

# Information Access and Utilization by Faculty of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) in Electronic Era

**Nirmal Singh**

*Assistant Librarian*

Guru Angad Dev Veterinary and Animal  
Sciences University  
Ludhiana (Punjab)-India  
nirmal02@yahoo.co.in

**Dhiraj kumar**

*Junior Library Assistant*

Guru Angad Dev Veterinary and Animal  
Sciences University  
Ludhiana (Punjab)-India  
dk\_malhotra@yahoo.com

## Abstract

*Information and Communication Technologies (ICTs) have transformed the format of information resources vis-à-vis ways and means of accessing information. This has abolished the constraints of space and time and has taken the information to the desktops of users. This study examines the information access and utilization by faculty of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU). Data has been collected from faculty using online questionnaire with response rate of 62%. Users' purpose, place of accessing information, preferences over print v/s online resources, problems faced in accessing information, etc. has been explored. Findings reveal that the online access to information resources has influenced the users' visit to library. Teaching departments and home are the preferred places for using the Internet.*

**Keywords:** information access, information utilization, information resources, knowledge,

GADVASU

## 1. Introduction

Information and knowledge is all empower. Like physical and fiscal capital, this has a crucial role in development of society. The nations who generate and use more information and knowledge are more developed than others. The use of Information and Communication Technologies (ICTs) has greatly influenced the information communication processes. The Internet and its applications have transformed the world in to a global village and placed information just a mouse click away. "The emergence and use of information technology is the century's most significant development affecting scholarly communication" (Egberongbe, 2011). These have brought structural changes in the functions and services of libraries and changed their

role from store houses of books to information and knowledge facilitators. While, technological advancements have facilitated access to seamless amount of information, these have also posed challenges to exploit the technology for providing state-of-the-art services to users. “Everyday new technological advances affect the way information is handled in libraries and information centers” (Krubu and Osabaru, 2011). Moreover, the users’ information needs are widening day by day. They want relevant information at their own convenience without much effort. All this makes the job of libraries and information centres a challenging task for providing right information to the right user at the right time. The user studies provide remedial measures in designing and developing need based information systems satisfying the information needs of users. “Apart from information retrieval there is virtually no other area of information science that has occasioned as much research effort and writing as user studies” (Wilson, 2006). These facilitate to know the information needs, expectations, information seeking behavior, information use and preferences of users for taking suitable measures to ensure the proper flow of information for meeting their information needs.

## **2. Need for Study**

India is a developing economy where more than 60% people live in rural areas. Agriculture has a significant share in its’ Gross Domestic Product (GDP). Animal husbandry sector has successfully provided large scale self-employment opportunities particularly to the rural people. According to National Sample Survey 16.5 million people are engaged in farming of animals and fishing, 14.9 million of which are from rural areas (Department of Animal Husbandry, Dairying and Fisheries, 2012). India has largest cattle population in the world having “about 127 million adult breedable female buffaloes and cows” (National Dairy Development Board, 2011).

Veterinary universities contribute significantly towards development of nation by promoting the livestock health and production and prevention of diseases through their teaching and extension programmes. The rapid advances in veterinary sciences require veterinarians to keep abreast of the latest developments in discipline. Therefore, to design and develop the effective library and information systems for providing updated and relevant information to veterinarians, it becomes imperative to ascertain their information needs and which sources of information do they use for

meeting up information needs. In India very little or no efforts have been made for documenting the extent of use of various sources of information by veterinarians.

### **3. Universities in India**

Education is key to the progress of a nation. Universities are the apex institutions at the helm of higher education producing human resources for development of society. India witnessed an astonishing growth in higher education institutions after independence. “The number of Universities/University-level institutions has increased 18 times from 27 in 1950 to 504 in 2009” (Department of Higher Education, 2012).

The Indian National Agricultural Research System is one of the largest Agricultural Systems of the world. It consists of 53 State Agricultural Universities (including Veterinary Sciences Universities), 4 Deemed Universities, 45 Institutions of National Importance, 17 Research Centres, 6 National Bureaux and 25 Directorates/ Project Directorates contributing to the growth and development of agricultural research and education (Indian Council of Agricultural Research).

### **4. GADVASU: An Overview**

Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) were established in 2005 by an act of the Punjab Legislature by bifurcation of the College of Veterinary Science, Punjab Agricultural University, Ludhiana. University has three constituent colleges including College of Veterinary Science, College of Dairy Science and Technology and College of Fisheries. In addition it has a School of Animal Biotechnology ([www.gadvasu.in](http://www.gadvasu.in)).

The University Library is hub of academic, research and extension activities of GADVASU. Having state-of-the-art infrastructure and facilities, it supports the goals of university through its information resources and services. The Library is fully automated and provides peaceful and encouraging environment for concentration of the users. To strengthen its collection, University Library successfully organized five book exhibitions during the short span of its establishment. The library has a collection of about 15,000 books, back volume of journals, theses and dissertations, reports, compact discs, etc. for meeting up the information needs of students and faculty. University library is member of Consortium for e-Resources in Agriculture (CeRA)

providing access to about 2900 journals in the broad spectrum of Agricultural Sciences including nearly 300 journals in the disciplines of veterinary sciences, dairy science and technology, biotechnology, fisheries and related subjects.

## **5. Objectives of the study**

Following are the objectives of this study:

1. To find the users' purpose of accessing information.
2. To explore from where do the faculty members look for information and which resources do they use to gather information.
3. To ascertain the users' preferences over print and e-resources.
4. To find the impact of ICTs over information gathering habits of faculty.
5. To find problems faced by users in accessing information and make suggestions for improving the library and information system of the institution.

## **6. Methodology**

For the purpose of this paper data was collected from faculty of GADVASU using online questionnaire, prepared after review of relevant literature. A pilot study was also conducted to streamline the questionnaire. GADVASU has 170 faculty members serving its three constituent colleges and a School of Animal Biotechnology. A link to online questionnaire was sent through e-mail to the random sample of 100 faculty members including Professors, Associate Professors and Assistant professors or equivalent. In total 62 faculty members responded to the online survey. The data has been analysed using percentage calculation and has been presented in tables and figures.

## **7. Review of Literature**

Various studies have been conducted in India and abroad to examine the access and utilization of information resources. A review of selective literature is given here.

It has been found that veterinary practitioners do not use libraries and computer information services frequently, but depend upon personal books and journals to meet their information needs (Pelzer and Leysen 1991). The study to examine utilization of e-information resources by academic staff of Makerere University Uganda brought forward that despite of being aware about e-resources provided by university library, most of the staff do not use these (Agaba et al.,

2004). Inadequacy of available facilities, slow speed of the Internet and poor publicity of e-resources were the major factors affecting utilization of e-resources. Another study has been conducted to examine the use of e-resources by medical sciences faculty at University of the West Indies. About 70% faculty responded to the email questionnaire. Nearly 97% users used e-resources (Renwick, 2005).

Findings of the web based survey of agricultural faculty in Iran revealed that computer and internet skills affected the faculty's use of electronic information resources. Research work is the major reasons for using electronic information resources (Papzan and Yaghoubi, 2008). A study has been conducted to assess the information access pattern of faculty in arts and science colleges. Results revealed that majority of the faculty visit respective libraries daily or once a week to prepare for classes and to update knowledge (Prabakaran et al., 2010). On other hand faculty of C.V. Raman College of Engineering make frequent use of the Internet for study and research work (Satpathy and Rout, 2010). About 48.5% respondents access internet from respective departments whereas only 07.90% access from Central library. E-databases and e-journals were most used e-resources. Authors suggested for regular studies on use and usability of e-resources. Similarly, availability and usage of ICTs and e-resources by livestock researchers in Tanzania has been investigated (Angello and Wema, 2010). The poor Internet connectivity and unavailability of e-resources were the major reasons for not using e-resources effectively. Authors suggested for improving the Internet services of the institution to facilitate information searching.

A review of recent literature to examine use of e-resources by academics revealed that use of e-journals has increased with time. Age and/or academic position of academics do influence the use of electronic media and journals. Author concludes that e-journals will continue to enjoy the wider acceptance among academics in future also (Adegboire, 2011). Similarly, e-mails and e-journals have been the most used electronic information resources by faculty of Agricultural university libraries (Okorie and Agboola, 2012). About 75% faculty used e-resources 'always' and 50% users indicated e-resources as time saving.

## **8. Discussion and Analysis**

### **8.1 Demographic details**

Out of the 62 respondents, 79.03% were male persons and remaining 20.97% were female faculty members. About 82.26% respondents have doctorate degrees in concerned disciplines and remaining 17.74% have masters' degrees in veterinary science, fisheries or dairy technology. Age of the respondents varied from 27 to 52 years with an average of 38.35 years and median of 36 years.

**Table 1: Academic status of faculty**

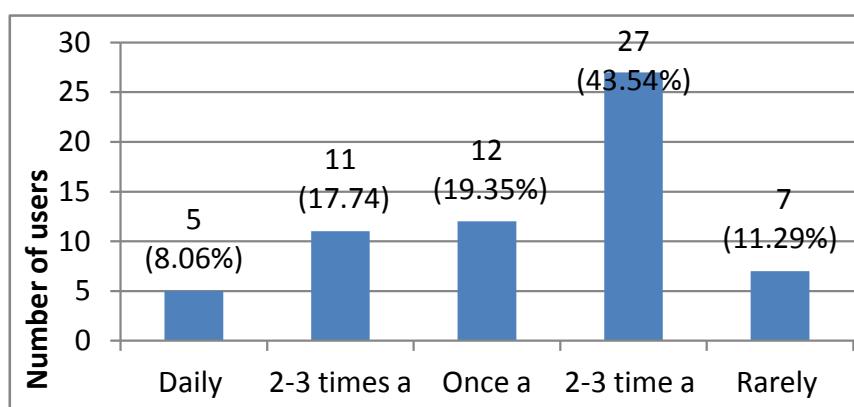
Sr. No.	Academic status	No. of respondents	Percentage
1	Professor	13	20.97
2	Associate Professor	11	17.74
3	Assistant Professor	38	61.29

Table 1 reveals that 61.29% of the respondents comprised of Assistant Professors/equivalents. Nearly 20.97% respondents were professors/equivalents and remaining 17.74% were Associate Professors. Experience of the faculty ranged from six months to 27 years with an average of 10.42 and median of 7.5 years.

## 8.2 Information Access and Utilization

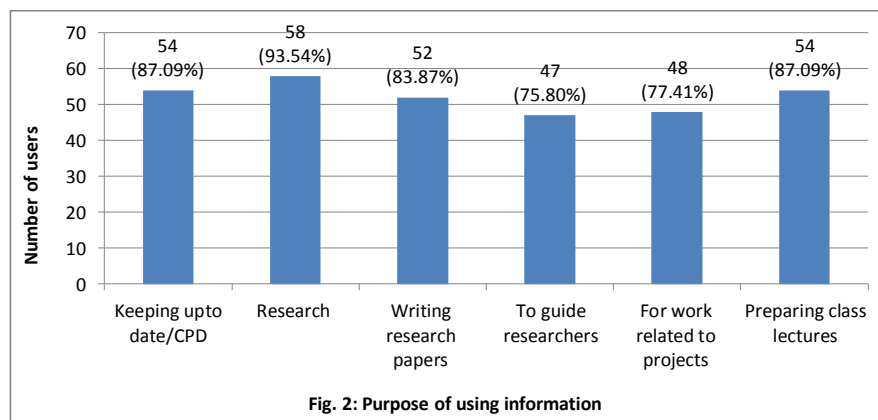
### 8.2A Frequency of visit to university library

Faculty members' frequency of visit to the university library was not found satisfactory. Majority of the faculty members comprising 43.54% visited library only 2-3 times a month. Nearly 19.35% users visited library once a month. Forlornly, only 08.06% teachers visit library daily. From the responses of the faculty it can be generalized that majority of the teachers were visiting library only to borrow or return books.



### 8.2B Purpose of using information

Fig. 2 makes it clear that majority of the faculty members constituting 93.54% of the respondents access and use information for research purpose. Nearly 87.09% teachers use information to keep them updated with the current developments in respective subjects and for Continued Professional Development (CPD). Similarly, 87.09% teachers use information to prepare class lectures. Around 83.87% faculty members access and use information for writing research papers and articles.



### 8.2C Sources of information

Information and Communication Technologies have influenced the information gathering habits of users to a great extent. Information is available in various formats from various sources. Table 2 shows that from where did the faculty look for information:

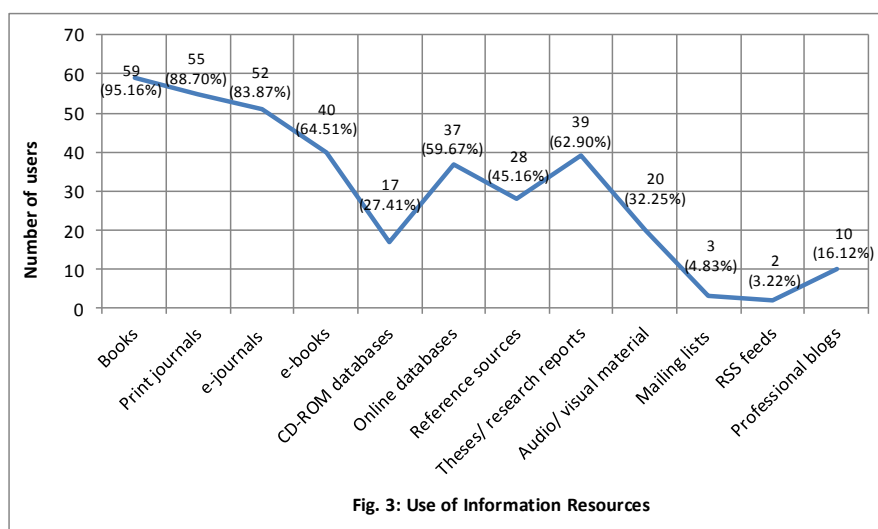
**Table 2: Sources of information**

Sr. No.	Sources of information	No. of respondents	Percentage
1	Library	56	90.32
2	Internet	62	100
3	Personal notes	34	54.83
4	Conferences/ seminars	41	66.12
5	Discussion with colleagues	43	69.35

It is evident from above table that all faculty members use the Internet to access information. In addition 90.32% use the resources and services of university library to gather information. Nearly 69.35% respondents discuss the topics with their colleagues to enhance knowledge and 66.12% participate in the conferences and seminars to know about the latest trends and developments in respective subjects.

### 8.2D Use of information resources

Information resources are multiplying at a rapid rate ranging from print to electronic format. Figure 3 shows that majority of the respondents i.e. 95.16% use books for gathering required information. Nearly 88.70% teachers get information from the print journals and 83.87% access e-journals to satisfy their information needs. About 64.51% users access open access e-books in respective subjects as university library is still to introduce e-books. GADVASU Library subscribes to both CD-ROM database and online database. Nearly 27.41% teachers use CD-ROM database and 59.67% use online databases to gather information. Around 16.12% respondents use professional blogs to get information and 03.22% use RSS feeds to get updates.





### **8.2E E-journals**

Responses revealed that 83.87% (52) faculty members access e-journals, whereas remaining 16.13% responded otherwise. Users access e-journals from following sources:

**Table 3: Sources of e-journals**

Sr. No.	Sources of e-journals	No. of respondents	Percentage
1	Through CeRA	29	55.76
2	Through J-Gate	14	26.92
3	Open Access Journals	47	90.38

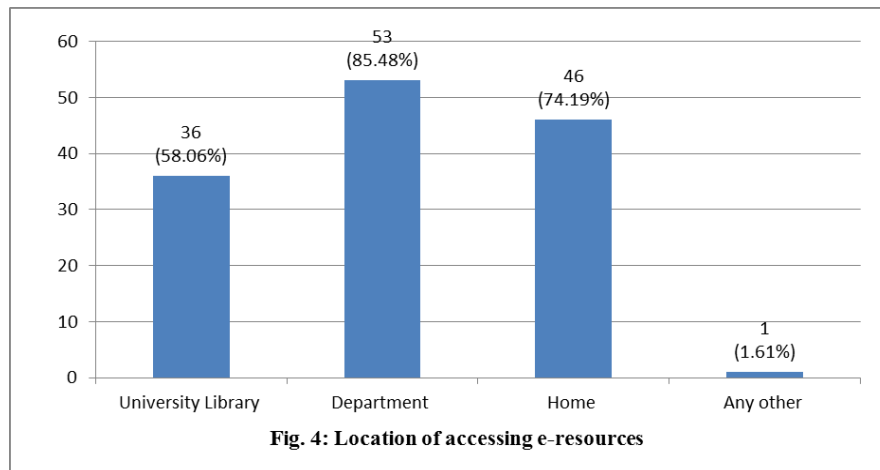
Table 3 makes it clear that out of the 52 respondents who use e-journals, 90.38% access articles from open access journals available over public domain. The university library is member of Consortium for electronic Resources in Agriculture (CeRA). A link to CeRA is provided on the university library website. It is disappointing to find that only a little more than 50% respondents access e-journals using CeRA. Similarly a link is also given on CeRA homepage to J-Gate, but only 26.92% respondents access articles from e-journals through J-Gate.

### **8.2F Preference over print v/s e-resources**

It has been found that 88.71% faculty members prefer to use both print and e-resources to access information. Nearly 9.68% like to use e-resources only, whereas a teacher responded of using print sources of information only. About 79.03% respondents use e-resources because of its 24x7 feature. Similarly, faster access and ease of use are the other reasons for popularity of e-resources. About 53.22% faculty members use print material because of its portability and ease of use features. Nearly 25.80% teachers use print resources as there is no need of technological gadgets for using these.

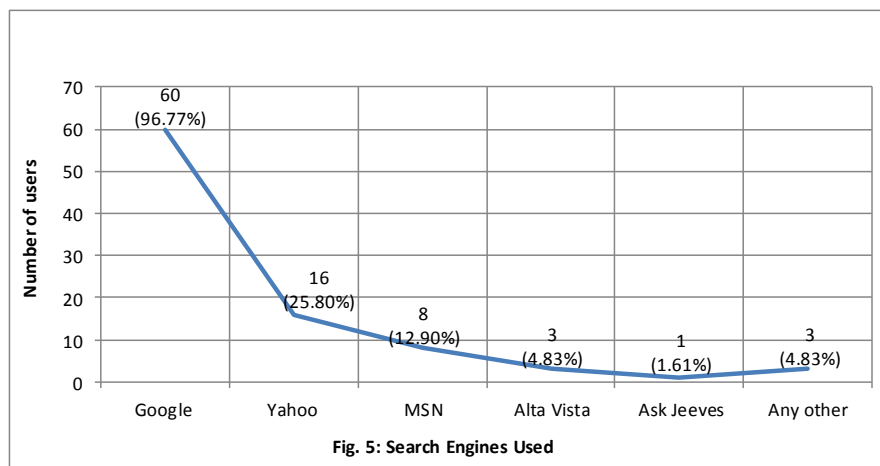
### **8.2G Location for accessing online resources**

Study revealed that 85.48% of the faculty members access online resources from their concerned departments. As compared to 74.19% faculty members accessing online resources from home, only 58.06% teachers access online information resources from the university library. The hectic schedule of teachers due to class lectures and research work seems to be the reason for this.



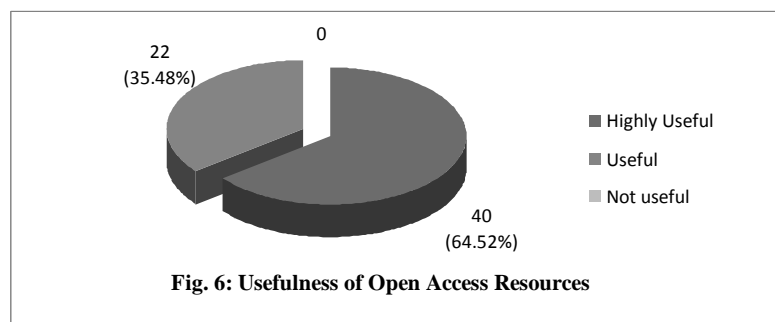
### 8.2H Search Engines Used to Access Information

Study brought forward that google is the most used search engines by faculty of GADVASU for accessing information. Around 25.80% respondents also use yahoo and 12.90% use MSN to access information. It has been found that 04.83% respondents also use soople and bingo search engines.



### 8. 2I Usefulness of open access e-resources

Figure 6 reveals that 64.52% of the faculty members find freely available e-resources as highly useful for meeting up their information needs. Remaining 35.48% respondents rated open access resources as useful. Various information resources in the discipline of veterinary and animal science and related fields are available online in public domain. Directory of Open Access Journals provides links to more than 100 open access journals in the said subject.



### 8.2J Satisfaction with information resources of University Library

Table 4: Satisfaction with formation resources of library

Sr. No.	Level of Satisfaction	No. of respondents	Percentage
1	Satisfied	39	62.90
2	Partially satisfied	23	37.10
3	Not satisfied	0	0

It is evident from table 4 that majority of the faculty members are satisfied with the information resources of GADVASU library for meeting up their information needs. Still 37.10% users indicated partial satisfaction with the resources of university library.

### 8.2K Problems faced in accessing information

Faculty remains busy in teaching and research work. Therefore, 21.88% teachers mentioned lack of time as major obstacle in accessing information. Other 21.88% users described the slow speed of Internet as a hindrance in utilizing e-resources. About 20.31% teachers responded that information is scattered at too many places. Nearly 06.25% users feel information overload in finding relevant information.

## 9. Suggestions of faculty

Teachers suggested for adding more journals titles in university library. About 24.19% faculty members suggested for subscribing e-journals in addition to the journals accessible through CeRA. Recognizing the advantages of e-resources, 3 teachers suggested for introducing e-books in university library. One of the respondents said that university library must organize a training programme for imparting skills to the faculty and students in using e-resources. At present, website of university library is accessible from within the campus over intranet. Three respondents suggested that the website of library should be made accessible over the Internet to enable users to use its resources and services even from off campus.

## 10. Conclusions

It is concluded that ICTs have highly influenced the information gathering habits of users. Internet and its applications have made a significant impact on the faculty members' frequency of visit to library. Based on the responses of faculty and observations of authors, it is generalized that majority of the teachers visit university library for using circulation service only. Teaching departments and home are the preferred places for using the Internet and its services. There has been lack of awareness among faculty about CeRA, as majority of the teachers access articles from open access journals. This requires library staff to regularly organize sensitizing programmes for making users aware about effective utilization of CeRA. Keeping in view the global trends and demand of faculty, library should subscribe to e-journals and introduce e-books in the university. Study advocates the views of Satpathy and Rout (2010) about the need for conducting regular studies on the use and usability of information resources.

## References

1. Adegboire, Adebayo Muritala (2011), "University faculty use of electronic resources: a review of the recent literature", PNLA Quarterly, Vol. 75, No. 4, available at: <http://unllib.unl.edu/LPP/PNLA%20Quarterly/adegbore75-4.pdf> (accessed 27 June 2012).
2. Agaba, D.M., Kigongo- Bukenya, I.M.N. and Nyumba, J.B. (2004), "Utilization of electronic information resources by academic staff at Makerere University", available at:

<http://ahero.uwc.ac.za/index.php?module=cshe&action=downloadfile&fileid=36807145012012560036285> (accessed 29 June 2012).

3. Angello, Consolata and Wema, Evans (2010), "Availability and usage of ICTs and e-resources by livestock researchers in Tanzania: challenges and ways forward", International Journal of Education and Development using Information and Communication Technology, Vol. 6, No. 1, 53-65, available at: <http://ijedict.dec.uwi.edu/include/getdoc.php?id=4838&article=846&mode=pdf> (accessed 29 June 2012).
4. Department of Animal Husbandry, Dairying and Fisheries (2011-12), "Annual Report" Ministry of Agriculture, India, 10, available at: <http://dahd.nic.in/dahd/WriteReadData/Annual%20Report%20English%202011-12.pdf> (accessed 24 June 2012).
5. Egberongbe, Halima Sadia (2011). "The use and impact of electronic resources at the University of Lagos", Library Philosophy and Practice, available at : <http://www.webpages.uidaho.edu/~mbolin/egberongbe.htm> (accessed 28 August 2012).
6. India, Department of Higher Education (2012). "University and higher education", Ministry of Human Resource Development, available at: <http://mhrd.gov.in/overviewh> (accessed 21 July 2012).
7. Indian Council of Agricultural Research, available at: <http://www.icar.org.in/> (accessed 21 July 2012).
8. Krubu, [Dorcas Ejemeh](#) and Osawaru, Kingsley Efe (2011), "The impact of information and communication technology (ICT) in Nigerian Universities", Library Philosophy and Practice, Paper 583, available at: <http://digitalcommons.unl.edu/libphilprac/583/> (accessed 29 June 2012).
9. National Dairy Development Board (2010-11), "Annual Report", 4, available at: <http://www.nddb.coop/English/AnnualReports/nddb-annual-report%202010-2011.pdf> (accessed 25 June 2012).
10. Okorie, C.N. and Agboola, I.O. (2012), "Availability and use of electronic resources in agricultural university libraries", PNLA Quarterly, Vol. 76, No. 3, available at:

<http://unllib.unl.edu/LPP/PNLA%20Quarterly/okorie-agboola76-3.pdf> (accessed 20 June 2012).

11. Papzan, Abdol hamid and Yaghoubi, Jafar (2008), "Identifying electronic information needs of agricultural faculty members", in *World Conference on Agricultural Information and IT*, available at: <http://www.cabi.org/GARA/FullTextPDF/2008/20083298079.pdf> (accessed 01 July 2012).
12. Pelzer, Nancy and Leysen, Joan M. (1991), "Use of information resources by veterinary practitioners. Library use and information-seeking behavior of veterinary medical students", *Bull. Med. Lib. Assoc.*, Vol. 79, No. 1, 10-16, available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC225478/pdf/mlab00118-0030.pdf> (accessed 20 June 2012).
13. Prabakaran, T., Ravichandran, P., Sathiyamurthy, M.G. and Vijaykumar, K. (2010), "Information access patterns of faculty in arts and science colleges in Chidambaram", *Library Philosophy and Practice*, available at: [http://www.webpages.uidaho.edu/~mbolin/prabakaran-ravichandran-sathiyamurthy-vijayaku\\_mar.pdf](http://www.webpages.uidaho.edu/~mbolin/prabakaran-ravichandran-sathiyamurthy-vijayaku_mar.pdf) (accessed 29 June 2012).
14. Renwick, Shamin (2005), "Knowledge and use of electronic information resources by medical sciences faculty at The University of the West Indies", *Journal of the Medical Library Association*, Vol. 93, No. 1, 21-31, available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC545116/> (accessed 27 June 2012).
15. Satpathy, Sunil Kumar and Rout, Biswanath (2010), "Use of e-resources by the faculty members with special reference to CVRCE, Bhubaneswar", *DESIDOC Journal of Library and Information Science*, Vol. 30, No. 4, 11-16, available at: <http://publications.drdo.gov.in/ojs/index.php/djlit/article/download/455/251> (accessed 25 June 2012).

---

**Follow us on:** [IRJLIS](#), [Facebook](#), [Twitter](#)