# The Use Of Internet Among Kenyan University Students

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*Abstract: This study assessed undergraduate Kiswahili students' use of the internet in searching academic information. The study was conducted in four universities, two public and two private. Specifically, the study sought to know whether undergraduate Kiswahili students' use of the internet was influenced by gender, age having a personal computer or prior computers skills. Theoretical framework for this study was based on the Individual Innovativeness theory as postulated by Rodgers. Which states that those individuals who are predisposed to technology would adopt the innovation earlier than those who are less predisposed. The study used descriptive survey method of research, questionnaire and interview schedule. Data was collected from 280 undergraduate Kiswahili students who studied Kiswahili and 8 information communication technology experts from the four universities. The data collected was analyzed using both descriptive and inferential statistics with the help of SPSS software. Descriptive statistics used included frequencies, means and standard deviation. While inferential statistics used was t-test. The t-test was used to establish the difference in means between two groups. The null hypotheses were tested at 0.05 level of significance. This study revealed that there is no significant relationship between age and undergraduate Kiswahili students' use of the internet for academic purpose. Nevertheless, there is a significant relationship between having a personal computer and undergraduate Kiswahili students' use of the internet for academic purpose. There is also sig In view of these findings, it is recommended, that the universities be provided with personal computers at subsidized prices. It is recommended that universities should enlarge their Information Technology Centres to cater for students needs.*

## Background to the Study

The school curriculum in Kenya has been undergoing reforms and modernization. Educational media has been strengthened to meet the demands and expectations of modern education. Higher education is being challenged by the new opportunities relating to technologies that are improving ways in which knowledge is accessed by students. Using technology to enhance students learning in universities has become an important area of discussion and study within the field of educational technology. Information communication technology (ICT) devices are recently emerging technologies that have now become integral to school systems (Mukwa and Too 2008).

There has been a paradigm shift in the process of academic communication. Until recently, university students were still physically restricted to hardcopy materials that were only obtained on paper, for instance in libraries. Today with the rise of the internet, a university student is no longer physically bound to material that is close by, but can easily search, obtain and download papers in electronic journals and electronic books (Chacha, 2000). The internet is relatively new medium that contains a good amount of academic information. Internet-based academic strategies can certainly help in using the medium to; avail students with new skills and produce up-to date educational materials (Makokha 2009). Training of undergraduate is necessary for equipping institutions with the necessary skilled manpower and administrators of national development.

Working in close collaboration with the ministry of Higher Education, University of Eastern Africa Baraton, Mount Kenya University, Maseno

University and Kenyatta University, provide internet services to undergraduate students so as to increase their capacity to incorporate resources while attempting assignments, examinations and research projects. The universities also developed a web presence for students.

The use of the internet is growing exponentially in universities around the world (Jagboro, 2004). The use of the internet underscores the increasing affinity for digital academic information. An example of this increasing acceptance and embracing of the technology can be found in the case of adoption of e-books.

Currently the internet is arguably one of the most significant technological developments of the late 20th century adopted by many institutions of higher learning for educational purposes. The internet provides learning opportunities outside the classrooms and facilities communication making it convenient for accessing academic information (Kim, 2005). According to Michau (2005), the internet instruction provides all-time access to learning at anytime and from any location, it is cost effective and has a wide reach. Given this exponential growth, there is little doubt that the internet-assisted tasks become a major medium of searching academic materials by the undergraduate Kiswahili students for the universities.

**Statement of the Problem**

The Kenyan government has recognized the importance of provision of quality education and training programs to its citizens, not only to meet the demands for the 21st century but also to compete favorably with the international standards (Republic of Kenya 2005).

However, despite the substantial allocation of resources to education, the sector is still dogged by challenges which are likely to undermine attainment of projected goals especially as envisaged under the Vision 2030 development strategic plan. One of the notable challenges facing higher institution of learning is the use of new technology, the internet. Although undergraduate Kiswahili students use the internet for academic tasks, some undergraduate students tend to use the internet for leisure and not for academic purpose (Burton, 2006). Others still use the traditional ways when doing their assignments. This situation gets more challenging especially when students at the university are preparing for semester examinations and academic projects.

Undergraduate Kiswahili students may require the acquisition of new skills to utilize the internet effectively. This has been overlooked (Dyck, 2005). Several research studies concerning internet in universities tend to centre on variables such as media comparison and sustainability. Although undergraduate Kiswahili students use the internet for academic purpose in relation to the following variables: gender, age, prior skills with computers and having a personal computer. This attributes are important in enhancing learnig (Ndaula, 2009, Makewa, 2008).

It is important to assess undergraduate students' use of the internet media because their use of this technology has an influence on their effective use in education (Makokha, 2009). This study therefore, attempted to assess the undergraduate Kiswahili students' use of the internet for academic purpose in relation to four variables: gender, age, owning a personal computer and prior computer skills in four universities.

**Purpose of the Study**

The study sought to establish if undergraduate Kiswahili students used the internet for searching academic information in Kenyan universities. The study specifically investigated the undergraduate Kiswahili students' use of the internet for academic purpose in the four universities; University of Eastern Africa Baraton, Mount Kenya University, Maseno University and Kenyatta University.

**Objective of the Study**

This study specifically established undergraduate Kiswahili students' use of the internet for academic purpose in relation to gender, age, owning a personal computer and prior computer skills with a computer. The research had the objective of establishing the relationship between gender and undergraduate Kiswahili students' use of the internet for academics.

## The Significance of the Study

1) It is hoped that the findings of this study will benefit all public and private universities to be enlightened on the need to advance and develop more internet infrastructure to be used within departments for enhancement and delivery of high quality university academic products.
2) The study is significant since it will enlighten the ministry of Higher Education on the needs to increase the budgetary allocation for higher education in both private and public universities to cover the maintenance of ICT and the internet technology.
3) Findings of the study may help the universities academic staff to be more aware of the need to revisit the highly bureaucratic and traditional teachers centered approaches of teaching which are likely to hamper the infusion of the internet technology in the curriculum.
4) The study is significant since it will enlighten other universities in the world to seek the use of the internet for education and start to offer the feasible, effective and interactive on-line degree and certificate programs, using the media.

## REVIEW OF RELATED LITERATURE

Generally, the literature on e-technology presents an obscuring picture of the relationship between the gender gap and internet frequent users. While most researchers agree that gender gap in internet use has narrowed significantly among undergraduates (Goodson, 2005 and Odell, 2006). Others points out how gender differences affect the frequent use of the internet, online applications preferred and experience in cyberspace. Investigations of students' internet use have proven especially insightful, as research on this group allows for an examination of gender differences within an institution in which the male and the female generally have equal access to the internet (Odell, 2006). At times research on gender and internet is contradictory, demonstrating the dynamic nature of the interaction, as well as the need for continued investigation.

In their study Jackson (2005) found that females in general reported less favorable computer users. Other literature, however, contradict these findings. While several investigations have reported that gender has no significant effect on frequent use of the computer (Jennnings, 2006 and Zhang, 2007) found that female undergraduates use the internet more frequently compared their male peers. The consistencies in these findings reveal how the increasing number of female internet users was altering women's frequent use regarding computer and the internet.

Bimber (2005) and Ono and Zavodny (2003) argues that the gap in the internet usage is larger where more intensive internet use is concerned. Women are substantially less likely to be frequent users. Female are less intensive internet users than the males. Such a scenario is attributed ton a combination of gendered technology embodying males' values, content that favor men and sex differences in cognition and for communication (Zhang, 2007).

The online experience itself may be very different for males and females. Internet tends to be biased towards men and male oriented information (Bimber, 2005). Not surprisingly, male undergraduate students are significantly more likely to have accessed sexually explicit materials

online, while more female users reported sexual harassment on the internet (Goodson, 20005). The sexuality of online environment is bound to affect how both sexes feel about the internet in general and the specific web sites encountered.

The extent to which the gender gap in university is a predictor of attitude towards media use is a major concern. Gender gap affects the times spend on the internet preparation for examinations and assignment materials, and time spend on the internet for research projects. To a great extent success or failure to adapt the internet media in a learning institution is a result of gender gap (Brackett, 2004 and Britt, 2005). Research generally supports that females have less overall experience with computers and are more likely than males to have negative attitudes towards computers. Studies on internet attitudes have found parallel sex differences, with females reporting lower levels of experience and negative attitudes (Slate, 2006).

Some America literature concerning gender equity indicates that during childhood, there is significant differences in the amount of time spend at computers between boys and girls (NCES, 2001, 2004). However when children reach fourth grade, there is a significant difference: boys spend more on computers than the girls do (Haugland, 2005).

Armitage (2008) reported that the elementary grades there is not much evidence of a gap in technology use. Girls start to avoid computers use at middle school level, and the gender gap widens as students enter high school and increase further into universities (Gehring, 2005).

According to a report on gender by the American Association of University Women (AAUW) Educational Foundation (2000), girls are significantly under represented in computers science and technology fields.

On the contrary, Tapscott (2005) urges that at the moment the males as well as the female internet users can bear similar attitudes towards the

medium. This is due to the fact that since the Net generation or N-Gen, implying to N-Geners as people born after 1977, have grown up in digital age, they have tended to take over technology.

Consequently, there is equally between the sexes on the internet. More recent studies agreeable to Tapscott are emerging. In their studies Carlsson (2004) and Jackson (2005) have also urgued that unlike the past, girls and women are as frequent internet users as boys and men.

According to United States based media report for women (2007), females are using e-mail to enrich their interpersonal relationships and enlarge their social networks. It has been argued that female internet users' affinity for electronic mail replicates the pre-existing gender differences, considering the fit between women's expressive styles and the female of e-mail (Boneva, 2008).

## RESEARCH METHODOLOGY

### Study Design

The researcher used the mixed method, also called triangulation, in this study. This method employs both qualitative and qualitative research methodologies. A qualitative research method involves the use of qualitative data such as interviews, documents and observations to understand and explain social phenomena. Qualitative research method is a method of carrying out an inquiry that emphasizes measurement. The data collected is analyzed using percentages, correlation co efficiency and other statistical methods. Close ended items were used to collect data. The answers given are counted coded and analyzed to give precise description in terms of average, ratio, ranges or percentages (Kothari1990).

Qualitative and quantitative research methods both share the goals of creating a better understanding of society through comprehending how individuals, groups and institutions act and influence each other. While carrying out this

study, the researcher employed a descriptive survey research design. The researcher chose this design because it is appropriate for fact finding and exploration with the capacity to establish the truth Nsubuga (2000) says that descriptive research has the capacity to describe the present status of a phenomenon, determining the nature prevailing conditions, practices, attitudes and seeking accurate descriptions. This design was suitable for the research because it was assessing undergraduate Kiswahili students' use of the internet for academics.

## Study Area

This study was carried out in the University of Eastern Africa Baraton in Nandi County, Mount Kenya University found in Kiambu County, Maseno University found in Kisumu County and Kenyatta University found in Kiambu County.

## Target Population

The target population under investigation consisted of information communication technology experts from the four universities and undergraduate Kiswahili students who were doing a Bachelors of Education Arts in the four universities. The study population involved fourth year undergraduates Kiswahili students from the school of Education. Ninety six (96) students were drawn from Kenyatta University, sixty nine (69) from Maseno University, sixty six (66) from Mount Kenya University and forty eight (48) from University of Eastern Africa Baraton. The researcher considered eight (8) information communication technology experts two (2) from each university.

## Sampling procedure

The researchers used two private universities and two public universities. These were selected by first stratifying them into private and public and using random sampling techniques to select the four universities.

According to (Dale, 1979), a sample of 10%-30% of the total population was appropriate for this study. Two hundred and eighty (280) participants out of nine hundred and thirty four (934) were regarded as appropriate number of respondents chosen from the fourth year undergraduate students across the four universities. This sample was deemed accurate and desirable for the study, using a self-administered questionnaire.

## Data collection Instruments and Procedures

The research instruments used to collect data were the questionnaire and interview schedules. The research instruments were piloted to check on their validity and reliability before they were used in this study.

## Validity of the study

The researcher tested the validity of the research instruments by consulting subject experts in the school of Education Moi University. Suggestions from the experts were used in making the necessary corrections and improvement.

## Reliability

The reliability of the research instruments was established by pre-test through piloting in Masinde Muliro University of Technology. This was done mainly to check on the vocabulary and the language level. The test-retest method was used to determine the reliability of the instruments in the pilot study. This was done within fourteen days. The responses were half split and the correlation co-efficiency (Pearson r), between the scores of the responses from the instrument administered on these two occasions was used to calculate reliability. Co-efficiency yielded a correlation index r= 0.055 from the questionnaires of the students and r = 0.57 from the interview schedule. This is high enough to judge the reliability of the instruments of this study.

## Data collecting Procedure

A research permit was obtained from the office of the Ministry of Higher Education before the study was conducted. There after the registrar of the four universities were conducted to inform them of the objectives of the study as well as seek permission from them to allow the participants from their institution in the study.

The questionnaire was distributed to the students with prior permission of the lecturers involved. The researcher distributed the questionnaire to the two hundred and eighty (280) students. The students were given time to fill the questionnaire. The researcher collected the questionnaire the same day. The data from the questionnaire was later on analyzed.

Face to face interviews were conducted. Forty four (44) undergraduate Kiswahili students were interviewed. All the interviews were conducted by the researcher. Eleven students from each university were interviewed using pre-determined questions. Notes were made immediately after the interview. The interview script were read and analyzed.

## Data Analysis

Statistical data analysis was used to arrive at the findings. This process was accomplished in order to assess students' attitudes towards the use of the internet. Rated scores were treated as interval data suited for quantitative analysis. Relationships between the independent variable and the responses to the items were explored using a t-test. A t-test was regarded most suitable since the study involved an evaluation of differences in the mean between two groups for each hypothesis; a t-test was most appropriate mean. Inferential statistics calculated with the aid of SPSS version12, which reports exact P-values; hence a P-value of less than 0.05 was interpreted as significant.

Returned questionnaires tools were entered into the Microsoft Excel software and checked for accuracy. The independent variable of gender was coded to aid in data entry. Data was loaded into SPSS (version 12.0) of descriptive statistical analysis for inferential statistical analysis. Higher scores represented greater agreement with each statement. This process was accomplished in order to assess the dimensions of students' attitude towards academic use of the internet. The descriptive nature of this data was compiled and computed using frequencies, percentages.

## Research results and Finding

Kenya has twenty (20) public universities and fifteen (15) private universities. The researcher used four universities, two public and two private. The questionnaire was given to provide the data needed and the sample. Two hundred and eighty (280) participates out of nine hundred and thirty four (934) were thus regarded as appropriate number of respondents chosen from the fourth year undergraduate students in the four universities. This is shown in table 1

**Table1 sample size of respondents**

| Undergraduate students | Population | Sample size |
|---|---|---|
| | 934 | 280 |

| Undergraduate students | Population | Sample size |
|---|---|---|
| | 934 | 280 |

The table 2 shows the gender of students in the sample that filled the questionnaire. It shows the number of female students is quit big compared to that of the male. This is clear indication that gender rule in

admission of students is not being followed properly. The Higher commission and the ministry of Education to ensure that equal opportunities are given are given all genders.

**Table 2 Gender**

| F e m a l e | 1 | 7 | 7 | 7 | | | 2 |
|---|---|---|---|---|---|---|---|
| M a l e | 1 | 0 | 3 | 2 | | 8 | % |
| T o t a l | 2 | 8 | 0 | 1 | 0 | 0 | % |

**Table 3 Gender and use of the Internet for Academic Purpose**

| U s e d  o f  i n t e r n e t | F e m a l e Mean | M a l e Mean |
|---|---|---|
| Always interested in using the internet | 2 . 9 | 2 . 7 |
| Enjoy learning tasks using the ir | | |
| I have found using the internet v | 1.7 | 2.0 |
| Am comfortable using the intern | | |
| I found using the internet easier | 1.3 | 1.5 |
| Working with the internet make | | |
| Enjoy getting information from | | |
| I feel happy when using the inte | 1.5 | 1.6 |
| I feel comfortable working with | 1.7 | 1.8 |
| I am knowledgeable about the ir | | |
| | 1.4 | 1.6 |
| | 1.5 | 1.5 |
| | 1.7 | 1.6 |
| | 1.6 | 1.8 |
| | 1.8 | 1.8 |
| T o t a l | 1 7 . 2 | 1 7 . 9 |

As seen in the table 3, both male and female students reported that they are users of the internet. Items with high means were always interested in using the internet with a mean of 3.0, using the internet was very clear with the mean of 2.7. The low mean was 1.3 to mean 1.4, the items were enjoy learning using the internet with a mean of 1.3 and internet was easier than using the library with a mean of 1.4 from this findings the researcher conclude that both male and female like using the internet for academic purpose.

**Table 4 Relationship between Gender and Use of the Internet**

The findings show that the average score of female students was slightly higher (17.1619), with a mean difference of 0.76. An independent sample t-test was used to establish whether there were significant differences in the means. According to the computed value of the t-statistic (-1.478) was insignificant at 0.05 level of significance. The findings therefore imply that

although female undergraduate Kiswahili students' use of the internet is slightly higher than the males, the difference in the mean is not statistically significant. No significant difference was found in the subscales (p>0.05); therefore the null hypothesis was not rejected.

**Summary**

The use of the internet is not dependent on their gender. The male and female students from the four universities have similar use of the internet for academic purpose.

| Gender | Number of students | Mean | std. Deviation | t-statistics | Df | p-values |
|---|---|---|---|---|---|---|
| Female | 177 | **17.1695** | **4.04022** | | | |
| Male | 103 | | | -1.478 | 278 | .141 |
| Used the internet | 3 | 0 | | 7 8 . 9 % | | |
| Did not use the internet | 8 | | 2 1 . 1 % | | | |
| Total | 3 | 8 | 1 0 0 % | | | |

**Male**

| Use the internet | 2 | 0 | 6 4 . 5 % |
|---|---|---|---|
| Did not use the internet | 1 | 1 | 3 5 . 5 % |
| Total | 3 | 1 | 1 0 0 % |

University of Eastern Africa Baraton

**Female**

| Used the internet | 2 | 0 | 6 6 . 7 % |
|---|---|---|---|
| Did not use the internet | 1 | 0 | 3 3 . 3 % |
| Total | 3 | 0 | 1 0 0 % |

**Male**

| Used the internet | 1 | 0 | 5 2 . 6 % |
|---|---|---|---|
| Did not use the internet | 9 | | 4 7 . 4 % |
| Total | 1 | 9 | 1 0 0 % |

**Conclusions**

There is no significant relationship between gender and undergraduate Kiswahili students' use of the internet for academics. This conclusion provides further evidence supporting previous studies of (whong, 2007) and Hargitai (2005) who also argues that there is no significant relationship between gender and students use of the internet.

**Recommendations**

1) Free internet access should be provided at the university.
2) There should be a policy in which all students taking ICT classes should be provided with a personal computer at a subsidized price.
3) Students' loan schemes can also be initiated to enable students acquire personal computers.

4) A need to protect students should surfing unwanted materials be considered.

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