

GENDER DISPARITY IN AWARENESS AND USE OF SEARCH ENGINES BY COLLEGE FACULTY: A SURVEY OF BARAMULLA DISTRICT- J&K

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ABSTRACT

This study investigated the implication of gender in awareness and use of search engines by College Faculty in District Baramulla, J&K- India. As the study is survey-based, questionnaire method was adopted for data collection from the target population. The target population comprised of the faculty of 6 govt. run degree colleges of District Baramulla, J&K. The collected data were analyzed using appropriate statistical tools and techniques. The findings indicate that there is a significant difference between male and female faculty in the level of awareness of search engines, and the extent of utilization of Google search engine is also significantly different between the two genders. However, the extent of utilization of Yahoo search engine did not indicate a significant difference between male and female faculty at the college level. It was therefore recommended that the Department of Higher Education, Govt. of Jammu and Kashmir should put up an ICT policy document that promotes gender equity in the delivery of library and information services to clientele.

KEYWORDS: *Search Engines, Govt. Degree colleges, College Faculty, Libraries, Jammu and Kashmir*

INTRODUCTION

The recent developments in Information and Communication Technology (ICT) have caused a tremendous growth in electronic information sources. Due to the growth of the Internet, especially the World Wide Web (WWW), the electronic information sources are being widely used by students, teachers, scientists, and academicians etc. to fulfill their information needs. Electronic information sources are becoming more and more important for the academic community in the 21st century (Kumar and Kumar, 2008). These resources are now used more often than print resources at College level both by students and the faculty owing to the nature of their job which is primarily information dependent. Globally, the access to electronic information resources for teaching, learning, and research by College teachers has become an important part of academic activity. This is the reason why the library forms an integral part of the educational system with the primary responsibility of providing information resources to lecturers, students, staff and researchers in their respective institutions. There is no doubt therefore why College faculty makes extensive use of Information resources for effective teaching and research. In this way, the need for the adoption of information and communication technology in College libraries cannot be underestimated.

The internet has changed the format of information storage and retrieval. Today, the Internet has transformed the world into a knowledge economy. The knowledge economy is an economy where knowledge is the key raw material and source of value for development (Grillon, 1994).

A search engine is defined by Microsoft Encarta Dictionary (2008) as a computer program that searches for specific words and returns a list of documents in which they were found. According to Williams and Sawyer (2007), a search engine is a search tool that allows one to find specific documents through keyword searches and menu choices, in contrast to directories, which are lists of websites classified by topic. Aina (2004) viewed keyword as a combination of few words or phrases that represent what the information seeker is looking for; giving enough information about each document that will enable a user to retrieve the desired document when needed. Some popular search engines and their web addresses include:

Excite (<http://www.excite.com>),

Google (<http://www.google.com>),

Hotbot (<http://www.hotbot.com>),

Bing (<http://bing.com>),

Teoma (<http://teoma.com>),

Yahoo! (<http://search.yahoo.com>).

Through the utilization of search engines, lecturers would be able to retrieve relevant resources from online journals and e-books stored in diverse Internet sources and databases. Some of the sources for online journals and e-books include:

Directory of Open Access Journals (DOAJ) (www.doaj.org),

Best of the Web Directory (www.botw.org),

Yahoo Directory (www.dir.yahoo.com),

Wikipedia (www.en.wikipedia.org),

J-STOR (www.jstor.org),

Google Books (www.books.google.com),

E-Book Directory (www.ebookdirectory.com), etc.

NEED OF THE STUDY

While most of the resources are free, others require subscription payment for full-text access. Wilson (1997) therefore noted that gender is one of the intervening variables in information retrieval processes. Even Cadena (2008) stated that men and women search for information differently on the Internet. Hotchkiss (2008) also pointed out that there are differences between men and women in the use of many Internet applications. UNESCO (2003) believes that unless gender issues are fully integrated into technology analyses, policy development, and programme design, women and men will not benefit equally from ICTs and their applications. UNESCO went further to suggest that gender awareness and use of ICT need to be taken into account in further studies. This study therefore, seeks to investigate the role of gender in the awareness and utilization of search engines by lecturers in Govt. run Colleges of district Baramulla in Jammu and Kashmir, India.

OBJECTIVES OF THE STUDY

The study was carried out keeping following objectives in view:

- To find out if there is a gender difference in awareness of search engines.
- To find out if there is a gender difference in use of search engines by male and female faculty members at the college level.
- To suggest ways and means bridge the gender gaps in the use of ICT for information access and use.

HYPOTHESES

The following hypotheses were made for the present study:

- There is no significant difference between male and female faculty members in the level of awareness of search engines.
- There is no significant difference between male and female lecturers' use of Google search engine for information retrieval.
- There is no significant difference between male and female lecturers' use of the Yahoo search engine in information retrieval.

METHODOLOGY

A descriptive survey method was used in this study. This study was carried out in District Baramulla of the State of Jammu and Kashmir. District Baramulla was selected through a balloting process from a ballot container involving the other two districts of North Kashmir, namely District Kupwara and District Bandipora with each district having an equal chance of being selected. District Baramulla has the highest literacy rate and is the highest in terms of enrolment of students and staff in the degree colleges of the District, faculty working in the four Govt. run degree colleges were the target of the study. The questionnaire method was used in the study which was developed by the researcher after consulting various relevant literature and resource persons. The questionnaire was administered on respondents by the researcher and 75 copies were duly completed and returned. The data collected were analyzed using appropriate statistical tools and techniques. Biodata of respondents was analyzed using frequency count and percentage while hypotheses were tested using SPSS Version 16 for Windows.

REVIEW OF RELATED LITERATURE

A web crawler is a kind of computer program that browses the Web in a methodical, automated way (Hu, 2001). This process is called web crawling or spidering. Search engines use spiders to provide up-to-date information. The most important aim of the web crawler is copying all visited web pages for later searches to make next searches faster (Batzios, 2007). According to Schwarts (1998), there are two types of search engines. First, the search index, which is a vast catalogue made up of every word taken from all the web pages searched by the crawler. Google is an example of a search index type of search engine. Second, the web directory, which organizes web pages into categories and subcategories for easy retrieval.

Gender and Internet

The link between gender and internet usage has attracted a lot of debate among researchers. Many researchers feel there is gender inequality in Internet usage. Based on his studies in Europe Norris (2001) observes that economic or individual factors may be significant for the understanding the Internet access. Even then, Winker (2005) mentions in his study that there is a still gender-specific difference that cannot be explained just by studying the differences in education or even in income and its effect on Internet usage. Chandran (2008) carried out a study on the use of Internet information resources in S.V. University Tirupathi, India, and did not find any significant difference between male and female awareness of diverse online journals, databases, and e-books. However, Kwapong (2009) observed that awareness of Internet resources is relatively higher amongst men than women in the most endowed region, in Accra than the deprived regions. Furthermore, Madhusudhan (2007) stated that most research scholars at Delhi University are aware of information resources. However, no gender difference in awareness was reported. Also, *Gender and Use of Search Engines*: The existence of small but significant gender differences in most aspects of life are supported by a large body of research. (Burman, Bitan, & Booth, 2008). For example, the female advantage in language and cooperation and male advantage in visual-spatial reasoning and competitiveness are a common example, (Bonanno & Kommers, 2005). Such gender differences have found its way into online environments as well (Lee, 2007; Cooper, 2006). In the bid to identify the reason for the differences in male and female use of the Internet, Bimber (2010) explained that gender differences exist because men and women differ, on average, in socio-economic status, which influences computer and Internet access and use. Another reason is that men tend to be more interested in computers than women, on average, contributing to gender differences in Internet use (Shashaani, 1997). Such intergroup differences tend to eventually diminish, although not necessarily disappear altogether, as a technology diffuses over time (Compaine, 2001).

DATA ANALYSIS AND INTERPRETATION

Table 1: Respondents' Sex Distribution

Sex Distribution	Frequency	Percentage
Male	42	56
Female	33	44
Total	75	100

The above shows that 56% of respondents are male and 44 percent respondents are female faculty members.

Table 2: The Colleges in District Baramulla where the Respondents are Working

Name of the College	No. of Respondents	Percentage
Govt. Degree College Sopore(Boys)	15	20
Govt. Degree College for Women Sopore	11	15
Govt. Degree College Baramulla(Boys)	10	13.3
Govt. Degree College for Women Baramullla	13	17.3
Govt. Degree College Pattan	12	16
Govt. Degree College Hadipora, Rafiabad	14	19
Total	75	100

The table above (table 2) indicates that 20% of the respondents are from Govt. Degree College Sopore (Boys), 19% from Govt. Degree College Hadipora, Rafiabad, 17.3% from Govt. Degree College for women Baramulla, 16% from Degree College Pattan, and 15% from Govt. Degree College for Women Sopore.

Table 3: Independent t-test Showing Male and Female Faculty Members’ Level of Awareness of Search Engines

Variables	No. of Respondents	Mean	SD	d.f	t	Sig. (2-tailed)	Decision
Males	42	3.73	.59	73	3.69	0.001	Significant
Females	33	3.32	.41				

Hypothesis 1: There is no significant difference between male and female faculty members’ level of awareness of search engines

In the table, t (df.73) is 3.69 and it is significant at 0.001. This indicates a significant difference between male and female faculty members’ extent of awareness of search engines. **Therefore hypothesis one is rejected.**

Table 4: Independent t-test Showing Male and Female Faculty Members’ Use of Google Search Engine

Variables	No. of Subjects	Mean	SD	d. f	t	Significance(2-tailed)	Decision
Males	42	3.97	.32	73	4.80	.000	Significant
Females	33	3.57	.36				

Hypothesis 2

There is no significant difference between male and female faculty members’ use of Google search engine.

In table 4, t (df.73) is 4.80 and it is significant at.000. This indicates a significant difference between male and female faculty members’ use of Google search engine. **Therefore, hypothesis two is rejected.**

Table 5: Independent t-test Showing Male and Female faculty members’ Use of Yahoo Search

Variables	No. of Subjects	Mean	SD	d. f	t	Significance(2-tailed)	Decision
Males	42	3.70	.53	73	1.16	2.0	Not Significant
Females	33	3.57	.39				

In table 5, t (df:73) is 1.16 and it is not significant at 0.05. This indicates no significant difference between male and female faculty members’ use of the yahoo search engine. **Hypothesis three is therefore accepted.**

FINDINGS

After a careful analysis of data collected the following findings were made:

- Independent t-test of the hypothesis of male and female faculty members’ level of awareness of search engines showed a significant difference (t (df.73) is 3.69 and it is significant at 0.001).
- Independent t-test of the hypothesis of male and female faculty members’ extent of use of Google search engine indicates a significant difference between male and female faculty members’ use of Google search engine retrieval (t (df.73) is 4.80 and it is significant at.000).
- Independent t-test of the hypothesis of male and female faculty members’ extent of utilization of Yahoo search engine indicates no significant difference between male and female faculty members’ use of yahoo search engine (t (df:73) is 1.16 and it is not significant at 0.05).

CONCLUSIONS

From the findings above we may conclude that there exist a significant gender difference in awareness and use of search engines between male and female faculty members at the college level. Further, the significant gender difference was found in the awareness of finding information resources on the Internet in favor of male lecturers. Furthermore, a significant gender difference exists in the utilization of Google search engine in favor of male lecturers, while no significant gender difference was found in the use of the Yahoo search engine.

RECOMMENDATIONS

In the light of the results of the study which shows that there is a significant gender difference between male and female lecturers' awareness and use of search engines, the Higher Education Department and the university authorities should put up an ICT policy document for their affiliated colleges that promotes gender equality in the delivery of library and information services to users. The policy should include guidelines for the college libraries to initiate information literacy programmes that enhance the capability of female lecturers in terms of internet accessibility, duration of internet access, training and retraining, access to subscription databases among other things. The policy should also provide for regular training and retraining of library staff in order to ensure effective service delivery.

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