

Usage of Wi-Fi Service among Users' of the Postgraduate Institute of Medical Education and Research Library, Chandigarh

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ABSTRACT

In this era of information accessing Internet has become most powerful and fast growing segment in library services. Keeping in view the users needs, the libraries provide new technology-based services to them. To know the utilisation of these new facilities/services among the library users, periodic evaluation is a must for these services. This study is an attempt to analyse the usage of Wi-Fi technology at Dr Tulsi Das Library of Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh by its users. The parameters included the purpose, and duration of time and preferences to access the Wi-Fi service. This study also sought users' opinions regarding its beneficiality and problems faced by them.

Key Words: Wi-Fi, PGIMER, Internet, information access, library services

1. INTRODUCTION

Recent advances in networking technology have changed the way to communicate the information. Every day new technologies are emerging in networking field and libraries are adopting these technologies for the benefits of the users. Information technology has unfolded the technical capability to produce and disseminate information. Information communication technology (ICT) has not only the potential to transmit information at greater speed and precision but also the capacity to deal large amount of diversified information. Medical science is the field where clinical and non-clinical experiences continue to grow very fast. The explosion of this scientific information has evolved many more challenges for information providers. Internet has played a major role in handling and dissemination of information. Over the past years, Wireless Fidelity (Wi-Fi) has popularised and become the dominant networking technology. Earlier networking was done through wiring but now various light and wave emitting technologies are in use. Wi-Fi is one of such emerging technologies, with the help of which, communication between computers can be done without cables. Wireless Internet access uses radio frequency signals to exchange information between a computer and the Internet. Wireless local area networks enable network users with laptops or devices equipped with wireless

network interface cards to remain constantly interconnected while roaming within the range of a base station. Fixed access points can also be interconnected with wide area networks, such as the Internet or intra-corporate local area networks.

2. REVIEW OF LITERATURE

Few studies have been done in the past on the planning, implementation, application of Wi-Fi in libraries. Insight Media Internet limited has conducted the evaluation and market research of Wi-Fi services in UK public libraries in 2007 and 2009.¹⁻² This survey was an insight about the type and scale of implementation, type of service, its functionality and benefits and considerations of providing Wi-Fi services among one quarter of UK public libraries already providing such services, by one quarter of public libraries currently planning to provide such services, and the remaining half not currently actively planning Wi-Fi. British Library (BL), UK³ has conducted a survey to understand visitors' needs for wireless (Wi-Fi) connectivity and found an overwhelming demand for the services³. To satisfy the users' demand, BL then launched a Wi-Fi service on trial base through HP and again conducted the survey at the end of the trial period and found a high level of satisfaction with the service due to its ease of use and excellent performance. Hugh and Margaret⁴

conducted an online survey of students and employees of Manmouth university to gauge the reaction to wireless laptop lending program and wireless access available in library. Results showed the more response for wireless access in library and across campus as well as their need to log on to network with their own laptops.

Among the Indian papers Kumar, Choudhury and Shah⁵ studied the common standards of Wi-Fi technology, its cost involvement, hotspots in India and abroad and its applications particularly in library and information centres and found that readers found Wi-Fi services are very useful because it facilitated access of library OPAC and Internet in any corner of library. Similarly for library staff there is no maintenance of cable and coordination with other sections like acquisition, circulation, technical, etc. Dhanasegaran and Kesavan⁶ studied the issues related to the characteristics and architecture of Wi-Fi, consideration of various factors while planning for Wi-Fi, process of its implementation, applications and benefits of Wi-Fi in libraries.

3. ABOUT PGIMER LIBRARY

The Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, was founded in 1960 as a centre of excellence. The main aim of PGIMER is to provide high quality patient care; attain self-sufficiency in postgraduate medical education to meet the country's need for highly qualified medical professionals in all medical and surgical disciplines; provide educational facilities for the training of personnel in all important branches of health activity; and undertake basic community-based research. PGIMER library known as Dr Tulsi Das Library plays a very significant role in the research and academic activities of the institute. The library is well equipped with all latest technology and provided all modern facility and ICT based services to its readers. The library is subscribing to many online databases like Science Direct, Wiley Interscience, MD Consult, SCOPUS, Karger, and is a member of ERMED Consortia. The library is using hi-tech technologies like electronic surveillance and security system (using RFID tags for security and library operations). All the computers of the library are connected through Local Area Network (LAN).

The library is providing many ICT-based service like e-mail alert, Internet, online reference service, and the Wi-Fi service to its users. Wireless local area networks enable the library users while roaming within the range of router installed in the library. Library uses Broadband Business Plan 5000 of BSNL with 1 Mbps internet connection plan for PC's and Wi-Fi, one lease line for website, 10 access points for user to search web. Three routers of Wi-Fi are placed at ground, 1 and 2 floor. Modem D-link of 1 Kbps for landline Internet connection

and for wireless modem is netgear wireless G54 router WGR 614 is being used for accessing Wi-Fi by unlimited number of users.

4. OBJECTIVE OF THE STUDY

The main objective of the study was to evaluate the use of Wi-Fi service among the users of PGIMER library in their research work and studies. The other objectives were: (i) to study the frequency and general purpose of users to visit the library, (ii) to study the purpose of using Wi-Fi service, (iii) to identify the users preferences and duration of time for accessing Wi-Fi service, (iv) to study its impact on the users visit to library, and (v) to explore the benefits and problems faced by the users.

5. METHODOLOGY

The study was conducted through a structured close questionnaire distributed among the 100 library users who generally use Wi-Fi facility in library premises. Library users includes Faculty (Professors, Associate Professors, Assistant Professors), Senior Residents, Demonstrators, Junior Residents, Postgraduate Junior Residents, PhD scholars. Paramedical staff (Technicians, Nursing staff, Pharmacists, Operation Theatre Assistants, etc.), MSc, BSc students of various streams. But the survey was conducted among the Senior Residents, Junior Residents, and PhD scholars only who visited the library frequently. Dully filled questionnaires were received from all 100 respondents and the collected data was then analysed.

6. ANALYSIS AND RESULTS

6.1 Frequency and Purpose of Users' visits to the Library

Analysis of responses showed that though the readers came to the library in large number but their frequency to visit the library varied. (Fig. 1). Sixty-four per cent users visited the library once in a day followed by 26 per cent who visited 2-3 times in a day, 9 per cent who visited once in week, and 1 per cent who visited once in a month only.

Figure 2 shows that 50 per cent of users visited library to use Wi-Fi facility followed by 25 per cent for reading, 10 per cent for using Internet, and 5 per cent each for consultation, issue-return, and for photocopy and other services.

6.2 Influence of Wi-Fi Facility on Users' visits to the Library

Ninety-nine per cent of users were of the opinion that Wi-Fi facility in library has influenced their visit to the

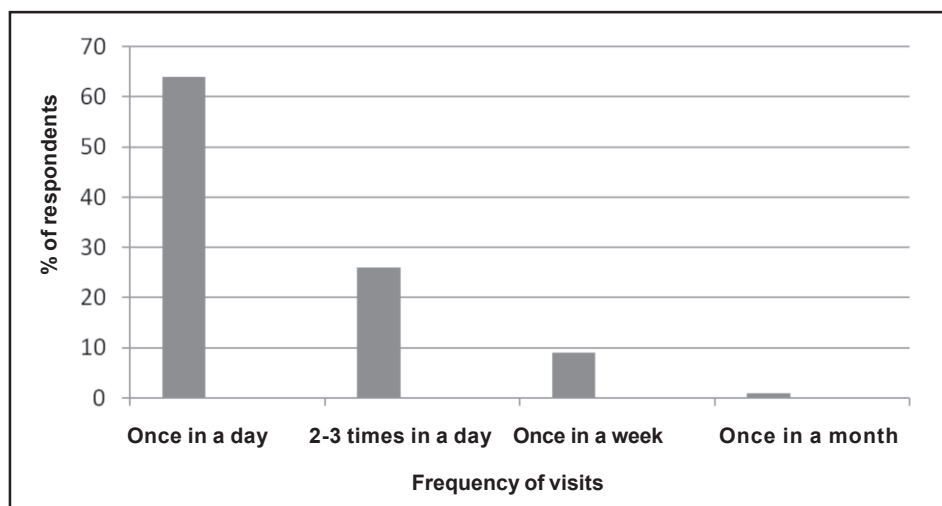


Figure 1. Frequency of users visits to the library.

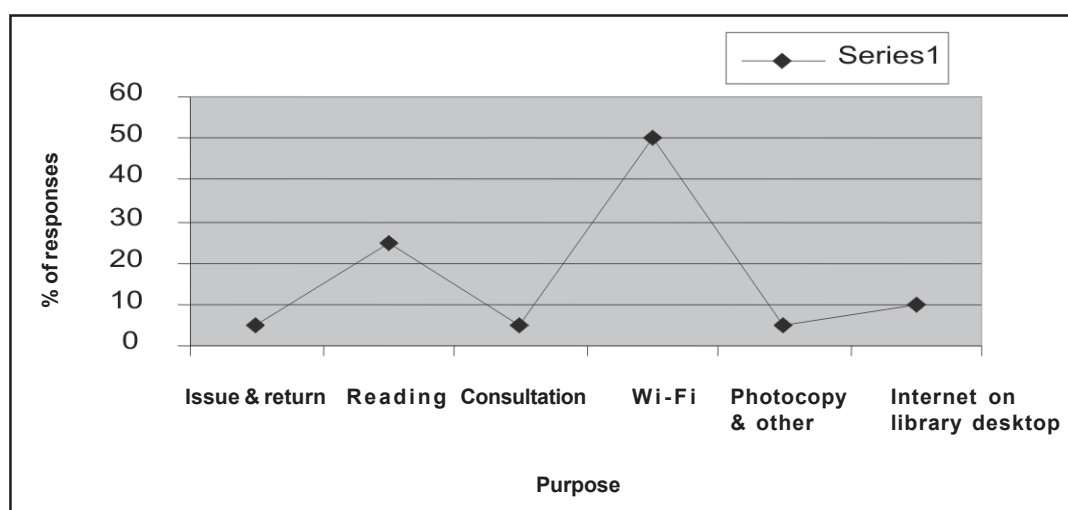


Figure 2. Purpose of users' visits.

library. Only 1 per cent of users were of the opinion that there was no effect on their visit (Table 1). Ninety-nine per cent of the respondents are of the opinion that they have started visiting the library more frequently after Wi-Fi facility was started.

Table 1. Influence of Wi-Fi facility on users' visits

Users' view	Number of responses	
	Yes	No
Influence on the user's Visit	99	1
Change of frequency of their visit	90	10

6.3 Users' Preference to access Wi-Fi

Analyses of users' preferences to access Internet either from library through Wi-Fi facility or from Hostel or Department showed that 70 per cent of respondents preferred to access the Internet through Wi-Fi facility from the library premises as against 20 per cent respondents who prefer to use their own Internet

connection at hostel. 10 per cent respondents preferred from their respective departments. (Fig. 3)

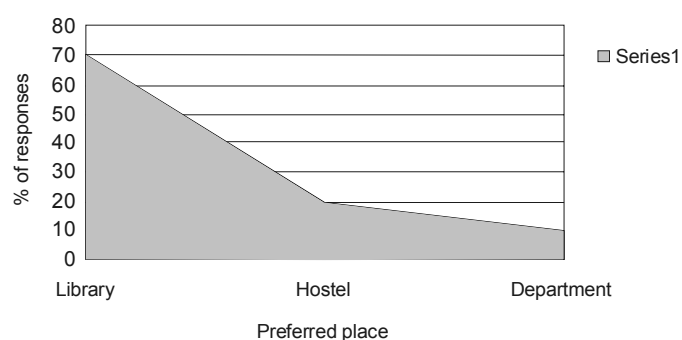


Figure 3. Preferred place for users to access Wi-fi.

6.4 Duration and Frequency of Use of Wi-Fi Among Users

Analysis of responses regarding frequency of use of Wi-Fi facility among users witnessed that 70 per cent of

respondents made use of this service daily as compared to 16 per cent and 14 per cent of users who avail this service monthly and weekly, respectively (Table 2). Considering the time spent by users to access this facility, 44 per cent of respondents spent 1-2 h followed by 22 per cent of respondents who spent 3-4 h and 10 per cent spent 5-6 h. Only 24 per cent of respondents accessed this facility whenever they got time.

Table 2. Time spent by users to access Wi-Fi

Frequency of use	Number of responses	Duration of time spent	Number of responses
Daily	70	1-2 h	44
Weekly	14	3-4 h	22
Monthly	16	5-6 h	10
		Whenever get time	24

6.5 Purpose of Using Wi-Fi Among Users

Figure 4 shows that the main purpose among 75 per cent of respondents was to avail this facility for searching articles/research papers through online databases. Use of this facility for checking e-mail/searching jobs was common for only 20 per cent of respondents. For remaining 5 per cent the purpose was to search other information.



Figure 4. Purpose to access Wi-fi.

6.6 Benefits and Problems of Wi-Fi

Analysing the responses regarding benefits of this facility, it was showed that all the respondents were of the opinion that the provision of Wi-Fi facility has been benefitted their research work (Table 3).

Responses to the problems faced by the users in accessing this facility showed that, 50 per cent of the respondents were of the opinion that the facility has slow

Table 3. Wi-Fi's beneficiality and type of problems in its accessing

Is Wi-Fi beneficial?	Number of responses	Type of problems faced	Number of responses
Yes	100	Limited connectivity	15
No	0	Frequent disconnectivity	35
Fine	0	Slow speed	50

speed, 35 per cent respondents faced the problem of frequent disconnectivity and 15 per cent faced the problem of limited connectivity.

7. CONCLUSION

With the start of Wi-Fi service in Dr Tuulsi Das Library, PGIMER, the frequency of users visiting the library has increased. The service has undoubtedly a beneficial impact on the research work and study of faculty, research scholars, and students. They have easy, quick, and timely access to research material. Though the service has benefited many but still has some limitations like disconnection, limited access, and slow speed. So there is an immediate need to improve the connectivity and increase the number of desktop terminals.

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