

Barriers of web use in terms of information access, retrieval and application by students, teachers, scientists and extension personnel

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ABSTRACT

The present study is webometric analysis of Indian agricultural universities. To study the barriers a sample was drawn from students, scientists and teachers of Professor Jayashankar Telangana State Agricultural University and extension personnel of State Department of Agriculture, Telangana. A sample of 240 respondents was selected for the present study which included students (80), teachers (60), scientists (60) and extension personnel (40). The relevant data were collected using interview and questionnaire methods. The barriers were discussed in detail with the respondents' point of view in terms of access, information retrieval and application. Majority of the respondents expressed lack of speed of internet connectivity, lack of update information presented on the web, authenticity of the information, showing untangle for few websites etc.

Keywords: Barriers; information; web; access; information retrieval; application

INTRODUCTION

Presently internet is an insistent part of human life. As the internet is growing day by day online users are also escalating. The interesting information available on the internet has got lot of problems in retrieving. Every user spends most of his/her time on the internet and their behavior is different from one another (Anitha and Isakki 2016).

The World Wide Web (WWW) has now become one of the main sources of information on academic and research activities and therefore is an excellent platform to test new methods of evaluating webometric activities.

The web is an important medium of research and education in many parts of the world. In the face of a growing demand for education and fundamental changes in higher education in most countries the increasing value gets the creative coordination of world universities on the basis of a constant exchange of experience among them. The easiest and the effective way to operational exchange of information is publication on the website.

Sharma et al (2008) studied the usage pattern of internet by the teachers and research scholars of Kurushetra University and found that 64.16 per cent respondents reported about privacy problems while accessing information whereas 60.83 per cent were fully satisfied with the Internet services available at the University.

Kumar (2010) in a study on faculty use of internet services at a university of agriculture and technology observed that most users faced some problems such as lack of knowledge of important websites in subject areas. A large number of internet users were not satisfied with the infrastructure facilities available in the library. Facilities such as number of terminals, multimedia facilities and printers were inadequate for the fulfillment of needs of the users.

Sharma et al (2011) in their study on internet usage by the faculty members and the students in professional colleges in Mathura region found that most of the faculty members and students in various disciplines faces slow internet access speed and difficulties in finding relevant information.

Sife (2013) studied web search behaviour of postgraduate students at Sokoine University of Agriculture, Tanzania and found that slow internet connectivity was a serious constraint (85.10%) followed by restricted downloading of e-resources (69%), poor quality of retrieved information (35.10%), inadequate search skills (31.20%) and limited access to computers (29.50%).

Kumar (2016) working on internet literacy and usage patterns to access e-resources by Assam University library users found problems faced by the 257 e-resource/web resource users viz limited working hours, lack of adequate number of computers, less speed, lack of infrastructure facilities, frequent power failure, problem of downloading articles and over-searching.

METHODOLOGY

Descriptive research design was adopted in the present investigations. To study the web use behavior the sample was drawn from amongst students, teachers and scientists from Professor Jayashankar Telangana State Agricultural University and extension personnel from State Department of Agriculture, Telangana.

A sample of 240 respondents was selected for the present study which included students (80), teachers (60), scientists (60) and extension personnel (40). The relevant data were collected using interview and questionnaire methods. The data were analysed using frequency and percentage.

RESULTS and DISCUSSION

Problems faced by the students (Table 1)

Barriers of web use in terms of access: Majority (81.25%) of the students expressed 'lack of high speed internet connectivity' as a major problem followed by 'sometimes the service provider may not allow the sites in the web hanged by untangled' (57.50%) and 'lack of proper knowledge about few online websites' (53.75%).

Barriers of web use in terms of information retrieval: Majority (68.75%) of the students expressed that 'unavailability of full length articles' was a major problem followed by 'not providing need-based information' (52.50%).

Barriers of web use in terms of application: Majority (63.75%) of the students expressed the 'different websites show different data (quantitative)' as a major problem followed by 'some of the agricultural websites offer agricultural information based on compulsory registration or membership' (51.25%).

Though university had been providing internet facility, many students expressed the problem related to the speed of the internet and there was a frequent interruption in internet connectivity. There were many online resources but still students could not get full access to the full length articles. The reason for this might be that the authors of those articles might have kept privacy. There was also a problem related to statistical data as many websites showed different data and the reason for this might be that sources of information were different. It is therefore necessary that there should be an individual government organization to display only accurate data.

Problems faced by the teachers (Table 2)

Barriers of web use in terms of access: Majority (71.67%) of the teachers expressed 'lack of proper internet connectivity' as a major problem followed by 'most of the websites not providing regular updated information' (63.33%).

Barriers of web use in terms of information retrieval: Majority (65.00%) of the teachers expressed 'slow retrieval of information' as a major problem followed by 'occasionally keywords are not providing any content' (53.33%).

Barriers of web use in terms of application: Majority (58.33%) of the teachers expressed 'lack of authenticity of information' as a major problem followed by 'poor quality of information' (50.00%).

Majority of the teachers expressed the problem of proper internet connectivity; most of them were unaware of the online e-resources' passwords and slow retrieval of information due to poor internet connectivity. To cope up with their regular job and other works like writing articles, projects etc they needed updated information which was lacking in most of the sites.

Table 1. Problems faced by the students in terms of access, information retrieval and application (n= 80)

Problem	f	%	Category rank	Overall rank
Barriers of web use in terms of access				
Lack of high speed internet connectivity	65	81.25	I	I
Lack of uninterrupted power supply	25	31.25	VII	XIII
Content not available in local language	17	21.25	IX	XVII
Unable to access the paid websites	39	48.75	IV	VIII
Lack of proper knowledge about few online websites	43	53.75	III	V
Lack of update information on websites	38	47.50	V	IX
Unable to access as many of the agricultural websites being for registered users only	29	36.25	VI	XII
Sometimes the service provider may not be allowing the sites in the web; especially in some institutions where they are hanged by untangled	46	57.50	II	IV
Lack of compatibility of web content with screen readers	21	26.25	VIII	XV
Barriers of web use in terms of information retrieval				
Unavailability of full length articles	55	68.75	I	II
Lack of visibility of information on website	24	30.00	III	XIV
Not providing need-based information	42	52.50	II	VI
No development of successful search strategies	19	23.75	IV	XVI
Barriers of web use in terms of application				
Some of the agricultural websites offering agricultural information based on compulsory registration or membership	41	51.25	II	VII
Different websites showing different data (quantitative)	51	63.75	I	III
Many of them being private operated, hence reliability posing problem	32	40.00	IV	XI
Sources of information not provided	35	43.75	III	X

Table 2. Problems faced by the teachers in terms of access, information retrieval and application (n= 60)

Problem	f	%	Category rank	Overall rank
Barriers of web use in terms of access				
Lack of proper internet connectivity	43	71.67	I	I
Lack of uninterrupted power supply	21	35.00	VII	XIII
Lack of awareness about updated passwords	32	53.33	III	V
Unable to access the paid websites	29	48.33	IV	VI
Lack of proper knowledge about few online websites	26	43.33	VI	IX
Most of the websites not providing regular updated information	38	63.33	II	III
Lack of awareness on e-learning sites	27	45.00	V	VIII
Barriers of web use in terms of information retrieval				
Restricted access in some of the websites	19	31.67	VI	XIV
Slow retrieval of information	39	65.00	I	II
In different websites different formats of article presentation	22	36.67	V	XII
Unavailability to download the information from websites	25	41.67	III	X
Lack of compatibility in opening of some files	18	30.00	VII	XV
Prior registration required for accessing some of the websites	23	38.33	IV	XI
Occasionally keywords not providing any content	32	53.33	II	V
Barriers of web use in terms of application				
Poor quality of information	30	50.00	II	VI
Lack of authenticity of information	35	58.33	I	IV
Lack of skills in usage and application of web-based content	28	46.67	III	VII

Problems faced by the scientists (Table 3)

Barriers of web use in terms of access: Majority (75.00%) of the scientists expressed ‘lack of proper internet connectivity’ as a major problem followed by ‘unable to access the paid websites’ (40.00%).

Barriers of web use in terms of information retrieval: Majority (61.67%) of the scientists expressed ‘modern computers are not available in the

organization’ as a major problem followed by ‘only abstracts were obtained’ (58.33%) and ‘lack of update of statistical data’ (45.00%).

Barriers of web use in terms of application: Majority (46.67%) of the scientists expressed that ‘lack of updated information’ was their major problem in case of application followed by ‘sources of information on some websites is missing’ (35.00%) and ‘exact information is not retrieved through keywords’ (31.67%).

Table 3. Problems faced by the scientists in terms of access, information retrieval and application (n= 60)

Problem	f	%	Category rank	Overall rank
Barriers of web use in terms of access				
Lack of proper internet connectivity	45	75.00	I	I
Lack of uninterrupted power supply	19	31.67	IV	XII
Lack of awareness about passwords	22	36.67	III	IX
Unable to access the paid access websites	24	40.00	II	VII
Lack of proper knowledge about few online websites	17	28.33	V	XIV
Barriers of web use in terms of information retrieval				
Only abstracts available	35	58.33	II	III
Lack of knowledge about relevant websites	20	33.33	VI	XI
Information retrieval difficult due to lack of high speed of internet	23	38.33	V	VIII
Frequent appearance of dead links	18	30.00	VII	XIII
Information not available in local language	24	40.00	IV	VII
Lack of update of statistical data	27	45.00	III	VI
Modern computers not available in the organizations	37	61.67	I	II
Barriers of web use in terms of application				
Lack of updated information	28	46.67	I	IV
Sources of information missing on some websites	21	35.00	II	X
Exact information not retrieved through keywords	19	31.67	III	XII

Table 4. Problems faced by the extension personnel in terms of access, information retrieval and application (n= 40)

Problem	f	%	Category rank	Overall rank
Barriers of web use in terms of access				
Lack of proper internet facilities	31	77.50	I	I
Lack of internet connectivity for AOs working in remote areas	21	52.50	II	IV
Lack of awareness about some of the recent agriculture websites	13	32.50	V	IX
Senior not knowing how to operate computer and access net	15	37.50	IV	VIII
Lack of uninterrupted power supply	17	42.50	III	VI
Barriers of web use in terms of information retrieval				
Unavailability to download the information from websites	11	27.50	IV	X
Slow retrieval of information	17	42.50	III	VI
Information not available in local language	26	65.00	I	II
Modern computers not available in the organization	22	55.00	II	III
Barriers of web use in terms of application				
Lack of updated information	16	40.00	II	VII
Lack of skills in usage and application of web-based content	18	45.00	I	V

Majority of the scientists expressed that proper internet connectivity could be due to low bandwidth of internet, lack of updated systems in the organization, limited access of research articles as they were kept under privacy by the concerned authors, uninterrupted power supply and lack of updated research information on websites.

Problems faced by the extension personnel (Table 4)

Barriers of web use in terms of access: Majority (77.50%) of the extension personnel expressed 'lack of proper internet facilities' a major problem followed by 'lack of internet connectivity for Mandal agricultural officer working in remote areas' (52.50%).

Barriers of web use in terms of information retrieval: Majority (65.00%) of the extension personnel expressed 'information is not available in local language' a major problem followed by 'modern computers are not available in the organization' (55.00%).

Barriers of web use in terms of application: Majority (45.00%) of the extension personnel expressed 'lack of skills in usage and application of web-based content' a major problem followed by 'lack of updated information' (40.00%).

Major problem like lack of internet facilities at Mandal office level could be due to poor support from the state department. The lack of information in local language was another major problem and it was important due to the reason that extension personnel directly worked with the farmers and they desired that there should have been change in language as per the requirement of farmers. Therefore modern computers should be provided at Mandal level offices to avail better internet access.

CONCLUSION

Considering the foregoing problems of the respondents following steps are needed to be taken in

order to improve the information access, retrieval and application:

- Making accessible most of the websites which were showing untangle.
- Providing detailed and accurate information.
- Providing high speed internet facility.
- Processing of information as per the needs of users.
- Website should provide high quality updated information.
- Installation of high speed internet routers in the organization.
- Conducting awareness programmes on effective utilization of online information resources.

REFERENCES

- Anitha V and Isakki P 2016. A survey on predicting user behavior based on web server log files in a web usage mining. International Conference on Computing Technologies and Intelligent Data Engineering, 7-9 Jan 2016, Kovilpatti, Tamil Nadu, India.
- Kumar AC 2016. A study of internet literacy and usage patterns to access e-resources by Assam University library users. *Frontiers of Library, Information and Computer Sciences* **2(2)**: 129-144.
- Kumar D 2010. Faculty use of internet services at a university of agriculture and technology. *Library Philosophy and Practice*. <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1330&context=libphilprac>.
- Sharma S, Singh H and Mishra MK 2008. Use of internet by teachers and research scholars in Kurukshetra University. *Library Progress (International)* **28(1)**: 155-160.
- Sharma UC, Chawla R and Madaan P 2011. Internet usage by the faculty members and the students in professional colleges at Mathura region: an empirical study. *International Journal of Information Dissemination and Technology* **1(2)**: 77-85.
- Sife AS 2013. Web search behaviour of postgraduate students at Sokoine University of Agriculture, Tanzania. *Library Philosophy and Practice (e-journal)*. <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=2150&context=libphilprac>.