USE OF WORLD WIDE WEB: A STUDY OF SCHOOL CHILDREN OF VIJAYAPURA CITY, KARNATAKA

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ABSTRACT

Web today is the most powerful tool for the instant access of millions of information resources. Children are among the most frequent users of the Internet. They face many challenges while searching and browsing the web. This paper presents the results of a study conducted on the use of World Wide Web by school children of Vijayapura city, Karnataka. It examines different aspects of using web by school children in terms of experience with web, frequency of use, purpose of using search engine, problems encountered in using web, etc. The study was done using survey method and structured questionnaire.

Keywords: World Wide Web; School Children; Vijayapura; Karnataka

1. INTRODUCTION

Internet has become the most powerful tool for communication, dissemination and retrieval of information. It is gradually changing the information seeking and searching behaviour of the academic community (Choudhary and Dasgupta, 2014). The Internet is increasingly used by young children for all kinds of purposes. There are many resources especially designed for children and also grown up users. Web is the most convenient source of searching specific information which children are increasingly using to complete their assignments and projects. Infact, it has become most widely used application of the internet among them. Browsing the web exposes children to a number of websites on all topics and in many different media formats (e.g. web sites, documents, videos, images). Many studies in different settings have been reported on the topic.

A study finds that children move from their home computers, to their schools' computing facilities, to their mobile phones, searching for online games, information for school assignments, and random facts they are curious about because of the world around them (Druin and others). Another study finds that now a day's use of internet and web searching through computers, laptops, mobile/ smart phones, tablet is common among school children. The technological advances had made web become a popular information resource and is increasingly used day by day as an alternative to other sources (Nagaraju and Roja, 2014).

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Ehtesham (2014) examined the prevalence of internet addiction among secondary school children studying in class IX and X and its relationship with their academic achievements. Kulkarni and Tadasad (2014) assessed the use of Internet by the school children in Vijayapura district. The study mainly focused on the awareness and use of internet, location of access to internet, source of awareness, learn to use, purpose of use, problems faced while accessing e-information resources, benefits for use of internet, preferred browsers for accessing internet. Midhula and Pillai (2015) investigated the awareness and usage of internet resources among visually challenged students in Thiruvananthapuram district, Kerala. Kulkarni and Tadasad (2015) investigated the awareness and use of internet based e-information resources among school children in two selected schools of Vijayapura district of Karnataka state. It assesses and analyzes the acquaintance of school children with IT, awareness and use of internet, problems encountered awareness about searching e-information sources, types of sources preferred, reasons for not using e-information sources, channels preferred and ability of them to use e-information sources.

Nahl and Harada (1996) carried out a study with 191 high school students to determine their search effectiveness after they have received special training to search the Internet. Bilal and Watson (1998) conducted a case study with children from a 7th grade science class (children between 11 and 13 years old) to determine how this group of users solve frequent school information tasks on the Web directory Yahooligans!. Bowler et al. (2001) studied the search process of a small group of children aged 11 to 12 to solve school informational tasks on the Internet, and found that the search engines employed (Excite, AltaVista and Yahoo!) contained information for all audiences, which discourage the users since they took long time periods to find useful pieces of information.

Fidel et al. (1999) conducted a case study with eight teenager users (aged 16 to 18) in a high school library. Users were giving school assignments to be solved with a search engine. No special training was provided for the task. No restrictions were established for the search engine, and users were allowed to use their favourite search tool. Most the students opted blindly for the search engine automatically adopted by the Internet browser. Gunn and Hepburn (2003) found a mismatch between the self-perception of search skills by the users (twelfth grade students aged 17 to 18 years old) and their actual performance in finding quality information.

Overall, most of the previous studies discuss the search problems caused by the mechanical and cognitive skills of children when searching on the Internet and the mismatch between current search engines and children's search capabilities. Hence, an effort is made in this paper to assess the use of World Wide Web by school children in an urban environment characterized by low HDI.

2. METHODOLOGY

It is limited only to examine the use of the World Wide Web by school children studying in

class VIII, class IX and class X in Vijayapura city of Karnataka. The study adopted survey method, and questionnaire was used as a tool for collection of data. A structured questionnaire has been designed keeping in view objectives of the study and distributed to 100 school children chosen using simple random sampling technique out of which 86 of them have responded positively.

3. CHARACTERISTICS OF STUDY POPULATION

Vijayapura city is the head quarters of Vijayapura district (earlier known as Bijapur). Before 1980s there were very few educational institutions in the city. But, today Vijayapura has emerged as a hub for professional education. There are many schools and colleges besides having two universities to provide pre primary, primary, secondary, higher secondary, under-graduate and post-graduate courses (Bijapur District, 2015). The city also has Sainik School, a Kendriya Vidyalaya. Besides these many CBSE schools run by private educational organizations are imparting education at secondary school level. There are 100 high schools in Vijayapura city among them there are 7 Government schools, 43 are Government Aided, 48 are Unaided and 2 are Central Schools. In spite of this, there are many disparities among the secondary schools leading to many divides. Government-Private, CBSE-KSEEB, Aided-Unaided, Coeducation-exclusive education, English-Kannada as medium of instruction are major divides that hinder the progress of the secondary education in the district.

Table: 1 General Characteristics of School Children (N=86)

Characteristics	Number (%)	Characteristics	Number (%)
Class			
Eighth Standard	22 (25.9)	**Age**	
Ninth Standard	28 (32.6)	12 to 15 years	72 (83.7)
Tenth Standard	36 (41.5)	15 years and above	14 (16.3)
Gender		**Apex Body**	
Male	46 (53.5)	KSEEB	71 (82.6)
Female	40 (46.5)	CBSE	15 (17.4)

Table 1 depicts the general characteristics of the school children. Firstly, the table reveals class wise distribution of the school children, where it is found that more than forty percent (N=36, 41.5%) of them are from class X, 32.6% (N=28) are from class IX and 25.9% (N=22) are from class VIII. The table also reveals the age wise distribution of the school children where in 83.7% (N=72) of them are from 12 to 15 years age group and 16.3% (N=14) belong to the age group of 15 years and above. It is also found that 53.5% (N=46) are male and remaining 46.5% (N=40) are female. 82.6% (N=71) of the school children are from Karnataka State Secondary Education Board Bengaluru and 17.4% (N=15) are from CBSE.

4. DATA ANALYSIS

Table 2: Availability of gadgets

Gadgets	Number	Percentage
Desktop/ Laptop	68	79.1
Internet	26	30.2
Mobile	86	100.0
Tablet	13	15.1

Table 2 reveals the data regarding the availability of gadgets. It is found that every single school child has access to mobile (N=86, 100%). Desktop/Laptop is available to 79.1% (N=68) school children, while 30.2% (N=26) have coonectivity to internet, 15.1% (N=13) have tablets. From this analysis one can say that mobile and desktop/laptop are the most popular media among the school children.

AWARENESS OF WORLD WIDE WEB

Table 3: Awareness of World Wide Web

Awareness	Frequency	Percentage
Yes	81	94.2
No	05	5.8
Total	**86**	**100**

When analysed the awareness of World Wide Web it is found from table 3 that nearly 95% (94.2%, N=81) of school children are aware of World Wide Web and only 5.8% (N=5) are unaware of it.

Table 4: Use of World Wide Web

Awareness	Frequency	Percentage
Yes	81	100.0
No	00	00
Total	**81**	**100.0**

Table 4 depicts the usage of World Wide Web. It is found that among children who are aware of world wide web everyone (100%, N=81) uses World Wide Web. World Wide Web is very popular among the school students.

Table 5: Methods used to access Web(N=81)

Methods Used	Frequency	Percentage
Through specific URL	00	00
Through General Search Engine	81	100.0
Through Subject Gateways/Portals	00	00

Table 5 depicts the methods used to search web by the school children. It is found that all children use general search engines to access web. No school child uses web through specific URL or through subject gateways/portals.

Table 6: Preference of Search Engine (N=81)

Search Engine	Frequency	Percentage
Google	81	100.0
Other search engines	18	22.2

Table 6 analyses the preferred search engines. It is found that Google is the most preferred search engine among the school children. 22.2% (N=18) prefer to use other search engines.

Table 7: Frequency of using World Wide Web (N=81)

Duration	Frequency	Percentage
Daily	42	51.6
Once in a week	06	7.4
Several times in a week	11	13.6
As and when required	22	27.2

Table 7 anlyses the frequency of using world wide web and it is found that 51.9% (N=42) of them use it daily, 27.2% (N=22) use it as and when required by them, 13.6% (N=11) of them use world wide web several times in a week and 7.4% (N=6) of them use it once in a week. It is found from the data that the school children use World Wide Web daily for some or the other use.

Table 8: Place to access World Wide Web

Preference	Frequency	Percentage
Home	66	81.5
School	32	39.5
Library	0	00
Cyber café	48	59.3

The preferred place to access world wide web is analysed and it is found from the table that majority (81.5%, N=66) of the children use world wide web in home, 39.9% (N=32) of them in school, 59.3% (N=48) of them use in cyber café while it is found that no libraries are providing use of world wide web in library. There are no children who prefer library to access Internet.

Table 9: Devices used for Web Searching

Devices	Frequency	Percentage
Laptop/Desktop	65	80.2
Tablet	12	14.8
Mobile Phone	75	92.6

Table 9 analyses the devices use for searching. It is found from the table that more than ninety percent (92.6%, N=75) of the children access web in mobile phones, 80.2% (N=65) on desktop and laptops and 14.8% (N=12) of them access it on tablet. It can be interpreted that mobile phones are the most popular device to access web among students.

Table 10: Purpose of surfing World Wide Web

Purpose	Frequency	Percentage
Access course material	25	30.9
To update knowledge	11	13.6
For exam preparation	15	18.5
For Projects	72	88.9
For assignments	61	75.3
To connect Social networking	65	80.2
For entertainment	69	85.2

When the data on the purpose of surfing world wide web was analysed it is found that 88.9% (N=72) use it for preparation of their projects, 85.2% (N=69) of them for entertainment, 80.2% (N=65) of them use it to connect with social networking site, 75.3% (N=61) for preparation of assignments, 30.9% (N =25) to access the course materials, 18.5% (N =15) for exam preparation, 13.6% (N=11) to update the knowledge. From this analysis it is found that majority of school children surf World Wide Web for their project works.

Table 11: Web searching skills

Method	Frequency	Percentage
By trial and error method	47	58.1
By friends help	23	28.4
By Parents	27	33.3
By teacher	56	69.1
From Library	00	00

Table 11 explain the web searching skills of the school children and it is found that majority (69.1% N=56) of them depend on their teacher to learn the web searching skills, 58.1% (N=47) depend on trial and error method, 33.3% (N=27) depend on their parents, 28.4% (N=23) depend on their friends and there are no children who gain knowledge of web searching skill from library. It is on to the library staff to provide knowledge and skills regarding web searching to the students.

Table 12: Use of Electronic Information Sources

Awareness	Frequency	Percentage
Yes	15	18.5
No	66	81.5
Total	**81**	**100**

When the data regarding use of electronic information sources is analysed it is found that out of the school children who use World Wide Web 81.5% (N=66) of them do not use electronic information sources and only 18.5% (N=15) of them use it. Hence, it can be said that electronic information sources are not popular among the school students.

Table 13: Preference Electronic Information Sources

Electronic Information Sources	Frequency	Percentage
e-Books	03	3.7
e-Magazines	00	00
e-Course Materials	06	7.4
e-Newspaper	00	00
Online Reading Material	12	14.8

When analysed the preference given by school children for using electronic information sources it is found that 14.4% (N=12) of them prefer to use Online reading materials, 7.4% (N=6) of them use e-Course materials and 3.7% (N=3) use e-Books. There are no one who uses using e-Magazines and e-Newspapers.

Table 14: Problems with Searching Web

Problems	Frequency	Percentage
Slow downloading	36	44.4
Irrelevant Information	15	18.5
Lack of skills in searching	48	59.5
Information overload	28	34.6
Cost problem	17	20.9
No information on required topic	11	13.6
Irregular power supply	16	19.8

The problems aroused with the school children while searching web is analysed in table 14. It is found that 59.2 % (N=48) of them lack skill in searching web, 44.4% (N=36) find slow downloading as a problem, 34.6% (N=28) find information as overloaded, 20.9% (N=17) find cost problem, 19.8% (N=16) find irregular power supply, 18.5% (N=15) find irrelevant information and 13.6% (N=11) find no information on the required topic.

5. CONCLUSION AND RECOMMENDATIONS

The present study has analysed school children's use of World Wide Web. The findings of the study have revealed many facts. Searching for relevant information on the Internet is often a laborious and frustrating task. From the present study, it is found that majority of school children are aware of Google. Children find difficult to locate information and resources and use of academic resources is low. Therefore, the librarians should spread awareness about the different search engines and also introduce a training programme on effective search techniques and strategies for different search engines.

Based on the findings of the study and the suggestions put forwarded by the respondents, few recommendations have been made to improve the existing internet access facility and usage of World Wide Web among school children. Awareness programmes have to be organized, by arranging talks on topics such as Internet, World Wide Web, digital libraries, etc. Describing their benefits and also how best to exploit them, facilitate and encourage development of basic ICT skills. To encourage acquiring such skills, users must be motivated to use World Wide Web. ICT

skills can be acquired as users access the Internet for other purposes also. Proper monitoring policies should be maintained to prevent misuse of web. Library professionals should take initiatives to provide list of important websites in a specific field that are useful for the school children. The library professionals should organise information literacy programme in regular intervals to create awareness among the users regarding various in-house electronic information resources. Training programmes on computer and internet literacy should be organised jointly by the library professionals and IT professionals from computer lab. To be effective in school system, students and teachers, as well as librarian, require training. To turn web searching into a productive and satisfying experience, all involved require training that explains how to search the web and how to evaluate the search process and results. It is also recommended that information literacy programmes should be integrated into the curricular in order to optimize the use of Web services. Libraries should address contextual and technical issues such as access to facilities, awareness on available resources, search skills, etc.

Effective integration of the use of the Web and search engine into a school's curriculum calls for collaboration between teachers and school librarians. These two mediators should diagnose children's common skills and problems during traversal and design information skills programs that respond to children's needs. Of importance is assessment of children's cognitive, physical, and affective behaviours in interacting with the Web and search engines. Children need to develop conceptual understanding of the structure of Web-based information. The Web should not be viewed as another textbook with a table of contents where a child goes to a certain page and finds the target information. To support learning, school librarians and other mediators should develop training programs that incorporate children's thoughts, actions, and feelings as they seek and retrieve information.

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