

Use of Web Resources by Dental Science Professionals in Karnataka

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Abstract:

Use of Internet and accessing the web resources is as common as following our routine habits in day to day life. The present study makes an attempt to assess the extent of usage of various web resources, the study focuses on exploring the purposes and modes of information seeking on web resources by dental science professionals. The target populations for the study are the dental colleges in Karnataka. The researchers have been able to distribute 868 questionnaires to the sample population, however only 623 (430 faculty members and 193 Post-Graduate students) duly filled in questionnaires were obtained, which accounts of 71.74 percent of the total population selected. The information commodity especially in the discipline of medical science is sought to have a higher extent to meet the need of academic and research endeavors. It is found that the dental professionals (Faculty and Teachers) of this field in the subject rely upon up-to-date and scholarly publications to meet the challenges in today's competitive world.

Keywords: Internet, Information Seeking Behaviour, Web-Resources, Dental Science Professionals, Information search, Information literacy model

Introduction

The present era is known as the era of information and knowledge revolution. Due to these very reforms the library users have become familiar with the access and retrieval of electronic information. The enormous information available on web has affected information seeking and search patterns of individuals. Information resources, in large varieties scattered at different locations have been compacted on one single platform. The types of information and their medium which present them have become manifold and multifarious, offering the medical professionals

tremendous opportunities to choose. The information in the academic and research environment, has become an essential commodity to develop appropriate means in organizing and facilitating quick access to relevant Internet resources.

Information seeking and searching behavior

In consonance with the developments in web-based environment, the information professionals have been studying and updating the models of information seeking behaviors. Cutrell and Guan (2007)¹, pointed out that, "Understanding of how users search for information on the web has enormous practical implications for both commercial and academic endeavors." Allen (1997)², recommends to understand the information seeking behavior for designing and building effective information systems, whereas Fourie (2002)³, suggests that information professionals need to understand and refine the knowledge of web information spaces, design, maintenance and training-related issues in libraries. Ultimately, Wilson's (2000)⁴ studies have suggested that the understanding of information professionals is crucial to help users in meeting their information needs online effectively. Information searching behavior refers to the way people search for and utilize information. Wilson (2000)⁵ mentions that the information seeking behavior is the micro-level of behavior employed by the searcher in interacting with information systems of all kinds, be it between the seeker and the system, or the pure method of creating and following up on a search.

Objectives of the study

The specific objectives of the study are:

1. To assess the extent of usage of various aspects of web resources by the dental science professionals in Karnataka.
2. To evaluate the purposes and modes of information seeking by using web resources by dental science professionals

Methodology

The data was gathered using questionnaires, personal interviews and/or focus groups. The questionnaire included both qualitative and quantitative data on feelings, attitudes, ideas, opinions and viewpoints. During the survey semi-structured interviews were conducted with librarians of the respective colleges. This mixed approach balanced the broader, more

prescriptive survey questions, providing participants with an opportunity to give more spontaneous and in-depth accounts of their information seeking and searching behaviour. In a way, the interviews sought to fill the gap and reduce any shortcomings of user's responses. Questions were carefully posed while interviewing, sometimes using the telephone, or on chat using the Internet. This interaction while interview was for specific purposes associated with the information seeking behavior. Some of the interactions have attracted a lot of interest and is being widely used to obtain data about the behavior and viewpoints of dentists, followed by pre-defined questions using a mixture of "open" and "closed" questions for face-to-face interview. Observation was limited to the infrastructure facilities in the library. The user's interaction with the library staff and the available reading materials in the library has been considered in observation. The facts, events and responses at the time of observation were systematically recorded to project the valid findings.

The target population of this study consists of the faculty and postgraduate students in the dental colleges in Karnataka. Of the 43 Dental Colleges, 12 were taken up for the study. As of 2016-17, there are a total of 1155 faculty and Post-Graduate students in Karnataka. The researchers have been able to distribute 868 questionnaires to the sample population, however only 623 (430 faculty members and 193 Post-Graduate students) duly filled in questionnaires were obtained, which accounts of 71.74 percent of the total population selected. Among the Post-Graduate students, the sample population was only limited to the final year students.

To fairly generalize the results of the study the sampling was proportionally stratified with representative cases for a qualitative approach. This represented the use of different types of resources demarcated for the study, with higher probability for the investigation, both in the number of institutes and the people. The questionnaire was distributed to the faculty and students (final year) belonging to all the specialty departments in the dental colleges in Karnataka, selected on the base of the academic, research and patient care facilities in the dental hospitals conducting teaching programmes. Further, it also considered the availability of well-developed infrastructure facilities for conducting Post-Graduate academic programmes. The dental colleges having such facilities and are in existence over 20 years have been considered for the present study.

The collected data were compiled and analyzed using the SPSS 16.0 (2007) for Windows statistical software. All the information could not be analyzed quantitatively; some of the responses to the open-ended questions consisted of lengthy descriptions, in such cases to retain the respondent's own views, qualitative content analysis was employed for data obtained from responses to open-ended questions and interviews, by categorizing the content and similar paraphrases were bundled and summarized.

Results

Table 1 Access to scholarly literature

Responses		Category		Total
		PG	TF	
Yes	F	172	400	572
	%	89.10	93.00	91.80
No	F	21	30	51
	%	10.90	7.00	8.20
Total	F	193	430	623
	%	100	100	100

CC= .066; P=.100

The above table reflects that, 89.10 percent Post-Graduate students and 93 percent Teaching faculty from dental science professionals indicate 'Yes'. Whole response as a 'Yes' consists of 91.80 percent which means "they are aware of the scholarly information available on Web and they do use these scholarly literature". The Contingency Coefficient value obtained is found to be non-significant (CC= .066; P=.100) indicating that the pattern of response given by the teaching faculty and Post-Graduate students is the same.

Table 2: Access to content subscribed, free and open access

Responses		Category		Total
		PG	TF	
Free and open access	F	53	106	159
	%	30.80	26.50	27.80

Subscribed	F	65	158	223
	%	37.80	39.50	39.00
Both	F	36	100	136
	%	20.90	25.00	23.80
Do not know	F	18	36	54
	%	10.50	9.00	9.40
Total	F	172	400	572
	%	89.10	93.00	91.80

CC= .059; P=.571

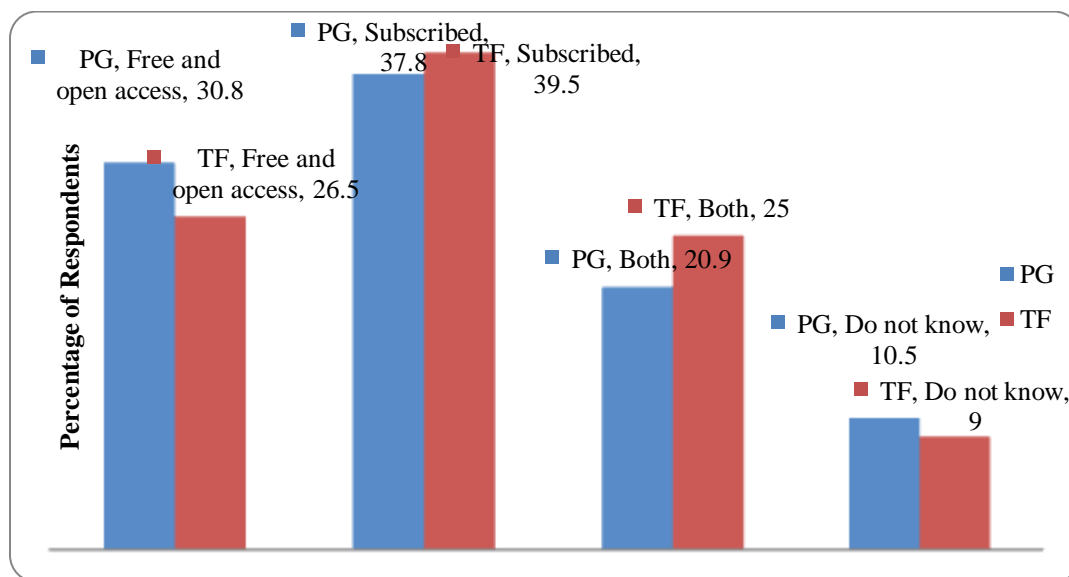


Figure 1. Access to content subscribed, free and open access

The table 2 reflects the response to the statement “library subscribed to free content on Internet” and the most indicated response was towards ‘Subscribed’ (39%) followed by ‘Free Content’ (27.8%). The least response indicated was ‘Do not know’ (9.4%). The Contingency Coefficient value obtained is found to be non-significant (CC= .059; P=.571) indicating that the response pattern given by both set of respondents was statistically the same leading to a non-significant association.

Table 3: Time spent in each session of Internet browsing

Maximum time spent on the Internet		Category		Total
		PG	TF	
Up-to one hour	F	85	220	305
	%	44.00	51.20	49.00
More than one hour	F	48	138	186
	%	24.90	32.10	29.90
More than two hours	F	41	48	89
	%	21.20	11.20	14.30
More than three hours	F	19	24	43
	%	9.80	5.60	6.90
Total	F	193	430	623
	%	100.00	100.00	100.00

CC= .162; P=.001

The statement “maximum time spent on the Internet” with the help of above table shows that, the most indicated response was towards ‘up to one hour’ (49.00%) followed by ‘more than one hour’ (29.90%). The least 6.90 percent for with ‘more than three hours’ was response. The Contingency Coefficient value obtained is found to be non- significant (CC= .162; P=.001). Unlike in the above tables the “Internet Browsing” is more prominent among students the as evidently the students spend more hours for browsing the Internet than the teaching faculty. Hence, it might be the effect of the younger generation while the teachers depend basically on the spending quality time spending over on the Internet browsing.

Table 4: Frequency of access to Internet

Frequency		Category		Total
		PG	TF	
Always	F	66	72	138
	%	34.20	16.70	22.20
Very often	F	73	172	245
	%	37.80	40.00	39.30
Often	F	41	144	185

	%	21.20	33.50	29.70
Seldom	F	12	40	52
	%	6.20	9.30	8.30
Never	F	1	2	3
	%	0.50	0.50	0.50
Total	F	193	430	623
	%	100.00	100.00	100.00

CC= .203; P=.000

It is evident from the table that the frequency of usage was more by students than the teaching faculty. The respondents on “how frequently do you login to the Internet.” The most responses reflected as ‘Very Often’ with (39.3%) followed by ‘Often’ (29.7%), ‘Always’ (22.2%) and ‘Never’ (0.50%) was the least response. The Contingency Coefficient value of association between respondents and their responses is highly significant (CC= .203; P=.000).

Table 5 Purpose of accessing Internet services

Purpose	Responses		PG	TF	Total
Teaching/learning	Daily	F	120	186	306
		%	62.2	43.3	49.1
	Weekly	F	60	180	240
		%	31.1	41.9	38.5
	< month	F	9	52	61
		%	4.7	12.1	9.8
	Rarely	F	3	12	15
		%	1.6	2.8	2.4
	Never	F	1	0	1
		%	0.5	0	0.2
Test statistics CC=.194; P=.000					
Research	Daily	F	56	108	164
		%	29	25.1	26.3
	Weekly	F	79	178	257

		%	40.9	41.4	41.3	
	< month	F	29	78	107	
		%	15	18.1	17.2	
	Rarely	F	27	56	83	
		%	14	13	13.3	
	Never	F	2	10	12	
		%	1	2.3	1.9	
Test statistics CC=.067; P=.597						
Clinical works	Daily	F	60	122	182	
		%	31.1	28.4	29.2	
	Weekly	F	85	158	243	
		%	44	36.7	39	
	< month	F	29	96	125	
		%	15	22.3	20.1	
	Rarely	F	17	44	61	
		%	8.8	10.2	9.8	
	Never	F	2	10	12	
		%	1	2.3	1.9	
	Test statistics CC=.106; P=.130					

Table 5 reflects “What is the purpose of seeking and searching for information on Internet”. In the aspect of “teaching”, 49.10 percent responded on ‘Daily’ basis, followed by ‘Weekly’ (38.5%) and the least responses collected as ‘never’ with (0.2%). The Contingency Coefficient test revealed a significant association with 0.194% and significant level of .000, where we find that students were using the Internet for teaching/learning aspect more than the teaching faculties.

In terms of Seeking and Searching Information on Internet for ‘Research’ purpose, the most observed response was ‘Weekly’ (41.3%), followed by ‘Less than a month’ (17.2%), while the least response was found as ‘never’ with (1.9%).

For “Clinical Works”, the most observed response was ‘Weekly’ (39%), followed by ‘Daily’ (29.2%) and ‘Less than a month’ (20.1%). For both research and clinical works, the Contingency Coefficient revealed a non-significant association between responses and the respondents, indicating a similarity in the response pattern by selected students and teaching faculty.

Table 6: Choice of media (Mode)

Responses		Respondents		
		PG	TF	Total
Print copy	F	20	60	80
	%	10.40	14.00	12.80
Electronic copy	F	15	52	67
	%	7.80	12.10	10.80
Both: Print & Electronic	F	158	318	476
	%	81.90	74.00	76.40
Total	F	193	430	623
	%	100	100	100
Test statistics	CC=.087; P=.093			

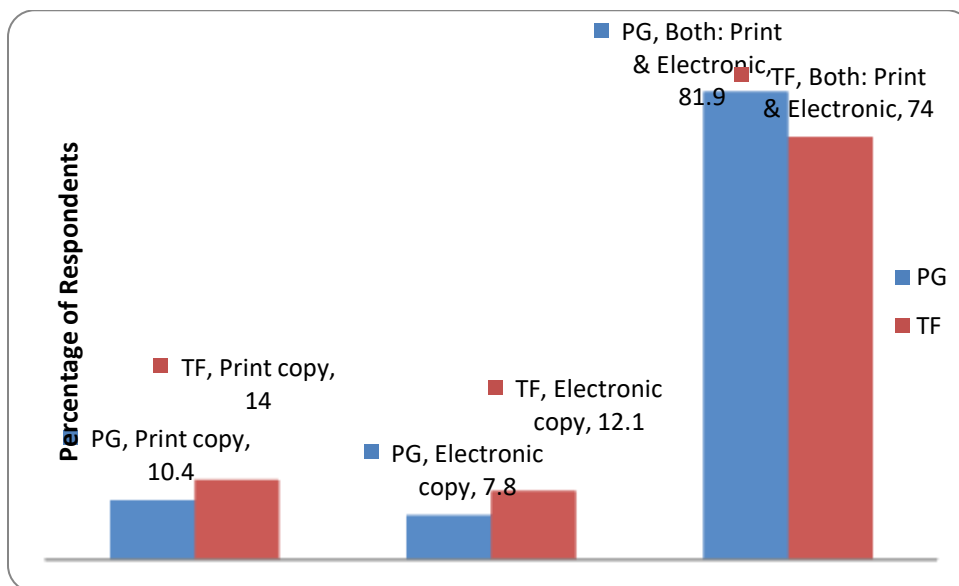


Figure 2 Choice of media (Preference)

Table 6 shows that among 623 dental science professionals, the most occurred response for the issue “If you are given the option, which media would you prefer to obtain journal articles/reference materials” was ‘both print and electronic media’ with (76.4%) followed by ‘print copy’ (12.8%). The Contingency Coefficient test revealed a non-significant association with .087 value and significance level of .093 indicating a similarity in the response pattern of both respondents.

Table 7: Use of RGUHS Consortia

Response		Category		Total
		PG	TF	
Yes	F	108	292	400
	%	56.00	67.90	64.20
No	F	85	138	223
	%	44.00	32.10	35.80
Total	F	193	430	623
	%	100.00	100.00	100.00

CC= .114; P= .004

Among 623 respondents, responded to the statement “Accessing the journals from RGUHS consortia”. On an average of 64.2 percent indicated that they do access. 56 percent Post-Graduate students and 67.9 percent teaching faculty agreed with ‘Yes’ to the statement. Here the Contingency Coefficient test shows a significant association with .114 and significant level of .004. With this revelation we found that the teaching faculty accessed journals from RGUHS consortia significantly more than selected set of students (Post Graduates).

1.6 Conclusion

The information as commodity in the disciples of medical science is expected of a higher extent to fulfil or satisfy their academic and research endeavors. Of late, the trend or pattern in seeking information is gaining importance. As the libraries are expected to extend need based services within budgetary provisions and further, it is also the fact that the dental professionals and teachers in the subject rely upon up-to-date and scholarly publications to meet the challenges in today’s competitive world. Searching electronic information resources on Internet, both open

access and subscription based has become a necessity today in order to overcome the professional problems in the day-to-day the academic activities.

The existence of appropriate informational infrastructure is also an essentiality. The information professionals and librarians look for various means and methods, as well as, tools and techniques to provide access to scholarly information which is relevant, precise and authoritative. Hence, the studies in the sphere of Information seeking and Information search behaviors will open a number of alternatives to effective services to the readers in libraries.

References

1. Cutrell, E. and Guan, Z. (2007). What are you looking for? An eye-tracking study of information usage in Web search. Retrieved from <http://ftp.research.microsoft.com/pub/tr/TR-2007-01.pdf>
2. Allen, B. (1997). Information needs: A person in-situation approach. Retrieved from <http://projects.ischool.washington.edu/fisher/pubs/ISIC.1997.pdf>.
3. Fourie, I. (2002). Learning from web information seeking studies: some suggestions for LIS practitioners. *The Electronic Library*, 24 (1), 20-37.
4. Wilson, T. D. (2000). Human information behavior. Special issue on *Information Science Research*, 13 (2), 49-55.
5. Wilson, T. D. (2000). Social dimensions of information technology: Issues for the new millennium. Hershey, PA: Idea Group Publishing, *International Journal of Information Management*, 20, 491-494.