Emergence Of ICT In Veterinary Education With Special Reference To The Karnataka Veterinary, Animal And Fisheries Sciences University

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ABSTRACT

Libraries are changing in terms of their collection, facilities and services owing to constant changing scenario of information on account of Information and Communication Technology (ICT) applications and information seeking behaviour of clientele. Libraries are no longer considered as store house of knowledge rather they now act as powerhouse centre; this is especially true in the case of academic libraries attached to specialized institutes and universities. Computer has changed the process of codification and dissemination of information and given the capability to collect, preserve, and provides access to information in the electronic environment. Internet and World Wide Web revolutions have given new opportunities to globally share the information and to facilitate interaction and collaboration through social networking sites, chat, wikis, blogs, and video telecommunication services. However, veterinary education has profited largely from Information Communication Technology (ICT) advances, mainly, in last two decades. The aims of the present article is to describe some important veterinary issues deeply involved with ICTs, their impact and challenges in education field, and the relationships between them and the globalised society.

Keywords: Veterinary Education; digital library, Information Communication Technology

1. INTRODUCTION

From their historical beginnings as places to keep the business, legal, historical, and religious records of a civilization, libraries have emerged since the middle of the 20th century as a far-reaching body of information resources and services that do not even require a building. Rapid developments in computers, telecommunications, and other technologies have made it possible to store and retrieve information in many different forms and from any place with a computer and a telephone connection. The terms digital library and virtual library have begun to be used to refer to the vast collections of information to which people gain access over the Internet, cable television, or some other type of remote electronic connection.

The rapid development of information communication technology (ICT), in past few years, allowed a revolution in overall education systems, including medicine [5], veterinary medicine [6] and animal production field's involvement [4]. The ICT provides new pedagogical models for under and postgraduates veterinary students including continuous professional education, e.g. lifelong learning. The ICT advances, in last year's, gives news opportunities and challenges for biological scientists and teachers, veterinarians, veterinary technicians, practice managers, veterinary students and veterinary technician students. However, these elementary advances will be closely related with the future ICT development in all global society fields.
The acquisition of skills and competences in veterinary and animal science fields was improved, in last decades, regarding the medical and surgical learning, food animal management, food safety, public health, bioinformatics, genetic, research and many other areas. The ICTs are present, as a tool, in all of these scientific and technical fields. A paradigmatic multidisciplinary example can be done by the newest development of the genomic selection breeding based in thousands of single nucleotide polymorphisms in Ireland. A genomic (DNA-Deoxyribonucleic acid) databank for Irish dairy and beef cattle was developed and the program implementation expected during spring 2009 [1].

Many students, veterinarian and related professionals adopt, actually, digital devices for data storage, computation and communication. The use of Internet for educational and professional purposes also enhanced their interrelationships with society. The classic use of ancillary digital devises, connected to computers, personal digital assistants and servers for teaching and learning purposes in public and private analytical laboratories and veterinary hospitals was changed to a more active interaction with intra and internet systems. Other than laboratorial and clinical diagnosis of diseases in domestic, exotic and wild animals or hospital organizational models, ICTs are also responsible for new paradigms in animal production regardless food animal safety, public health and environment protection, improved by geospatial information technologies. The concepts of geographic or personal mobility, philosophy discussion, professional formation, commercial services and working groups are now in constant mutation. In next year’s, their global improvements should be closely related, other than technical advances, with ethical and regulatory performances considering the worldwide economic, policy and governmental differences or widespread problems.

In order to discover these aspects, the present chapter aim to identify some relevant areas of veterinary education using ICTs and to determine the impact of new technologies and challenges in each of them. General society involvement and ethical, regulatory acts and law implications are also considered in relationship with the veterinary fields.

In fact, only the worldwide use of technological development applied to research and learn in all professional fields, according international regulatory directories, can create a sustainable biodiversity for human and animal lives. Enlarged by the global climatic alterations, the prediction, control and surveillance of widespread emergent, epizootic and zoonotic diseases assumes a special relevance for animal production, veterinary and medicine fields.

2. KVAFSU LIBRARY: AT A GLANCE

Institutions of higher education have the main responsibilities of equipping students, researchers and faculty with advanced knowledge and skills. A well equipped and managed library is an essential prerequisite to achieve this. In particular, scientific research needs a library as well as its laboratories. Keeping this in view, the Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU) Library undertakes many responsibilities and performs varied functions and it plays a vital role in the university education and research by providing invaluable resource of knowledge.

The Karnataka Veterinary, Animal and Fisheries Sciences University Library were established in 1984 constituent college under University of Agricultural Sciences, Dharwad later it became central library of KVAFSU, Bidar (2005). The KVAFSU library had a humble beginning and over these 30 years its growth has been phenomenal and transformed from “offline” library to a modern “online library” with invaluable collection of e-resources to cater to the increasing information requirements of the aspirants/users.

Karnataka Veterinary, Animal and Fisheries Sciences University Library have a very good collection of books and journals pertaining to animal and veterinary sciences. The library book stack has been enhanced good number of textbooks, reference and other resources. The library
has CD-ROM i.e. VET-CD database (1972-2011) and also presently library is subscribing Indian and foreign journals to keep the students and faculty abreast of the latest scientific & technical developments both in India and abroad. Beside these, the library subscribes to good number of general magazines and news papers and receives many newsletters, annual report and popular magazines gratis publications from SAUs, ICAR institutes and other Indian organizations. Library is having separate wing of e- Resources providing on-line journals services through CeRA consortium.

The students of veterinary science at Karnataka Veterinary, Animal and Fisheries Sciences University are a frequent visitor to the library. Studying different courses of Veterinary Science, Dairy Science and Fisheries Sciences, they find the library nice and quiet place to be and they are the member of the library who uses the membership smart cards to the optimum. The KVAFSU library is very resourceful, especially for the subjects are studying.

Not only student’s visits to the library; but several other members of all over the world make use of the libraries and have been doing so from last three decades. The purpose for which the libraries are used has hardly changed. Seekers of knowledge have always been attracted by what a library can offer. Some others take a pleasure in reading for whom the library is a place to find that textbook, reference book and other rare book they were looking for. While the reasons behind the use libraries may not have changed in the so much with the passing years but the way library members use libraries and what they expect from them has undergone a complete transformation. Users do not expect the libraries merely to be storehouses of books and journals; today they look at little to be the hothouse of information that can aid their quest for knowledge.

The library members of KVAFSU library feel that, a library should be the ultimate centre for information. They say there is a need of libraries to provide them with all the information relevant to their studies, veterinary sciences being a professional and exhaustive area of study; it is easier if they can get most of their references from the library. Often it is difficult to procure all books by students. Studies require lot of referencing and libraries do come to the respite of the students when it comes to rare reference books which are often not even found it the book shops, and, as they say at the heart of every great university there lies a great library. Throughout the history libraries land seats of learning have been intertwined to such an extent that there is hardly anyone who fails to check on the libraries before being admitted to a veterinary sciences institution. Whether they were the great universities of the east or the west, libraries were an integral part of them.

In modern India, the libraries and educational institutions grew parallel to each other. During their occupancy of India, the British set up a number of educational institutions with libraries attached to them. Not all of them survived but it was nevertheless a start and by 2005 there were more than 40 veterinary colleges in India with attached libraries, and very few of the well known among these was the library of the Indian Veterinary Research Institute (IVRI), Izatnagar, TNUVAS, Chennai and NDRI, Karnal which boasted a beautiful collection of latest collection of resources.

This was just the beginning with the establishment of university; the status of the libraries got a further facelift in India. Indian Veterinary Research Institute (IVRI), Izatnagar, TNUVAS, Chennai and NDRI, Karnal created libraries that became legendary in their own wake. Interestingly, the growth of libraries in western countries itself was much influenced.

3. ROLE OF LIBRARY

While several practices in veterinary sciences education have become obsolete over the years, the trend of having a dedicated library in educational establishment has not waned in the modern times. The universities and colleges continue to have more sophisticated libraries that
cater to the needs of this day and age scholars. To maintain communication of new information and technology to the veterinary scientist is the main task of university libraries, thus a library plays an important constructive role in the process of transfer of information to a research scientist by arrangement of necessary material and literature. The main function of a veterinary library is to disseminate knowledge and information through stocking of books, various bibliographical literatures in the library because books are carrier of thought through the thinkers of past and present. Other foremost function of veterinary library is to help the research scientist in research programme, implement of instructional programme of the veterinary university. These functions of library are based on the idea of bringing the right information to the right users at the right time and in the right manner.

In order to achieve the object of veterinary libraries, they must be organized on functional basis; unless and until the libraries are organized on the functional basis they will not render effective and efficient services to the scientists, readers and academic staff. The library can function well only when it is organized and administered by competent staff. The library staff can make or marked the progress of the library, efficient library service pre-supposes adequate staff. After having been organized a veterinary library on scientific basis, then only it can function smoothly and render effective and efficient services to the veterinary scientist and researchers. All these factors are indirectly related to the veterinary librarian since he/she is concerned with designing of above mentioned necessities.

The campuses at KVAFSU University do nothing less, each campus has an enviable library and one can see students milling around throughout the day and some during late evening hours too. The first thing one experience is a hushed silence after the library at the knowledge campus of KVAFSU. It directly contrasts with the sounds of activities outside. A long issuing counter is the next were students are all lined up to the home their finds for the day.

All the students are feels that it is not just the resources but the entire experience that a library offers. The library boasts an infrastructure that provides ease in accessing the books not to mention aesthetics that gives it the feel of a modern reference area. It is dedicated to books on veterinary, animal and fisheries sciences and provides a number of references pertaining to the two areas apart from catering the general interest of users.

4. ARRANGEMENT OF BOOKS

Arrangement of books matters a lot, it has to be properly categorized and labeled so any person can searching for a particular book does not get confused. The KVAFSU library is a centre for veterinary, animal and fisheries sciences studies is also a different experience. The campus houses undergraduate and post graduate courses in veterinary, dairy and fisheries sciences and has a library catering to the all subjects and a variety of other reference materials. The KVAFSU library also has another collection of books dedicated to competitive examinations studies at its innovation campus. One of the oldest libraries existing at KVAFSU lies at its Hebbal campus, Bangalore, and the campus houses a number of departments and the same diversity are reflected in the library and neatly arranged books and journals on different departments under veterinary and dairy sciences, can be found here. Arrangement of books matters a lot, and they have to be properly categorized and labelled so that a person searching for a particular book does not get confused.

The library is being conducting workshops and user awareness programmes to equip the users to make optimum utilization of available resources. Library will issue prompt lists of the new arrivals so that the students and faculty using the library get instant notice and can access the latest acquisitions. The KVAFSU library also facilitates on-line information retrieval through CeRA consortium, Elsevier, Science Direct and DOAJ journals which opens up vast resources of information accessible to students and faculty members, while the books give required information, journals help to keep abreast with the latest developments.
KVAFSU library have established exchange facilities with other libraries and have membership with the IVRI Library, Izatnagar, Tamil Nadu Veterinary and Animal Sciences University, (TANUVAS), Chennai and other University libraries.

Libraries come in handy especially for students doing their postgraduate as they need to do a lot of referencing. The information block of centre for post graduate studies at KVAFSU sees to it that the students pursuing their postgraduate education in the field of veterinary, animal, dairy and fisheries sciences get adequate learning resources to support their studies. The usages of the libraries are not however restricted to academics, each library at KVAFSU boasts superlative collections of veterinary and animal sciences that are available to the members of the library. Even though college time table is packed with theory and practical classes, the students always make time to come to the library and have their pick of favourite collections.

One thing common at all the campuses of KVAFSU Libraries is the availability all the leading dailies and periodicals. It plays a significant role in making the library an information centre and not just a storehouse for books and It helps members to keep abreast with many happenings’ around them on a day to basis. At home any one can get one or at most two newspapers but the library gets a variety of newspapers and all users get an opportunity to get different perspectives on an issue. While dailies and periodicals are helpful in creating awareness on different issues, the IT services available in the library makes browsing easier and each library comes with a section earmarked for using computers and internet providing access to online resources.

5. LIBRARY SOFTWARE

KOHA open source software helps in smooth flow of library operation in an automated environment. It provides different modules that are of great help. Looking keenly at the libraries, one can discern how technology plays a significant role today. Software such as KOHA is being used in all the libraries of KVAFSU library to make the entire system automated and faster. As it is being using whole NARS systems of ICAR and supporting to all SAUs through e-Granth project under NAEP subcomponent-I to bring all agricultural universities and ICAR Institute libraries under single platform to create a databases to merge in World Agricat.

6. STOREHOUSE TO POWERHOUSE

Knowledge is power. Library is a powerhouse of generation of Information and Knowledge. Dissemination of knowledge/information is the main function of the library and library generates information through various types of bibliographical resource and literature. The object of library is to make this information and technical know-how to the users who are the actual aspirant of information. The appropriate transfer of information in veterinary presupposes adequate study of users who are in need and the actual beneficiaries. Without libraries neither education nor research work can be carried out in the universities as well as at the research stations and hence development of libraries is the prime need of the current age in order to effect contact between the right book and the right reader at the right time and in the right manner.

The library is a growing organism. The fifth law of library science in the theory proposed by the celebrated librarian Dr. S.R. Ranganathan accords libraries the status of a constantly evolving entity. His theory is widely acknowledged by the librarians all over the world. The way libraries have transformed over the centuries and have survived the onslaught of time indeed proves it to be so. Two prominent factors that have lead to this are the growth in information Science and Information Technology. The changes in research patterns, academic exchanges and a number of factors have lead to transformation of the entire gamut of tools,
approaches and practices in managing information and hence, libraries that have been known as the repository of information since ages.

One of the major shifts in library science can be seen in the terms of the end use. The focus has shifted from merely collecting and developing the libraries to providing enhances user satisfaction. This has also catapulted libraries into reviewing the quality of services offered to its patrons bringing into action quality management land assessment tools assessing each stage from acquisition to the dissemination of information.

Second major shifts on library science were felt after information Technology (IT) became the flavour of the decade. It changed the way people viewed things, the way they interacted and influenced the academic life as well. Libraries that play a significant role in academic and research could not be left outside the gambit of this influence and it is to the credit of library and information science that it integrated quickly with IT and adapted new technologies for the better functioning of libraries. The effective streamlining of all the information available requires a greater degree of management. Over the past two decades the amount of information published in the forms of books, journals, online materials, report, databases, case studies have multiplied manifolds. IT enabled the automation of libraries helping librarians to maintain a database of their stocks online with much less paperwork than it involved earlier. Apart from automation of traditional libraries, the IT revolution has also given rise to something known as the digital library. These digital libraries are gradually making their presence felt. They contain information pre-dominantly in the electronic form and depending on the availability of internet; it can also be accessed by a larger number of people. In other words it is the case of the library coming to the user and not the user going to the library as the case of physical libraries.

7. CONCLUSION

The situation is same or better in most of the academic libraries attached to higher education institutes across India. It shows that academic libraries in India are adopting very well with the changing environment. The LIS professionals are playing a crucial role to see through this transition and to ensure place for libraries in the future. Computer professionals are contributing in relation to technological development, which are part of these libraries in developing and implementing ICT applications. The similar kind of change is necessary for the academic libraries in developing countries for their future existence. The library professionals in these countries have to gear themselves in a big way to bring the similar kind of changes in the library services with the help of authorities and computer science professionals. The quickly technological digital devices, web and wireless communications developments created non-imaginable implications in animal, veterinary and medicine fields in the last decade.

REFERENCES
