Knowledge and Use of Digital Resources by Medical College Students of Government Medical College Jammu J. & K. (India)

Mohd Iqbal Bhat  
Research Scholar  
DLIS Mangalore University  
Manglore, Karnataka, India  
iqbalnabi23@yahoo.com

Dr. Mahesh V. Mudhol  
Chairman  
DLIS Mangalore University  
Manglore, Karnataka, India

Abstract

Libraries are reservoirs of knowledge forever. However, in the olden days, only elite were allowed to read the books which were stored under lock and key. Later the conventional libraries came and gradually they became Public Libraries. They were run in large and ancient buildings, holding numerous books and journals arranged in the racks reaching the roofs. In many a place catching dust and cobwebs. Gradually these traditional libraries are going to be replaced by clean cubicles with computers and readers sitting in front of them and watching the world through windows. An attempt has been made to determine the present status of knowledge and use of digital resources. It was observed that use of digital resources is still inadequate among the medical students of the Govt. medical college Jammu. This paper presents the findings of a survey to about the knowledge and use of digital resources by medical students through CD-ROM databases, online databases, online journals and OPAC etc. available in the medical college libraries. The subjects chosen for this study were medical students of Govt. medical college Jammu, Jammu And Kashmir, India. For evaluating study questions and data collection, the questionnaire was distributed to a random sample of 160 MBBS, MD/MS and P.G. diploma students. The result of this survey are presented and discussed in this paper.

Keywords: Digital resources, Electronic resources and medical college libraries.

Introduction

There is a steady decline of faith in Medical profession as a result of contractual and confliction in relationship resulting in increase in filing of Medical negligence cases in various forums. The Medical professionals on the other hand are satisfied with whatever training they are receiving and happy with the information available in the text books. This is making difficult for them to face challenges with the patient community who are not only educated but also try to get all the relevant information regarding their health problem. This challenge can be faced only if the Medical professionals are aware, accept and correct their deficiency. That is possible if we could provide them the latest information in the fastest route and also make the Medical professionals
utilize it in the best possible way. The solution for this is, e-teaching and e-learning for the Medical teaching faculty and the librarians. Tomorrow’s power in this world is not going to be gold or riches but knowledge. Libraries have to play a pivotal role in this revolution. Knowledge in the form of writings on papyrus, skin, clay available only to limited members of society in the olden days have changed into public libraries and now to e-libraries with subscription facility. In today’s rapid changing world, information needs of learners and knowledge seekers are met through a plethora of sources. The digital resources available in a library play a prominent role in facilitating access to required information to the users in an easy and expeditious manner. Further, one need not go to the library to make use of print formats as the digital resource can be made use of by any user through online access via networks or authentication methods at any time by comfortably sitting at home or office. However, it is imperative that one should be familiar with the use and exploitation of digital resources for their quicker and effective usage. Further, digital resources can also be used for efficient retrieval. Thus, digital resources in a library play a significant role in academic libraries as they are mostly tuned for the promotion of academic excellence and research. In view of all this, digital resources like CD-ROM database, online databases, online journals, OPACs and Internet etc. are slowly replacing the importance and usage of print media.

In medical libraries, the latest technologies are increasingly used to collect, store, retrieve and disseminate a great amount of information to help medical professionals in their day-to-day education, research, and clinical practices. The medical websites and databases developed by medical institutions, associations, agencies, and publishers provide the latest information. In a developing country like India, medical professionals are quite aware of the new technologies used by their counterparts in the developed nations. In Jammu and Kashmir, there are 4 medical college libraries with internet facility. A survey was conducted to examine the present condition of Govt. Medical College Jammu Library, to assess the extent of meeting the information requirements of users and to identify the drawbacks in the provision of services so that the suggestions can be made to improve these services. A brief report of the survey has been presented in the following paragraphs.

**Literature Review**

*Biradar and others (2006)* conducted a study on internet usage by the Student and faculties in Kuvempu University. The results indicated that 42.1% students use internet twice a week and 31.25% faculties use it every day. The majority of students as well as faculties use internet for study/teaching purpose. The favourite place for using internet is library followed by commercial places. A thumping majority of respondents are satisfied with internet sources and services. *Asemi (2005)* shows that all the respondents were using the Internet frequently because all faculties were provided connection to the Internet. It was revealed that the researchers of the university were getting quality information through the Internet. Fifty-five percent of the respondents searched for scientific information through the Internet because the university library had provided access to various databases and online journals for all the students and staff. *Mishra, Yadav and Bisht (2005)* conducted a study to know Internet utilization pattern of the undergraduate students of G B Pant University of Agriculture and Technology, Pantnagar. The findings of the study indicated that a majority of the students (85.7%) used the Internet. Out of the Internet users 67.7% were male students and 32.3% female students. The findings of the study also showed that 61.5% of the males and 51.6% of the females used Internet for preparing
assignments. A majority of the respondents i.e. 83.1% male and 61.3% female respondents indicated that they faced the problem of slow functioning of Internet connection. Robinson (2005) examined the Internet use among African-American college students. The respondents were surveyed by using the 43-item questionnaire to determine the frequency of Internet. The results of the study indicated that most of the African-American college students (76%) had used the Internet for more than three years. The use of the Internet for most African-American college students occurred at school or at the work place with 49% of the responses at home. 47% of the responses indicated that they spent an average of two hours per day on-line. A small percentage of the students spent 5-6 hours per day on the Internet. 43% of the Students used the Internet primarily to learn and find school resources. Rajeev Kumar and Amritpal Kaur (2004) studied the use of internet by teachers and students in Shaheed Bhagat Singh College of Engineering & Technology, Ferozepur (Panjab). They found that 46.7% teachers and 36.7% student’s daily use the internet. About 90% respondents use internet at their college. Yahoo is found as the favorite search engine. Only 31.7% respondents were fully satisfied, whereas 36.7% were partially satisfied with internet facilities. Achonna (2008) in research article “Awareness, Access and Usage of E-Journal Resources of the Library, by the Students of Yaba College of Technology, Yaba –Lagos Nigeria”, examined the students’ awareness, access, usage and problems faced in use of e-journal resources at the Yaba College of Technology library. Use of e-journal resources was found low. Lack of skills, inadequate provision of computers, power outrage etc. were the problems faced in use of resources. Study concluded the need for the training skills, provision of adequate computers, need to popularize the information technology and its usage and to motivate the students to use e-journal resources. Joteen Singh et al. (2009) executed a study under title “Use of Internet Based E-Resources at Manipur University: A Survey” to examine the use of electronic information focusing on the Internet services by post graduate students, research scholars, teachers and non-teaching staff members. Users were using the Internet mainly to download the information from web based resources and web sites. Lack of power supply and the low speed Internet access were general problems faced by users in accessing information from web based resources.

1. Scope and limitation
   The scope of the study is limited to the knowledge and usage of digital resources in order to fulfill the academic needs of users. It focuses on the digital resources and services available in the Govt. Medical college Jammu library.

2. Objectives
   The objectives of the present study are:
   - To assess the amount of familiarity and frequency in the use of the different types of digital resources by the medical students;
   - To find out the purpose and utilization of the digital resources and services by the medical students;
   - To know the adequacy of information in digital resources;
   - To find out the impediments encountered by the medical students while accessing and using digital resources; and
   - To suggest important suggestions and recommendations to improve the digital resources and services for the benefit of users.
3. Methodology

A questionnaire tool was utilized to determine the information needs and the use of digital resources by medical students in the Govt. medical college Jammu. The questionnaire was distributed among 200 medical students pursuing MBBS, MD/MS and P.G. diploma courses at Govt. Medical college Jammu J. & K. India. The all questions were related to use of digital resources, internet, CD Rom databases and OPAC etc. However, the researcher received responses from the 160 medical students only. Then the data was analyzed and interpreted for the outcome and presented in the following paragraphs.

4. Data Analysis

5.1 Medical students familiarity with digital sources

The distribution of students according to their familiarity to use digital resources is shown in table 1.

<table>
<thead>
<tr>
<th>Use</th>
<th>No of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiar</td>
<td>89</td>
<td>55.63</td>
</tr>
<tr>
<td>Not familiar</td>
<td>71</td>
<td>44.37</td>
</tr>
<tr>
<td>Total</td>
<td>160</td>
<td>100.00</td>
</tr>
</tbody>
</table>

It is evident from Table 1 that 55.63 percent of the medical students are familiar with digital resources, while 44.37 percent replied in the negative.

5.2 Frequency of using the computers

The distribution of medical students according to their frequency of using the computers is shown in Table 2.
Table 2

Distribution of medical students according to their frequency of using the computers

<table>
<thead>
<tr>
<th>Frequency</th>
<th>No of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>38</td>
<td>23.75</td>
</tr>
<tr>
<td>2 or 3 times a week</td>
<td>39</td>
<td>24.37</td>
</tr>
<tr>
<td>Once a week</td>
<td>28</td>
<td>17.50</td>
</tr>
<tr>
<td>Once in a month</td>
<td>33</td>
<td>20.62</td>
</tr>
<tr>
<td>Rarely</td>
<td>11</td>
<td>6.88</td>
</tr>
<tr>
<td>Never</td>
<td>11</td>
<td>6.88</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>160</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

It is evident from Table 2 that 24.37 percent of the medical students are using the computers two or three times a week, 23.75 percent daily, 20.62 percent once in a month, 17.50 percent once in a week, 6.88 percent rarely and the remaining 6.88 percent of the medical students are never using the computers.

5.3 Frequency of using the digital resources

The distribution of medical students according to their frequency of using the digital resources is given in Table 3.

Table 3

Distribution of medical students according to their frequency of using the digital resources in percentages (n=160)

<table>
<thead>
<tr>
<th>Digital Resources</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily</td>
</tr>
<tr>
<td>CD-ROM Databases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Internet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>55</td>
</tr>
<tr>
<td>E-mail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>63</td>
</tr>
<tr>
<td>Online Databases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>
It is evident from Table 3 that 27.5 percent of the medical students are using the CD-ROM databases daily, 21.87 percent once in a week, 16.88 percent two or three times in a week, 14.38 percent once in a month, 11.25 percent rarely, and 8.12 percent never use the CD-ROM databases. Majority of the medical students (34.38%) using the Internet daily, 21.25 percent once in a week, 20.63 percent two or three times in a week, 8.12 percent once in a month, 8.12 percent never use, and 7.5 percent rarely use the Internet. 39.39 percent of the medical students are using e-mail daily, 30 percent two or three times in a week, 14.37 percent once in a week, 8.75 percent once in a month, 4.38 percent rarely, and 3.13 percent never use the e-mail facility.

It is also evident from table 3 majority of the medical students (25.62%) are using the online databases once in a month, 21.25 percent never use, 15.63 percent once in a week, 14.38 percent two or three times in week, 13.75 percent rarely use, and 9.37 percent daily use the online databases. Majority of the medical students (20.63%) are using the online journals once in a month, 18.75 percent never use, 17.5 percent once in a week, 17.5 percent rarely use, and 11.25 percent daily use the online journals.

It is also evident from table 3 that 33.65 percent of the medical students are using the search engines daily, 33.13 percent two or three times in a week, 20 percent once in a week, 4.37 percent once in a month, 3.75 percent never use, and 3.12 percent rarely use the search engines. Majority of the medical students (24.38%) are using the online public accesses catalogue once in a week, 23.75 percent once in a month, 17.5 percent daily, 14.37 percent two or three times in a week, 11.25 percent rarely use, and 8.75 percent never use the OPAC. About 20.62 percent of the faculty members are using the college website once in a month, 20 percent daily, 17.5 percent two or three times in a week, 16.88 percent once in a week, 16.88 percent rarely uses, and 8.12 percent of the medical students never use the college website.

5.1 Relative frequency use of digital resources
In order to know the relative frequency in the use of the different electronic resources by the medical students, weightages of 5,4,3,2,1 and 0 are assigned to responses of daily, two or three times a week, once in a week, once in a month, rarely and never used respectively. Total weightage is calculated for each electronic resource. Mean Weightage is calculated by dividing the total weightage by the number of medical students included in the sample. Based on the Mean weightage the digital resources have been ranked.

The distribution of users according to their relative use of different digital resources, total weightage, mean weightage and ranks are given in Table 4.

<table>
<thead>
<tr>
<th>Digital Resources</th>
<th>Total weightages</th>
<th>Mean weightages</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD-ROM</td>
<td>497</td>
<td>3.11</td>
<td>4</td>
</tr>
<tr>
<td>Internet</td>
<td>547</td>
<td>3.42</td>
<td>3</td>
</tr>
<tr>
<td>E-mail</td>
<td>611</td>
<td>3.82</td>
<td>2</td>
</tr>
<tr>
<td>Online databases</td>
<td>346</td>
<td>2.16</td>
<td>8</td>
</tr>
<tr>
<td>Online journals</td>
<td>360</td>
<td>2.25</td>
<td>7</td>
</tr>
<tr>
<td>Search engines</td>
<td>612</td>
<td>3.83</td>
<td>1</td>
</tr>
<tr>
<td>online catalogue</td>
<td>443</td>
<td>2.77</td>
<td>6</td>
</tr>
<tr>
<td>college website</td>
<td>446</td>
<td>2.79</td>
<td>5</td>
</tr>
</tbody>
</table>

It is evident from table 4 that the medical students are mainly using search engines compared to other digital resources and it has got first rank. It is followed by e-mail, internet, CD-ROM, college website, online public accesses catalogue, online journals, and online databases, which have got the second, third, fourth, fifth, sixth, seventh, and eighth ranks respectively for their use.

5.4 **Purpose of using digital resources**

The distribution of medical students according to purpose of using digital resources is shown in Table 5.

Distribution of medical students according to their purpose of using the digital resources (n=160)
<table>
<thead>
<tr>
<th>Purpose</th>
<th>No of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>For communication</td>
<td>139</td>
<td>86.87</td>
</tr>
<tr>
<td>For research</td>
<td>84</td>
<td>52.50</td>
</tr>
<tr>
<td>To collect subject information</td>
<td>114</td>
<td>71.25</td>
</tr>
<tr>
<td>Upgrade general knowledge</td>
<td>81</td>
<td>50.62</td>
</tr>
<tr>
<td>For career development</td>
<td>63</td>
<td>39.37</td>
</tr>
</tbody>
</table>

It is evident from Table 5 that 86.87 percent of the medical students indicate that the digital resources are used for communication purpose, 71.25 percent to collect subject information, 50.62 percent upgrade general knowledge, 52.5 percent research purpose, and 39.37 percent of the medical students are using digital resources for their career development.

### 5.5 Learned to use digital resources

The distribution of medical students learned to use digital resources is shown in Table 6.

<table>
<thead>
<tr>
<th>Learned to use digital resources</th>
<th>No of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self study (reading books/journals, tutorials)</td>
<td>72</td>
<td>45.00</td>
</tr>
<tr>
<td>Family, friend or Colleague</td>
<td>57</td>
<td>35.62</td>
</tr>
<tr>
<td>Guidance from the library staff</td>
<td>66</td>
<td>41.25</td>
</tr>
<tr>
<td>Guidance from the departmental staff of computer Science</td>
<td>54</td>
<td>33.75</td>
</tr>
<tr>
<td>Formal courses</td>
<td>35</td>
<td>21.87</td>
</tr>
</tbody>
</table>

It is evident from Table 6 that 45 percent of the medical students are learning the necessary skills to use digital resources through self study (reading books/journals, tutorials etc), 41.25 percent learned through the guidance from library staff, 35.62 percent...
through family, friend or colleague, 33.75 percent guidance from the departmental staff of computer science, and 21.87 percent of the medical students are learning to use digital resources through formal courses.

5.6 Adequacy of information in digital resources

The distribution of medical students according to the adequacy of information in digital resources is shown in Table 7.

<table>
<thead>
<tr>
<th>Opinion</th>
<th>No of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>79</td>
<td>49.37</td>
</tr>
<tr>
<td>Some time</td>
<td>63</td>
<td>39.38</td>
</tr>
<tr>
<td>Never</td>
<td>18</td>
<td>11.25</td>
</tr>
<tr>
<td>Total</td>
<td>160</td>
<td>100.00</td>
</tr>
</tbody>
</table>

It is evident from Table 7 that 49.37 percent of the medical students indicate that the information available in the digital resources is always adequate, 39.38 percent indicate some time, and 11.25 percent indicate the information available in the digital resources is never adequate.

5.7 Barriers in accessing the digital resources

The distribution of medical students according to barriers in accessing the digital resources is shown in Table 8.

<table>
<thead>
<tr>
<th>Barriers</th>
<th>No of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of training</td>
<td>81</td>
<td>50.62</td>
</tr>
</tbody>
</table>
Lack of time       66       41.25
Too much information retrieved 63       39.37
Lack of IT knowledge     38       23.75
Limited accesses to computers 59       36.87

It is evident from the Table 8 which shows the opinion of the medical students regarding barriers in accessing the digital resources. Majority (50.62%) of the medical students stated that ‘lack of training’ is the main impediment to use digital resources, 41.25 percent ‘lack of time’, 39.37 percent ‘too much information retrieved’, 36.87 percent ‘limited accesses to computers’, and 23.75 percent showed ‘lack of IT knowledge’ is the main barrier to use digital resources.

5. Results and Discussion

Most of the medical students (55.63%) are familiar with the usage of digital resources. About 24.37 percent of the medical students are using the computer two or three times a week, 23.75 percent daily, and 5.63 percent are never used. Most of the medical students 25%, 33.13%, 38.13%, 36.87%, and 21.25% are using CD-ROM, Internet, E-mail, Search engines, and College website ‘daily’ respectively. However, 25 percent of the medical students are using online databases, online public accesses catalogue ‘once in a month’, 18.75 percent of the medical students are using online journals ‘rarely’. Most of the medical students are mainly using search engines compared to other digital resources. Online journals and online databases are less using compared to other resources being used rarely vis-à-vis other resources. Majority of the medical students (86.87%) are using digital resources for enhancing and upgrading their communication purposes. Majority of the medical students (45%) opined that they were acquiring skills to use digital resources through ‘self-study’ method (reading books/journals, tutorials etc). Majority of the medical students (49.37%) opined that the information available in the digital resources is always ‘adequate’. Majority (50.62%) and (41.25%) of the medical students have expressed ‘lack of training’ and ‘lack of time' are the main problems in securing access to digital resources.

6. Conclusion

The development of medical e-resources grossly depends on the application of ICT technologies. Librarians have a better role to play in the process. They have to coordinate the efforts of all sections of medical or health system. Librarians are better professionals to coordinate different sections of the communication system, as they are familiar with the information work as information workers. In web based environment, role of library and information professionals have changed altogether, their role is not just as custodian of books but to teach the students how
to use the existing resources, frequently organizing workshops, book talks, debates, develop web based contents and provide web based service to its client. Library professionals cannot ignore the changes in the field of ICT and redefining as well as re-engineering the library and information services is the need of the hour. Information professionals must change the way of managing documents with latest tools and technologies. Professionals must have competencies to create web pages, how to build up institutional repository. Library staff has to give instruction, training to users to promote optimum use of information sources.

Suggestions

Based on the detailed study and its outcome, the following suggestions are recommended to improve the use of digital resources among the medical students.

1. With the increasing influx of electronic resources into libraries the user orientation programmes should be implemented in regard to digital resources.
2. Awareness levels should be increased for maximizing the usage of online journals for procuring the current and required information.
3. More computer terminals should be installed in libraries for facilitating easy and quicker access to digital resources.
4. Budgetary resources should be increased gradually for strengthening digital resources in libraries.
5. The library should conduct regular evaluations and assessments to determine the effectiveness of the digital resources in meeting information needs of the users.

References

1. Biradar (B S), Rajashekar (G R) and Sampath Kumar (B T) (2006). A study of Internet usage by students and faculties in Kuvempu University. Library Herald. 44(4); pp 283-294.
2. Mishra (O P), Yadava (Neelam) and Bisht (Kamini) (2005). Internet Utilization Pattern of Undergraduate Students. University News. 43(13); pp. 8-12.


Follow us on: IRJLIS, Facebook, Twitter