

Information Technology and Online Resources in Dental College Libraries of Haryana

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Introduction

Information technology (IT) is not a new concept. In the last decade, IT education and applications have continued to move forward. IT education in the state of Haryana has been enhanced and strengthened recently. Haryana is among the smallest states of India in both population and geography, but it is committed to providing every kind of education to its students. It is taking the lead in the field of medical education, with nine dental colleges. In medical and dental science, IT is essential. Library professionals working with medical organizations have a great challenge to fulfill the needs of demanding users for library and information service and resources. The use of IT is necessary to give access to e-resources. This study reflects the current state of the implementation of IT in dental libraries, and attempts to evaluate the current potential of special and academic libraries to provide access to scientific and research information.

Objectives

- To study the IT infrastructures at dental college libraries of the Haryana State
- To find and examine the patterns of use of IT by the respondents in their professional activities
- To analyse respondents' perception of the appropriateness of different IT tools.
- To study the problems faced by respondents in using IT infrastructure.
- To study the obstacles and initiatives in implementing the IT infrastructure.

Previous Studies

A number of studies have been carried out on IT in universities and research organizations. Wombath and Abba (2008) found that The Federal University of Technology, Yola library has embraced ICT in its services. Catalogue cards are now produced by computer. FUTYLIS, locally developed software, is being used to prepare the library's OPAC. This is to be replaced by the more comprehensive ALICE FOR WINDOWS Software in order to completely offer online services. Out of the eight academic librarians, six are computer/Internet-literate. The library has seven computer operators. Saeed, et al., (2000) observe that availability of funds and lack of IT infrastructure were reported by a majority of the in university libraries of Pakistan. Similar results were found in a later study by Haider (2004). Ramzan (2004) reveals that 57 of out of 244 libraries did not any have any computers. The majority, 129 libraries, had fewer than 5 each, 48 had 5-20, and 10 libraries had more than 20 computers. Only 57 percent of academic and research libraries offered e-mail, and 53 percent had Internet access in their libraries. His studies also reveal a generally low level of IT knowledge among librarians. Askhita (2000) describes how since 1998, Al-Assad National Library has allowed its visitors to use the Internet, and has also published its online public access catalogue on an Internet-enabled server. He also advises that the Arab world

should become involved in information production and e-commerce. Al-Zahrani (2000) says that Kuwait University library has introduced CD-ROM and Internet facility in its libraries. Similarly, University of Bahrain libraries have implemented an electronic check-out system, and are using CD-ROM databases. Taran and Gorman (1999) conclude state that many Vietnamese libraries now have basic IT hardware and software, and the telecommunications infrastructure has improved to the point that most libraries have reliable telephone links. Gorny and Jazdon (1997) recognize that the best developed IT infrastructure is found in academic libraries, while the situation is worse in special libraries, because of a lack of financial funds.

Methodology

A questionnaire was structured to collect the primary data. Visits were made to all the dental college libraries of Haryana, where the librarians were consulted. Information was also collected from the official documents of the colleges.

The study is limited to the dental college libraries of Haryana, which are listed in table 1.

College	Abbreviation	Courses offered
B.R.S Dental College, Panchkula	BRSDC	BDS
D.H.A Govt. Dental College, Rohtak	DHADC	BDS, MDS
Jan Nayak Choudhary Devi Lal Dental College, Sirsa	DLDC	BDS
Manav Rachna Dental College, Faridabad	MRDC	BDS
Maharishi Markandeshwar College of Dental Science & Research, Mullana (Ambala)	MMDC	BDS, MDS
P.D.M Dental College & Research Institute, Bahadurgarh	PDMDC	BDS
Shri Guru Gobind Singh Tercentenary Dental College , Budhera (Gurgaon)	GGSDC	BDS
Sudha Rastogi Dental College, Bhopani (Faridabad)	SRDC	BDS
Swami Devi Dayal Hospital & Dental College, Barwala (Pachkula)	SDDDC	BDS

Table 1

There are nine dental colleges in Harayana state. All offer a bachelor's degree in dental surgery (BDS). All are self-financed except DHADC. Only two colleges, DHADC and MMDC provide a master's degree in dental surgery (MDS).

Discussion

Collections of the Dental College libraries

College	Books	Thesis & Dissertation	E-Books	E-Journals	CD
BRSDC	3911	25	no	no	no
DHADC	880	30	no	20	no
DLDC	2423	no	no	no	30
MRDC	1113	no	no	no	50
MMDC	6373	no	no	37	130
PDMDC	3004	no	no	no	161
GGSDC	5800	no	12	07	135
SRDC	4050	no	no	no	50
SDDDC	5225	no	25	13	157

Table 2

MMDC library has the largest collection, followed by GGSDC and SDDDC. Two-thirds of these libraries have fewer than 5,000 books. DHADC is the only government college in the group, and it has the lowest number of books. MMDC and DHADC have the largest collection of e-journals. A large majority have no collection of theses and dissertations.

Current periodicals

College	Indian	Foreign	Total
BRSDC	10	12	22
DHADC	no	14	14
DLDC	08	18	26
MRDC	09	10	19
MMDC	16	64	80
PDMDC	05	15	20
GGSDC	15	15	30
SRDC	06	09	15
SDDDC	16	13	29

Table 3

MMDC library has the largest collection of journals, with 80. The rest have around 30 titles, with the government college DHADC at the bottom with only 14.

Library Automation

College	Year library established	Year of automation	Software	Modules	Automation Status
BRSDC	1992	no	no	no	no
DHADC	1964	no	no	no	no
DLDC	2005	2007	Lib. Mgt. System	Circulation, Maintenance Acquisition, OPAC	Partially
MRDC	2006	2006	Gaba	Circulation, Maintenance Acquisition , OPAC	Fully
MMDC	Feb.2000	2007	SOUL	Circulation, Maintenance Acquisition , OPAC	Partially
PDMDC	Sept.2006	no	no	no	Proposed
GGSDC	2000	2001	In-House	Circulation, Maintenance, OPAC	Partially
SRDC	Oct.2002	2001	In-House	Circulation, Maintenance, OPAC	Partially
SDDDC	2004	2003	Libzee	Circulation, Maintenance Acquisition , OPAC	Fully

Table 4

Only two of nine institutions are fully computerized, with four being partially computerized. DHADC has no automated services and none planned. This is a shocking outcome in the era of ICT, since new technologies are coming into existence very rapidly and older ones quickly becoming obsolete. Only MMDC library has standardized library software, i.e., SOUL, with the others surviving with locally-developed solutions.

Factors leading to automation

College	Librarian's initiative	Users	Workload	Management	Improve in quality	Minimize repetitive work
DLDC	yes	no	no	no	no	no
MRDC	yes	no	no	yes	yes	yes
MMDC	yes	no	no	yes	yes	no
GGSDC	yes	no	no	no	yes	yes
SRDC	yes	no	no	no	yes	no
SDDDC	yes	no	no	yes	yes	yes

Table 5

In all the six dental college libraries that are fully or partially automated, this is due to the initiative taken by the librarians. All the college libraries have implemented automation to improve the quality of the services except DLDC library. Along with the above factors, the managing authorities in MRDC, MMDC, and SDDDC were also willing to see the libraries automated. MRDC, GGSDC, and SDDDC libraries also implemented automation to minimize the repetitive work.

Steps in implementation

College	Staff Training	Seminars and Conferences on Library Automation	Study Related Literature	Visit Automated Libraries	Discuss with Other Librarians
DLDC	no	no	no	no	no
MRDC	yes	yes	yes	yes	yes
MMDC	yes	yes	no	no	no
GGSDC	no	yes	yes	yes	yes
SRDC	yes	no	no	no	no
SDDDC	no	yes	yes	yes	yes

Table 6

A majority of the college librarians have attended seminars or conferences on automation before implementing it. MRDC, MMDC, and SRDC libraries sent their staffs for training. Library personnel at MRDC, GGSDC, and SDDDC have also taken some more steps to lead library automation, i.e., study related literature, visit automated libraries, discuss with other librarians.

E-Journal subscriptions

College	Blackwell	BDA	Elsevier	Springer	Metaline	NPG	LWW	Academic	Prime
BRSDC	no	no	no	no	no	no	no	no	no
DHADC	yes	no	yes	no	no	no	yes	no	no
DLDC	no	no	no	no	no	no	no	no	no
MRDC	yes	no	yes	no	no	no	no	no	no
MMDC	yes	yes	yes	no	no	no	no	no	no
PDMDC	no	no	no	no	no	no	no	no	no
GGSDC	yes	no	yes	no	no	no	no	no	no
SRDC	yes	no	yes	no	no	no	no	no	no
SDDDC	yes	no	no	no	no	no	no	no	yes

Table 7

BDA: British Dental Association; NPG: Nature Publishing Group; LWW: Lippincott Williams & Wilkins

There are a number of online journal packages in the field of dental science, of which some popular packages have been listed in table 7. The libraries mainly subscribe to Blackwell and Elsevier. The absence of online journals in these libraries indicates that the level of research in these colleges is low.

Infrastructure

College	Telephone	Fax	LCD Projector	T.V.
BRSDC	no	no	no	no
DHADC	yes	no	yes	yes
DLDC	no	no	yes	no
MRDC	yes	no	no	no
MMDC	yes	yes	no	yes
PDMDC	no	yes	no	no
GGSDC	yes	no	yes	yes
SRDC	no	no	no	yes
SDDDC	no	no	yes	yes

Table 8

Less than half the libraries have telephones, and less than one fourth have faxing capability. The lack of these is a major barrier to communication. The same numbers have television and LCD projector, respectively. The dental college libraries of Haryana are facing a lack of basic facilities which are needed in any library.

Hardware

College	PCs	Server	UPS	Printer	Scanner	Barcode Scanner
BRSDC	04	no	03	no	no	no
DHADC	04	01	01	01	02	no
DLDC	30	01	06	01	no	no
MRDC	31	01	01	01	01	no
MMDC	05	01	04	01	01	no
PDMDC	05	no	05	01	01	no
GGSDC	19	01	22	02	02	no
SRDC	11	01	11	01	01	no
SDDDC	06	02	06	02	no	01

Table 9

MRDC and DLDC libraries have the largest number of PCs. GGSDC and SRDC are next, with BRSDC and DHADC at the bottom. All the libraries have their own server except BRSDC and PDMDC. All have printers except BRSDC.

Operating systems

College	Windows 95	Windows 98	Windows 2000	Windows XP	Windows Vista	Unix	Linux
BRSDC	no	yes	no	no	no	no	no
DHADC	no	yes	no	no	no	no	no
DLDC	no	no	yes	no	no	no	no
MRDC	no	no	no	yes	no	no	no
MMDC	no	no	yes	no	no	no	no
PDMDC	yes	yes	yes	no	no	no	no
GGSDC	no	yes	yes	no	no	no	no
SRDC	no	yes	no	no	no	no	no
SDDDC	no	no	no	yes	no	no	no

Table 10

A majority of the libraries under study use Windows 98, while nearly half have implemented Windows 2000. Only MRDC and SDDDC have launched Windows XP.

LAN installed

College	Institute	Library
BRSDC	no	no
DHADC	no	yes
DLDC	no	no
MRDC	no	yes
MMDC	yes	yes
PDMDC	yes	yes
GGSDC	no	yes
SRDC	no	yes
SDDDC	no	yes

Table 11

Networking is essential to optimize the use of automated services. All the institutions have set up a LAN except BRSDC and DLDC. Only MMDC and PDMDC have established a LAN at campus level.

Internet connection

College	Dial Up	Leased Line	Broad band
BRSDC	no	no	no
DHADC	no	no	yes
DLDC	no	no	no
MRDC	no	yes	no
MMDC	no	yes	no
PDMDC	no	yes	no
GGSDC	yes	no	no
SRDC	no	yes	no
SDDDC	no	yes	no

Table 12

Slightly more than half the libraries have leased line Internet connectivity. DHADC has broadband access. BRSDC and DLDC do not have Internet connectivity.

Internet service provider

College	ERNET	VSNL	ASIA NET	BSNL	AIRTEL	RELIANCE	GLIDE
BRSDC	no	no	no	no	no	no	no
DHADC	no	no	no	yes	no	no	no
DLDC	no	no	no	no	no	no	no
MRDC	no	yes	no		no	no	no
MMDC	no	no	no	no	no	no	yes
PDMDC	no	no	no	yes	no	no	no
GGSDC	no	no	no	no	no	yes	no
SRDC	no	no	no	no	no	no	yes
SDDDC	no	no	no		no	no	yes

Table 13

One third of the libraries use GLIDE as an Internet service provider. Libraries of DHADC and PDMDC use BSNL, and MRDC uses VSNL.

Conclusion

Most of the dental college libraries in this study are in a beginning stage, and will continue to mature. There is an urgent need for improvement in the IT infrastructure. There is a clear lack of e-resources. Due to non-availability of any external financial aid and the self-financed nature of the institutions, there has always been a state of financial crisis in these libraries.

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