantages that available in each format.
3. The characteristics of use: the reasons for consulting the journals and the place of access.

3.4 Findings

There is a noticeable gap in the literature about student perceptions towards electronic information, as Brittain noted, "Most user studies have looked at the situation through the eyes of the information professionals, rather than the user" (Bawden, 1990). Current measures are limited to data on the amount of activity, such as the number of downloads and the questionnaires. To base comparisons on the use of large or very popular journals sets an artificially high benchmark for other titles with fewer articles available for use. This raises the question of whether the measure of activity should be relative to another

factor, such as the price of the journal or the number of available articles, which puts the measure in a context. The librarian and the publishers are both aware that usage is one of the factors that determine the value of the journal and it is an indication for feasible use. But, at the same time it is also not to be concluded that, the popular title used by many students is worth more than a research title that is used by only a few faculty members working in a specific discipline.

The findings of this small sample population suggests that many respondents do use some electronic resources and are aware of their benefits, but the majority still like to use printed material to complement this technology.

- 96.4% of respondents agreed an awareness of access to a networked computer via University, although many stated computer availability deterred them from using the resources.
- The most popular electronic resources were the Internet. Other resources were accessed by some subject groups more than others, but this was not done by many of the sample population.
- 75.3% of respondents perceived themselves able to effectively utilise the services offered.
- Limited time and lack of effective information retrieval skills form the main barrier to using electronic resources. Conversely, faster access to information was noted as a main advantage of electronic resources.
- Restriction of sites and use of various terms and phrase limits the user in accessing the journals and other streaming videos.
- There is a strong positive correlation between universities' expenditure on e-journals and number of articles downloaded. But availability of more publisher usage would prove better understanding of the monetary benefits.
- 87.3% of respondents felt that they could acquire significant information from the Internet via Google search engine instead of other gateways.
- Most students acquired the skills necessary to exploit the electronic resources via trial and error or through guidance from other students, raising the question of the effectiveness of these skills.
- results were different dependent upon subject studied for most of the questions, suggesting two things which may effect how the respondents feel:
 - ☞ the use of technology in the degree course and
 - ☞ relevant information available electronically

4. Conclusion and Recommendations

The results of the study offer significant information on the level of awareness and use of electronic journals in academic institutions and are encouraging. However, it is also apparent that a large number of

students from the sample population are leaving University without the necessary transferable skills to cope in an information based society. Further research is necessary to show how best to encourage students to make effective use of the electronic sources that are available. Research scholars suggest the following approaches for better improvements:

- Ensure that there is a sufficient networked computer available for students, especially at peak times and alert the student with the change in internet protocols.
- Information retrieval skills training to be embedded in the curriculum, undertaken at an appropriate time and supported by academic staff. Academic staff must be aware of the services which are most beneficial to their course and their students
- Provide information skills training at all level which is appropriate to the individual needs of the student.
- Ensure every student irrespective of their discipline receives unbiased information retrieval skills training.
- Impart training on feasible usage of library resources to fresh research scholars.
- Provide fast and convenient printing facility.

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