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Ethical usage of Internet facility by Students of Information science at Jimma University

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Introduction

The Internet is a global system of interconnected computer networks that use the standard Internet protocol suite to link several billion devices worldwide. It is an international network of networks that consists of millions of private, public, academic, business, and government packet switched networks, linked by a broad array of electronic, wireless, and optical networking technologies (Wikipedia, 2014). Leiner, etal (2009) writing the history of internet suggested that it has revolutionized the computer and communications world like anything as never before. They further said that the Internet is at once a world-wide broadcasting capability, a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers without regard for geographic location. The burning issue is the ethics that is needed to be included in the section of internet usage when allowed to accessing. In this coherence of notion, ethics is moral principles that govern a person's behavior or the conducting of an activity (Oxford, 2014). On one of the research guidelines of the marketing research association indicated that even if rapid growth of the Internet has opened dramatic new opportunities for collecting and disseminating research information worldwide. A number of ethical and technical issues must be addressed if the Internet is to be used effectively and responsibly for different purposes (Marketing Research Association (MRA), 2000). The association further put the ideas forward and supposed that the fact that the Internet is inexpensive to use and difficult to regulate means that it can be open to misuse by less experienced or less scrupulous organizations. There have been different legitimate and illegitimate ethical usages of internet facility.

Statement of the Problem

There are many ethical issues that need to be addressed in the process of internet usage. As widely known, it is clear to have a website management policy at a University level which provides different internet facilities (E-mail, social networks and others) in which to control any unauthorized access to the facility of the internet for the campuses. So the University may have the management principles integral with the policy. So Jimma University (JU) has different kinds of colleges social and natural science, institute of technology, school of law and governance and many others. Under the natural science, the department of Information science exists and provides computer and other specific field laboratory services.

Cybercrimes and cyber-vandalism, which are one of internet worry, can potentially affect anyone using the Internet and anybody who seeks to learn through the help of internet facility (Kizza, 2001). According to Whittier (2006), even if cyber ethics are the "brakes" of respect and responsibility on the "accelerator" of curious minds wanting to find, see, hear, and know, it always creates a behavioral and perceptional change among students who are seeking to educate themselves through internet and find something entertaining. Computer- assisted education raises ethical concerns about the adequacy and appropriateness of methodological ways of interventions in the learning and teaching process to interrupt and corrupt suddenly. For example text, audio, and video communication of social- emotional information was significantly affected depending on the students' deflected perceptional usage of internet facility for the purpose of educational matters (Maheu & Gordon, 2000). Academic dishonesty because of internet ethics is an important issue across colleges and universities of different countries where significant numbers of students, through their internet facility usage, admit to some type of academic fraud and academic integrity is not an issue. It is always a question when using copyrighted material online which usually puts in legal and ethical dilemmas of the internet usage to consider (Wilczenski & Coomey, 2006). The information science department has even its own regulations and rules even if it is not specific by which the students under it are guided through their usage of internet.

Research Questions

1 What are the internet facilities that are commonly accessed by the information science students?
2 What are the ethical violations that have been conducted by the information science students?
3 What are the ethical advantages in using internet facilities for the information science students?
4 What are the ethical perception information science students have regarding their usage of internet?

Objective of the Study

The general objective of this study is to assess the ethical usage of internet facility by information science students, JU while the specific objectives are to:

1 Identify the internet facilities which are mostly accessed by the information science students.
2 Assess the ethical violations which have been conducted by the information science students.
3 Find out the ethical advantage in using internet facilities for the information science students.
4 Find out the ethical perception of information science students towards their utilization of internet.

Scope and Limitations

This study is limited to only the study of ethical usage of internet facilities by information science students. And it is also limited to the JU, main campus on Information science students. The limitations are shortage of reference books in that library which was required for referring past researches or literatures that have been done on this area, shortage of time and insufficient fund.

Significance of the Study

After the completion of this study, there are a number of expected results (significances) that account for the success of the ethical standards for the usage of Internet facility by the students of information science department. The significances could go to specifics of various fields of the students' internet usage experiences. So the students' perception towards the ethics would improve in area of usage of internet facilities. The study would also help the ICT professionals to set ethical standards towards the usage of internet usage by the JU. The study significantly helps the information science students from entering into cyber addiction crisis. In this case, the study could be a help to other researches that might come this area of study who are looking for this type of information as a reference.

Review of literature

Jimma University is a public higher educational institution established in December 1999 and it offers various programs and courses of study, which lead toward degrees in different fields. The Internet is changing the method of communication. The growth of internet has been one of the most remarkable phenomena of the last century. Internet requires a new ethical modality for human interactions in the highly technological age (Hauptman & Motin, 1994).

They further added that internet and ethics are useful metaphors, practicable constructs that allow us to navigate the electronic byways and partake of new and often bizarre experiences. Advances in technology and increasingly complex and sophisticated systems do not alter our basic human commitments to ourselves, our fellow human beings, animals, and the environment.

Going on the Internet is like going to another world. You can find information for homework or play games. You can keep up with your favorite sports teams. You can stay in touch with your friends or chat with people who like the same things you do (Diane, 2008). Even if all the above advantages are available for us, the indicated writer showed that we need to consider ethics. Ethics are the rules you use in life to help you decide what is right and wrong. He switches the idea to Cyber ethics is which is how you act when you are on the computer. Problems here are often similar to ones you've faced in real life. He also further and deeply described that if you download a song off the Internet without paying for it or without permission, that's considered by many people as being inappropriate and similar to stealing, particularly because there is no way to track how the creator of the song should get paid for his or her work.

Janna (2005) asks "Do students know what they can or cannot do with intellectual property on the internet?" And he goes to illustrate those parents or other companies are unclear about what is and what is not ethical when dealing with the World Wide Web. Many students demonstrate poor judgment when using information and communication technology or internet. He questioned another matter "Has the internet brought about a change in core values regarding cheating or is it simply easier for students who would have cheated anyway?" And similarly describes responsible persons as educators, we need to address these important issues as well as some basic questions, including a fundamental one. Therefore, the research is being carried out on ethical usage of internet facilities by information science students.

Methodology

Depending on the need of the study, the illustrative case need of the students' behavior towards the study and other valuable factors, the study design that has been employed for this is a descriptive study (i.e. particularly cross-sectional survey type). The data has been collected through questionnaires, observations and interviews.

Population and Sampling Technique

The target population of the study which was taken from JU, Information Science Students all batches includes 77 students (1st year), 55 (2nd year) and 78 (3rd year) comprising total population of 210 for this study. Non–probabilistic quota sampling techniques is used for assigning different quota size to a different group or bundle of people based on specific requirement that has been applied to select the student respondents from the three years of information science students. From 210, a total of 50 samples represent approximately 24%. The convenient sampling technique was adapted for administering the questionnaires on the 50 students present in the computer labs at all batches at the time of data collection and the computer lab technicians and ICT professionals of the department of information science. Some of the lab technicians and ICT professionals were interviewed as a part of the studies sample; to collect other relevant data which the student may not have full knowledge of. Therefore, the sample size of 50, which represents 24% of the study population, was considered appropriate and adequate for this study.

Questionnaire was used to assess the view and opinions of student users of the internet and ethical issues associated with the usage. Questionnaires were delivered regarding the problems the information science students were facing to go with the ethical standards of internet facility usage. An interview was also conducted randomly with the information science laboratory technicians and the ICT supporting teams. It was used for the purpose of determination of very important and deep understanding of the students towards internet usage and ethical perception towards it. The study has used both primary and secondary data sources. The secondary sources are in electronic and printed formats of books, encyclopedias, newspaper, magazines, different internet journals etc. Observation approach was also done of the usage of the internet facility by the information science students for the consecutive 5 weeks in all the computer laboratories. For the purpose of physical and real events occurrence observation in the computer labs, the researcher or onlooker was present for deliberate noticing of the facts.
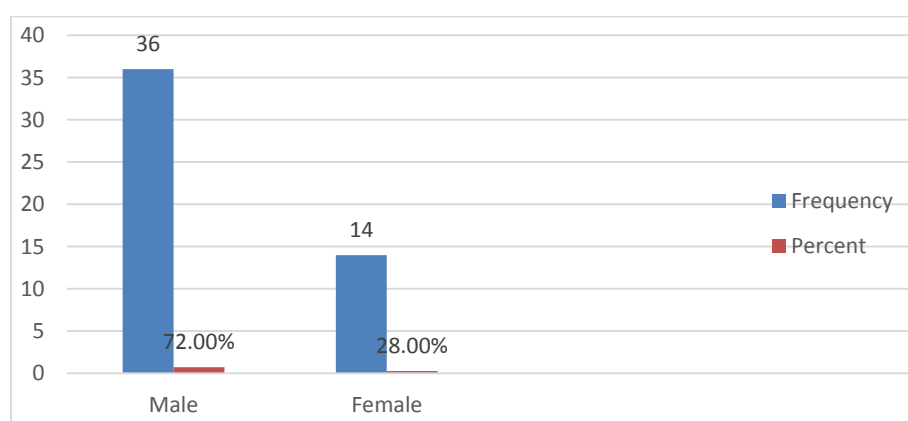
Results and Discussions

This chapter deals with analysis, interpretation, results and discussion of data collected from respondents in the process of the study. Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it. Tables, graphs and textual write-ups of data are all forms of the data analysis. These methods are designed for

processing and extracting the data, so that information collected can be interesting information without needing sorting through all of the data from their own.

The questionnaires were distributed to 50 (100%) samples or respondents from all batches of JU, Department of information science, with general questions like gender, age, educational qualification and work experience. Out of 50 (100%) respondents, 36 (72%) were male and 14 (28%) were female. Among those students, 10 (20%) were 1st year, 20 (40%) 2nd year and 20 (40%) 3rd year students. Other study population, 3 (50%) were ICT Professionals and 3 (50%) were computer lab technicians, were questionnaires are distributed. Accordingly they are tabulated below:

Figure. 1 Gender wise Distribution

From Figure 1 it is concluded that the male number forms the majority of the respondents in the internet computer lab usage.

Table. 1 Distribution of Age Range of Students' respondents

S.No.	Age Range	No. of Respondents (%age)
1	<=20 years	7 (14%)
2	21-23 years	34 (68%)
3	24-27 years	9 (18%)
	Total	50 (100%)

Table. 2 Distribution of Age Range of ICT staffs and computer lab technicians

S.No.	Age Range (years)	No. of Respondents (%)
1	< 25	1 (16.66%)
2	25 – 30	5 (83.33%)
3	30 – 35	-
4	35 - 40	-
5	Above 40	-
	Total	6 (100%)

From the above Table 1, in view of the response of the respondents it was indicated that most of the respondents are from 21-23 years representing 34 (68%) which form the majority of the respondents who uses the computer lab internet facilities, followed by from 24-27years range representing 9 (18%) respondents; while less and equal to 20years representing the rest of the respondents with14% respectively.

From the Table 2, it is found that most of the respondents are 25-30 years representing 5 (83.33%) in the department ICT and technician staffs, followed by less than 25 years representing 1 (16.66%) respondent. Data collected regarding the experience and educational qualifications of ICT and lab technicians is given below in Table 3 and Table 4.

From the Table 3, it is found that most of the respondents have an experience of 1-5 years representing 4 (66.66%) which form the majority of the respondents experiences in the ICT and technician staffs, followed by 5–10 and 10 years above representing 1 (16.66%) respondents each respectively.

From the Table 4, 5(83.33%) respondents have Diploma educational qualification; followed by 1 (16.66%) respondents that have an ongoing degree program in different fields of discipline or study which makes up the rest of the respondents.

Table. 3 Work Experience of ICT lab Technicians

S.No.	Work experience	No of respondents
1	Under 1 year	0 (0%)
2	1 – 5 years	4 (66.66%)
3	5-10 years	1 (16.66%)
4	10 years or above	1 (16.66%)
	Total	6 (100%)

Table. 4 Educational Qualification of the ICT staffs and lab

S.No.	Qualification	No. of Respondents
1	Certificate	0 (0%)
2	Diploma	5 (83.33%)
3	1st Degree	0 (0%)
4	2nd Degree	0 (0%)
5	Other	1 (16.66%)
	Total	6 (100%)

Data has been collected about the awareness of ethics on the internet. The same is given below in Table 5:
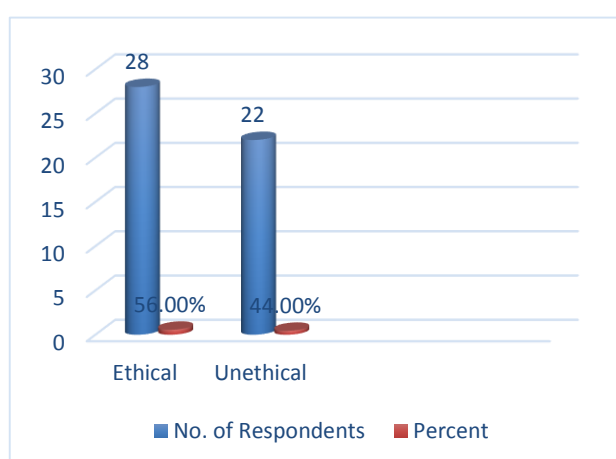
Table. 5 Awareness of Ethics of internet

S.No.	Awareness	No. of Respondents (%)
1	Literate	38 (76%)
2	Illiterate	12 (24%)
	Total	50 (100%)

From Table 5, 38 (76%) of the respondents said that they know about ethics of internet while 12 (24%) said that they are unaware about ethics of internet. It shows that majority of the respondents (students) know about ethics of internet at large even if some are illiterate about cyber ethics (ethics of internet).
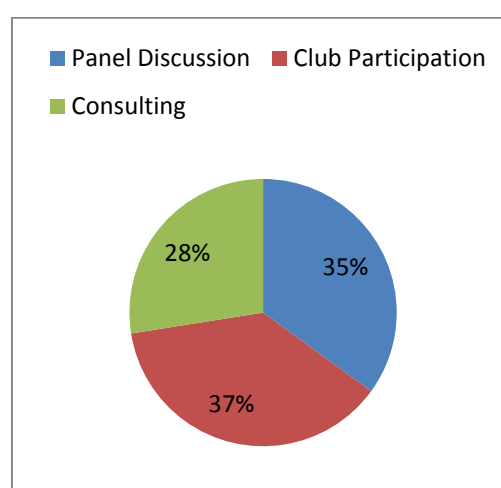
It was requested about the number of people who followed ethics, while using internet and also where they attended and learned the ethics. The collected data has been given below as Figure 2 and Figure 3:

From Figure 2, 28 (56%) of respondents are following ethics of internet when using internet like Email and others, while 22 (44%) are unethical or do not follow ethics while using email and reasons they informed as, they don't know about ethics of internet.

Figure. 2 Ethics when browsing internet, Email and others

Figure. 3 Ethical activities done by the students

From Figure 3, 19 (37.5%) of the respondents have done a club participation in Jimma or other place in lower grade whereas 17 (34.5%) respondents had a panel discussion about ethics while 14 (28%) respondents said that they have consulted their computer laboratory

technicians. Therefore it can be concluded that majority of the respondents (students) act ethical.

The advantage of ethical usage of internet facility has been requested with mostly browsing website by information science students in the questionnaire. The collected data is given below in Table 6 and Table 7. However, from Table 6 it is concluded that 28 (28%) (majority) of the respondents give the importance of using internet ethically for accessing relevant educational materials necessary, whereas improving learning skill and development and helping students to be good is of 25 (25%) each. The rest 22 (22%) said that they are using internet ethically to save time and money for themselves.

Table 7 shows that the mostly browsed website by information science students is from the educational or academic site is 39, followed by entertainment websites which counts up to 22, while websites that are related to nationalism or ethnicity gives up to 10 and the rest (6) is adult explicit materials that deliver content of sex and pornography. Therefore it is concluded that majority of the respondents browse educational or academic websites followed by entertainment and ethnicity sites.

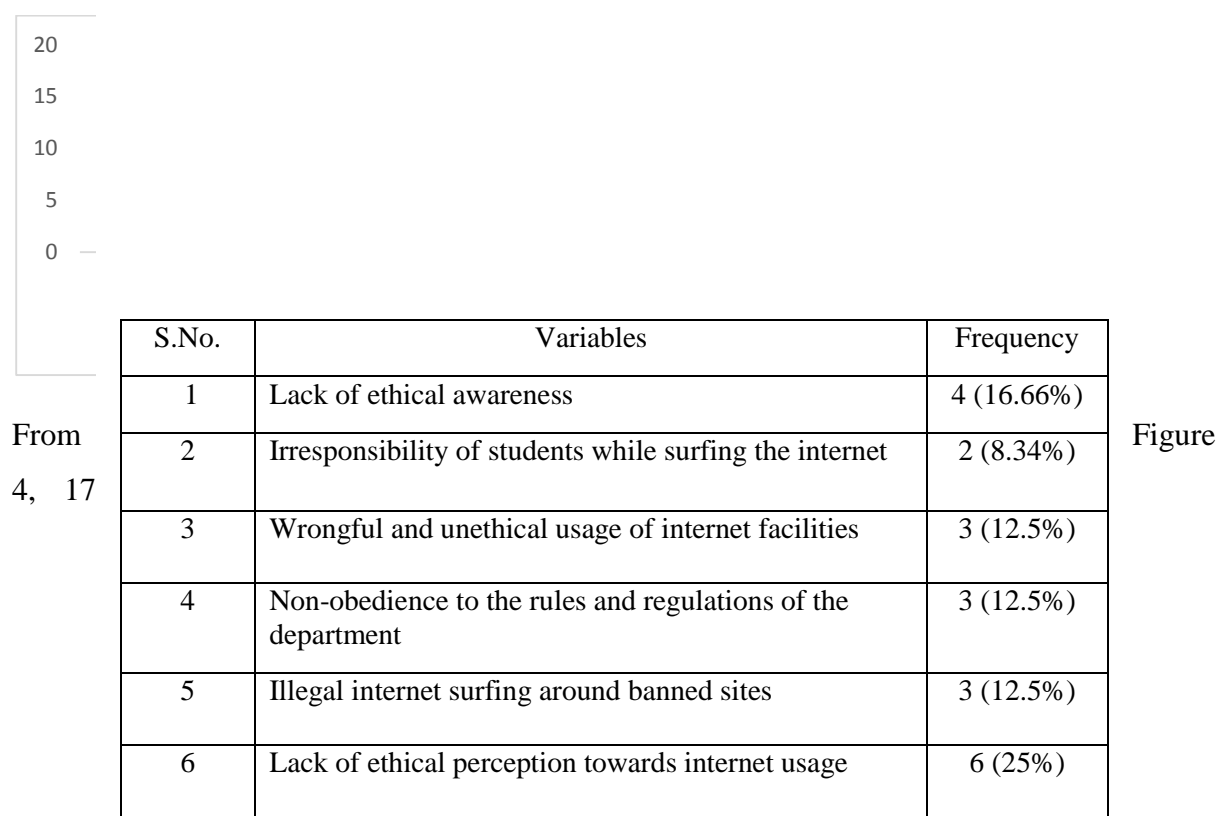**Table. 6 Advantage of ethical usage of internet facility**

S.No.	Advantage	Frequency
1	Improving learning skill & development	25(25%)
2	Accessing relevant educational materials	28(28%)
3	Saving time and money for the students	22(22%)
4	Helping students to be good	25(25%)
	Total	100(100%)

Table. 7 Mostly accessed internet facilities by Students

S.No.	Browsing Areas	Frequency
1	Nationalism or Ethnicity sites of programs	10 (12.98%)
2	Educational or academic sites	39 (50.64%)
3	Adult Explicit Materials	6 (7.79%)
4	Entertainment (like Film, Football etc.)	22 (28.57%)
5	Other sites	-
	Total	77 (100%)

Students' perceptions about ethics towards internet facilities have been requested in the questionnaire. The collected data is given below as bar diagram Figure 4:

Figure. 4 Students' opinion or perception of Ethics towards Internet Facilities

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20
15
10
 5
 0  —
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From
4,   17

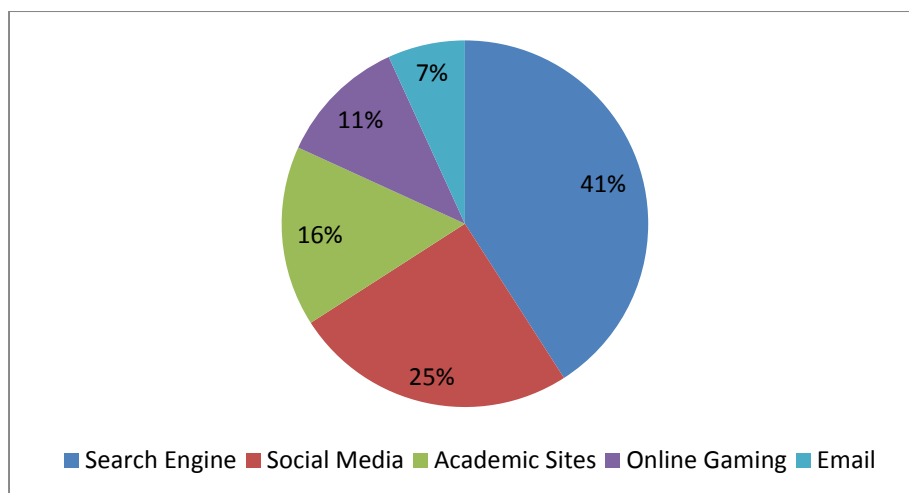| S.No.	Variables	Frequency
1	Lack of ethical awareness	4 (16.66%)
2	Irresponsibility of students while surfing the internet	2 (8.34%)
3	Wrongful and unethical usage of internet facilities	3 (12.5%)
4	Non-obedience to the rules and regulations of the department	3 (12.5%)
5	Illegal internet surfing around banned sites	3 (12.5%)
6	Lack of ethical perception towards internet usage	6 (25%)

Figure

(36.95%) of the respondents have a very good perception against ethics of internet facilities, while good perception by 13 (28.26%), whereas 8 (17.39%) of the students said that they have an excellent view or perception of ethics and 4 (8.69%) responded with fair. There were no response labeling poor towards ethics of internet facility.

Table. 8 Students' Status of misconduct by the ICT staffs and lab technicians

7	Restricted site visiting	3 (12.5%)
	Total	24 (100%)

From Table 8, regarding the misconduct of information science students on the internet facility judged by the ICT professional and computer lab technicians, the first and top misconduct done by students represents lack of ethical perception towards internet usage with 6 (25%). The second and other larger area of misconduct that happened is ethical awareness of students 4 (16.66%). Wrongful and unethical usage of internet facilities, non-obedience to the rules and regulations of the department, illegal internet surfing around banned sites and restricted site visiting of the students' behavior indicated by the technicians and ICT staffs amounts up to 3 (12.5%), which is followed by 2 (8.34%) about the irresponsibility of students while surfing internet facilities.

Figure. 5 Internet Usage Areas of Information Science Students

From above Figure 5, more than 40 % of the respondents have indicated that they mostly use different search engines (Google, Ask, yahoo and so on) to search and retrieve to do their activities. 25 % respondents use social media (Facebook, Twitter and others) followed by 16% use academic web sites and 11% use for online gaming. The rest of the respondents 7% mostly use email for day to day communication.

Interpretation of Observation

A series of systematic observation for consecutive five weeks on all computer laboratories was conducted. At the time of exam or assignment writing, students were dedicated to the use of online internet facilities that are academic. Most of the students are obeyed the rules and regulations of the department towards ethics of internet facilities by not involving in regular misconduct / violations. However there is no rule that indicates obligations or responsibilities of how students should behave in using internet facilities in the computer laboratories. Most of the students are not aware of the techniques and ethics of how to deal with searching retrieval operations of what they want on internet. Students on non-exam or free time, were mostly engaged to using social media (i.e. Facebook, Twitter and so on), online movie and so on under the sight of the computer laboratory technicians or assistants whereas some students were committing violations of the Jimma University website policy by browsing restricted and banned adult material websites out of the technicians or assistants' sight and using Facebook under the sight and knowledge of the laboratory technicians on suspended time through hacking browsers (like Tor browser).

Discussion on Interview Report

Jimma University, Department of information science has three computer laboratories with few technicians (assistants) who are assigned to each of the three computer laboratories who closely work with the students and college and department ICT professional (supporting teams) as well as with the instructors. The researcher has interviewed two of the computer laboratory technicians and one ICT professionals on the current trend of ethics of internet that the students are operating. The researcher asked about ethics of internet awareness of the students have ever, all of the individuals have answered with confidence that students have only partial knowledge or awareness regarding ethics of internet facility. They added that some of the students, in almost all of the computer laboratories, tend to violate the rules and regulations. Two of the computer laboratory technicians, the researcher interviewed, have clarified that most of the students' browsing area of internet facilities are, E-mails, online education, social media and gaming. A male ICT professional who closely work with all of the computer laboratory technicians has said that third year laboratory is the most misconduct occurring laboratory comparing the other two.

Major Findings

It is found that internet facilities have profound effects on ethics of internet usage further like improving learning skill in case of academics as well as accessing relevant educational materials, saving time and money for the students and helping students to be good. The study has resulted in finding out violations that are committed by the students such as irresponsibility while accessing internet, lack of perception on the internet usage, illegal surfing and wrongful and unethical internet usage. Students have indicated a good level of ethics towards internet, interviews and observation have disproved that the students have lower ethical level of internet usage. The websites that most students use are academic materials (CCNA, Cisco and so on), search engines (YouTube, Google, Ask, and Yahoo) and social Medias (Facebook and Twitter for entertainment purpose). The findings of the present study reveal that, in the computer laboratories of the information science, several ethical behavioral misconducts happen due to lack of ethical awareness, perception and responsibilities. Limitations and suggestions have been put forward for further study in this area.

Conclusions

Based on the finding of the study from the respondents' view, it can be concluded that most of the students are literate or have a good perception towards the ethical usage of internet facilities and related ideas about ethics. The ethical advantage of usage of internet facilities are to be able to use time efficiently, create more opportunities for students to use academic and entertaining websites for their better academic performance. Students of information science are mostly ethical while using internet facilities like email, search engine and the like. However students are always doing misconducts in the night session which are out of the technicians' sight. Students have a lower accounts, status and opportunity of participating in ethics club about internet facilities, and in panel discussion about ethics of internet (cyber ethics). Students have a very low habit of consulting physically with computer laboratory technicians or the ICT professional about ethics of internet or how to use internet ethically. Mostly students' browsing areas are search engines, social media and academic websites in descending order respectively. Students' responsibilities towards using internet facilities have scored a lower level of ethical standards required from these students. Students who are exposed to the internet facilities are vulnerable to the loss of feeling responsible towards ethics of internet. Lack of awareness towards ethics of internet facilities is the most leading misconception of students which is created beyond the limits of students' knowledge which was judged by the ICT professional of the department of information science. The technicians and ICT staff should be able show the students to continue and maintain the importance using internet facilities ethically.

Recommendations

Based on the research findings, observations, and respondents' standpoints, some suggestions and recommendations for improving the situation are made:

1. The department should be able to teach a lesson on how to use internet and give guidance to ethical usage of the internet facilities. A lesson (print or e-copy) on ethics of internet should be given to the students of information science.
2. The department computer laboratory technicians should get support from the department to maintain a good or possible way for the students to follow ethical guidelines that should be set by the department of information science.
3. The department of information science should hire or request the Human resource management office for a reliable and well-skilled professionals and labor in order to consult, give and guide the students on the area of internet ethics and related matter.

4. Jimma University should be able to monitor the department computer laboratory misconduct activities regarding the usage of students on the internet facilities so that the banning of more sites could be possible.

5. Since Jimma university internet bandwidth is trafficked with a lots of unwanted and illegal web surfing by the students, the campus should create a club that promote the importance of ethical usage of internet facilities so that everyone might have good understanding on ethics of internet.

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