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## SEARCH ENGINES

Judith Imoniwe  
judypee4real@gmail.com

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**BY**

**IMONIWE .O. JUDITH**

**DEPARTMENT OF LIBRARY AND INFORMATION  
SCIENCE, FACULTY OF EDUCATION DELTA STATE  
UNIVERSITY, ABRAKA.**

**ABSTRACT**

The Study surveyed the frequency of search engines use by undergraduates students, the features of the search engines, benefits of the search engines as well as problems militating against, the use of search engines by students. Awareness is a necessity to the usage of search engines, when a new technology comes to existence (search engines) and its knowledge is not known, its usefulness will not be embrace. The study also brought out recommendation which include the following, there is need for promotional activities towards creating awareness such as internet, debate and workshops. This will create awareness on the part of the students. University authority should organize search engine use training programmes that will help the students to improve upon their search for information and also use the major search engines regularly.

## **SEARCH ENGINES**

### **Awareness of Search Engines**

Awareness is a necessity to the usage of search engines. When a new technology comes to existence (search engines) and its knowledge is not known, its usefulness will not be embraced. Likewise, for an individual or student to participate in any work or activities, awareness about the environment, how things are done and should be done is very important. Adams (2010) noted that level of awareness of various search engines to students in higher institution is very low. Adams (2010) further explained that students have very confused understanding of various search engines and its concept. Moreover, many students have not yet involved with various search engines.

According to Barton (2011), it is surprising and disappointing that search engines have generally grown more slowly, than advocates had hoped for. The phenomenon is worldwide. Besides, the search engines will expose the students as well as the faculty to the various benefits embedded in them. Barton (2011) further pointed

out, that as you begin to build a service, it is vital to communicate how the service benefits the students as well as the university community. In other words, to do some marketing to advertise the service on campus. These types of promotional activities are important because they raise awareness of the various search engines. Notwithstanding, Barton found that use alone does not populate search engines. They must be supplemented with other more targeted recruitment strategies. The information professionals and the host institution in general should play a very important role in attracting and creating awareness of various search engines to students (undergraduates) to enhance effective usage.

Shearer (2012) noted that there is a great reason why students' use of the various search engines is very low, at the most basic level undergraduate students lack the existence of the various search engines, many of the students according to Shearer (2012) are not familiar with the concept of various search engines. In addition, the lack of knowledge or awareness of search engine is a common

factor among undergraduate students as well as researchers, infact, this is the situation in most developing countries. In line with the above, Gabriel (2011) asserted that most of the students claimed that they got various search engines awareness from their friends, Internet debate and workshops. Level of awareness of search engines issues are varied.

### **Use of Search Engines by Students**

Students as well as individuals make use of the search engines for a variety of purpose, they have different perceptions of its nature, and achieve different outcome to their searches, by categorizing the reasons for users' interactions with the web. The various resources for learning, staff and students throughout the world can retrieve seemingly endless volumes of information from all over the globe in a short span of time. E-materials have exceeded that of print-based publications (Daijeish & Hall, 2000). Currently information is usually presented in electronic format and under these circumstances the web is a major platform supporting this format, thus, it is

necessary to understand why university students are so attracted to the web to satisfy their information quest.

Students search engine use has been addressed extensively in recent scholarship and research. One area of inquiry involves the role of the research materials for class projects. According to Lindary and McLaren (2010) university students use the search engines for research and made evaluation on the quality and type of research materials being used. In addition to the above, Burton and Chadwick (2000) noted the Internet search habits of students and said that some of the students depend solely on e-resources in writing research papers, majority of the students used a combination of library and online resources. This did not, however, mean that students were necessarily choosing the best or most pertinent sources relating to their topics. Instead, as emphasized by Lindary and McLaren (2010), students depend on “access, access, access” giving the most positive ratings to sources that were easy to understand, easy to find and available. The e-resources are very easy, convenient and accessibility, were

major factors influencing academic use. The use of the search engine for research also underscores the increasing affinity for digital information. The socio-technological environment of universities, that began emerging in the late 1990s has led to increasing dependence on the e-resource, which has only grown as many students enjoy free access 24 hours a day on Internet. According to Kandell (2012) dependence coupled with easy access to technology, points towards college students spending a substantial quantity of time on the search engine.

### **Frequency of search engine use by Students**

The frequency of use of search engine depends on what type of information an individual or students need. According to Andrew (2011), the particular information students want determine how long the student will spend with the search engines. Students use the Internet for recreational purpose, for example, playing games online, visiting adult-only sites, accessing news groups, discussion forums, staying abreast of news developments and seeking information for personal use 2 – 3 times a week. Students

find the features of search engine very significant and enjoyable, as they have access to the features for communication, which they often do through the E-mail. The use of the E-mail is very powerful, as students use it for communication and information and it is done regularly with their mobile phones. Jude (2013), in line with the above, the use of the e-mail can take place from anywhere like (home, school, car and workshop) as far as there is network on the phone. Students use the search engine for regular communication as well as information. In addition, it is interesting to note the undergraduate students visit to the Internet centre established by the host institutions. This will enable the institution to discover if the students are really making use of the Internet facilities of the institutions and the frequency of usage. In line with the above, Philip (2012) noted that many of the undergraduate students in most institutions use search engine for whatever information they want and some of the students come 1 – 2 times a week, and 2 – 3 times a week, and once in two weeks. Philip (2012) further stated that the



frequency of the use of the search engine by an individual depends on the gravity of information the individual is seeking for, which could be either for study or research. In using the search engines to search for research materials as well as materials they need for their assignments, undergraduate students spend more time because, they are at home and the information is in detail which may take five to six hours per day.

### **Features of Search Engines**

According to Zhou (2005) the following are the features of search engines: News/News Feed, advertisement, leisure and email.

News/News Feed: This is one of the features of search engine and students use it to have access to news of different kinds. Students that make use of the search engine in terms of news get both local and international news and are more current than those that do not know about the search engines, which also give them means to current definitions as well as current development.

Advertisement: This is another feature of search engine and different kinds of advertisement take place. The advertisement include advertisement general and advertisement classified.

According to Charles (2013) the advertisement general is made open for everybody, but many students due to the fact that they are not aware of the major search engines are ignorant about it. With this advertisement general current development are made known to users. Users that are aware of modern technology will be more open to its' benefits than those that have no usage and awareness. Hence there is need for students to strive to be abreast with modern technology like search engines.

Leisure: This is another feature of search engine where online shopping can be done, a user can contact the seller online with the search engines to know what they have and go for it through the website of the user connected to the search engines. Many students use this search engine feature for reading of newspapers as far as the

school website is connected to the search engine. According to Joe (2011), this will enable students to get different information. Students that make use of search engine discover that the search engine does not only provide access to e-books but also access to e-journals, as well as newspapers for students that can be used to relax while reading. Students that make use of this search engine features will be aware of latest happenings of their school and home environment, more than those students that do not make use of the search engine and its features.

E-mail: This feature of the search engine is very common among users and brings information to users, in the sense that, not only do computer students use to get access to different information, they also use their cell phones that have Internet connectivity to have current information, as well as communication with friends and relations all over the world. Francis (2010) observed that, students can have means to instant messages and instant responses. Since the invention of the e-mail, there is more information than ever and students that are using it, have

more information than others and are always at the upper side to getting adequate information.

### **Benefits of Search Engines**

According to Harry (2013) benefits of the major search engines include the following: Information, communication, education and training.

Information: search engines provide opportunity for the academia. It is a mechanism for information dissemination and a medium for collaboration, interaction between individuals and their computers linked to the search engines. Students can now download free information or obtain information from database subscribed by universities. The search engine is available source for students, looking for ideas for projects and assignments. As it is with the search engines whatever information obscure can be found. The search engines affects the supply of scholarly journals to university students and with this users have wider selection of scholarly journals to choose from. The supply of scholarly journals has been affected by the search engines in the following ways: The supplies of

scholarly journals have increased, and the bundling of journals as part of license agreement gives students the opportunity to seek and browse through thousands of journals. In addition, the supply of the scholarly publication, such as conference proceeding, manuscripts, have also increased as users can browse them with the search engines. Hasittunen (2010), synthesized two reasons why search engines mediate information services and sources have made information retrieval very easy. First the rise of the importance of information searching in curriculum and second, the availability of electronic information sources and search tools. The use of search engines as an information seeking channel has many benefits. Datgeish and Hall (2011), provided two attributes of the search engine as compared to textbooks. Firstly, the search engine has the ability to provide up-to-date minute information and secondly this information can be available all over the world. According to Dalgeishand and Hall, there were weaknesses to print system of publication. Print journal is slow to appear oftentimes and come to libraries

through a distribution system full of pit falls. Okerson (2012), pointed out that access to individual copy of the print journal is limited to one user at a time and further reproduction is legally questionable or expensive if done with the publisher's permission and it is labour intensive. Searching print text with reliability is difficult, but browsing print text is relatively easy. The links provided on the web page to connect to information on the other pages are like a spider web expanding to ends. Pascore (2010) noted that this is a contrast to printed materials where information is confined within the covers, from the view of students, the search engine affects how, when and where students learn about the world. It is accessible twenty-four hours a day, seven days a week. Students can access information anywhere and anytime, websites are continuously updated and revised.

Communication: This is also another benefit of search engine, through its feature, e-mail. Though the e-mail, newsgroup, chatting, forums and video conferencing user acquire e-mail addresses through an Internet service

provider (ISP) or an online service. This help users into communication quickly and as such be abreast with latest happening.

Education and Training: The search engine is causing educators from pre-school to graduate school, to rethink the nature of teaching, learning and schooling, students' conceptions of information sources varied widely, however, the main idea of information resource has moved from traditional library to the Internet. Ambrose (2010) noted that search engine is the delivery of education opportunities and training. Many companies today provide subsidized opportunities for workers to pursue further education in their field. The essence of this, is to increase the employees' value to the company and workers satisfaction with the employers. Also in higher institution, for example, university lecturers are given education trust fund (ETF) for them to further their studies and this could be done either within or outside the country, information on how the training will go, duration, condition for participation can be

done through the website of the university picked by the search engines.

### **Problems Militating against the Students use of Search Engines**

The use of search engines have some problems. According to Willy (2011) the problems include: The risk of plagiarism, is becoming more prevalent because of the ease of using “copy and paste” word processing function, to directly take material from information sources and place it within assignment and the study habit of many students, may change into scanning and surfing. Writing skills may become replacing synonyms into existing sentences or paragraphs. These the researcher concludes as “shallow learning”. Dane (2008) opined that it is still questionable whether the convenience of the web makes students procrastinate their assignments.

The effectiveness of search engine, search is also of concern. The Internet is a vast ocean of information by its nature. The amount of information available on the search



engine, means that students tend to mislead with a lot of unnecessary information. As the Internet is not owned by anyone, the search engine lacks any sort of bibliographic control, as well as censorship of information available, searching for a particular web page without the use of proper tools can be tedious and even useless. The major problem with search engine, is that, search queries turn up for many results, erring on the side of recall rather than precision.

According to Eliopoulos and Getlieb (2013), it is concern that most students have only a vague understanding of the way search engine works, which resulted in a poor exploited of their facilities. The potential of the search engine, is also currently being limited by relatively slow data transmission speed and by the problems of information management and retrieval posed by the existence of such vast amount of information. Chapman (2002) stated that students are often not able to make sound judgment about the quality and relevance of information on the search engine.

Amoritpal (2000) asserted that students are faced with the problems of slow Internet connectivity, many sites disappear without any notice or warning, slow access is also barrier, when a large number of simultaneous users are connected to the Internet.

Techno-stressed is another problem, when the frustration, confusion and fear caused by technology overload and the lack of sufficient direction to navigate the glut of information available become over whelming. With the increasing amount of resources online, the ability to find data efficiently and effectively is essential. Reynolds and Smith (2000) noted that information retrieval, especially subject retrieval, is clearly a difficult issue with which library profession as a whole is struggling for many years. Education for digital libraries is complex proposition, in part layers of technology and at the same time so much that is new in creation, content, representation, organization, access and use.

The quality of information has been a long standing concern, though search engine has become an important

source of information. Only in a short period of time, with the search engine, anything can be published on the web at low cost, and distribution is virtually worldwide. Profuse amounts of information are put on search engines every day. In many cases, there is no editor, reviewer to determine the credibility, quality, accuracy of the material. This may lead to inaccuracies and misleading information being published. Information literacy enables a college student to recognize information needed, develop a strategy to locate, evaluate and synthesize information accurately. Users are faced with diverse and abundant information choices, in their studies and workplace.

A variety of information available through community resources, special interest organizations, manufacturer and service providers, media, libraries and the search engines. According to Levin (2002), information has increasingly come unfiltered. This raised questions about authenticity, validity and reliability. In addition, online information is available through multiple media, including graphical and textual.

Information seeking involves uncertainty, which decreases as more information is gathered on the search engine. This is a problem, since the quality and aim may vary significantly. Griffiths (2003) stated that students are not very adept at evaluating the quality of online scholarly publications, since they seemed confused about the actual meaning of quality scholarly publications.

Poor data transmission quality resulting from low international bandwidth, in Africa for example high international tariffs make it difficult for Internet service providers (ISPS) to obtain adequate Internet bandwidth for delivering search engine pages over the Internet. Adogbeji (2005) opined that the search engine industry in Africa is constrained by low international bandwidth and high dial-up tariff, as well as high cost of pc's. It has been observe that cost of bandwidth in Africa is much more than that of developed countries. For example, Africa universities, outside South Africa, pay over ₦55,000 per Month for 4mbps in bound and 2mbps out-band width. This amount is about 100 times more expensive than equivalent prices in North American or Europe. According to INASP (2003) in addition slow equipment seemed to be doubled edged swords which limit the use of search engines.

Another important impediment to the use of search engines, is the problem of locating services and resources which involves the use of terminology. In line with Dewey (2000), multiple terms are used to indicate the same source of service even with the same website, different terms are as headings to designate the same task.

Reluctant to appreciate search engine by users has also constituted impediment to the use of search engines.

Another problem of search engine is low level of awareness, low level of search engine literacy among Africans has really hinder their use of the search engine, because, they see the need as well as the importance as zero. Due to lack of search engine knowledge, such user lack awareness of the benefits of their organizations or institutions, can derive from the use of search engines. In addition, students that are not computer literate will not be able to make use of the computer and have access to the search engines, because, the ability to find and retrieve information effectively is a transferable skill useful for

future, as well as enabling the positive and successful use of the electronic resources.

Power outage is another problem affecting the use of the search engines. In developing countries like Nigeria, is a major problem towards the use of computer and search engines. In line with Rosenberg (2005), that electricity in Africa hampers search engine development and applications.

According to Rosenberg when there is no power, even if a student can operate the computer and connect to the search engine the purpose will be defeated.

Finally, inadequate knowledge of available search engines, the number of search engines that are known to users are very few and this will prevent access to enough materials. Morgan (2005) stated that inadequate knowledge of search engines will also constitute a barrier to search engine use. Mort further explained that searching the search engine for business information and education, information professionals concentrated on two search

engines Google and Yahoo. While other search engine were not used. This is because of lack of knowledge of available search engines.

## **Frequency of undergraduate students' utilization of search engines**

The finding from this study revealed that undergraduate students from the seven (7) search engines listed, Google was the most used, which was used daily with frequency of 79.2% followed by Google scholar used 2-3 times per week. This implies that the undergraduate students are frequent in their ability to locate and access information, use and communicate information. This is in line with Andrew (2011), that posited that the particular information students need determine how long the students will spend with the search engines.

Another finding in the study revealed that greater proportion of the respondents indicated that they never used the other major search engines as shown by their respective response Ask (48.1%), Bing (44.8%), Blekko (46.8%) and Web Crawler (41.6%). This implies that many of the students do not use the other major search engines frequently apart from Yahoo and Google known to them. It



could also be seen that greater proportion of the search engines were not frequently used by the undergraduate students.

## **Conclusion**

From the interpretation and discussions of results of this study as they affect the research questions and hypothesis, the following conclusions were made.

- Students embraced the features of search engines greatly which are play game and email. Many of the students make more use of email with which they exchange information to one another via their mobile phones.
- It was obvious that undergraduate students appreciated the benefits of search engines and the search engine affects where, how and when students learn about the world; because it is accessible twenty-four hours of the day.
- Undergraduate students are faced with many challenges emanating from the use of use of search engines,

information overload, which is followed by lack of search skills.

### **Recommendations**

The following recommendations have been made based on the findings and conclusions made in this study:

1. There is need for promotional activities towards creating awareness such as Internet debate and workshops. This will create awareness on the part of the students.
2. University authority should organize search engine use training programmes that would help the students to improve upon their search for information and also use the major search engines regularly.
3. The university management should include the use of search engines by students in the curriculum of the Faculty of Social Science.

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