THE STUDENTS' EXPERIENCES OF ETHICS IN ONLINE SYSTEMS:
A Phenomenological Study

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ABSTRACT

Cyber ethics is the philosophical study of ethics pertaining to computer networks encompassing users' behavior, what networked computers are programmed to do, and how this affects the individuals and the society. This study aimed to investigate the students' experiences of ethics in cyber systems.In the present study, the researchers conducted in-depth, semi-structured interviews in a sample of students in JahromUniversity of Medical Sciences between November 2012 and February 2013. The interviews focused on the students' experiences of online ethics. Content analysis techniques were used to code and analyze the study data.The data were gathered from 25 interviews and 5 focused groups. The extracted codes were classified into two categories of positive and negativeimplications. The main themes of the study included ethicalimplications, cyber curiosity, limitation, virtual liberty, and development of ethics in the cyber system. Considering the importance ofethicsin thevirtual systems, it is necessary to train the studentsregardingthe optimalutilizationof thecyber space. Also, the students should be trained regarding the useof technology invarious scientific fields.

Keywords: Cyber ethics, students, phenomenological study.

INTRODUCTION

Cyber ethics is considered in applied ethics. In a general view, online ethics is an interdisciplinary issue which requires being familiar with ethics as well as computer, particularly information technology (Amirkhani, Vahdat, & Khezrian, 2010). Online ethics focuses on the problems caused by application and expansion of computer and information technology(Shahriari, 2009).

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James Moor (1985) states that major problems in cyber ethics result from the fact that we do not know what measures to take for application of information technology. In fact, we have developed great capabilities in using computers, but we have no or insufficient policies for our behavior in this regard (JAMES H MOOR, 1985). Hence, the above mentioned explanations make it clear that these technologies will have a profound impact on the future of human society and will change all domains of human activity(Shahriari, 2007).

Compared to other research methods, internet research has outstanding features including anonymity which has been a persistent concern for Internet Research Association. Since access to users' information is easier, privacy and issues of user trust are at risk in internet research, among all the hazards involved.

Problems for obtaining informed consent from users are even more challenging for researchers. Multiple identities and nicknames would make it difficult to identify .People and would pose further ethical challenges to internet users. Thus, it is essential to undertake more research for improving cyberspace(Thorseth, 2003) .

Cyber ethics involves how the users make use of technology and its outcomes (Amirkhani et al., 2010). In fact, internet is a combination of resources and technology which is considered as an infrastructure and facilitative for service provision. However, wide dependence on internet for various daily activities, such as communication, occupational cooperation, commercial interactions, entertainment, and education, and non-authoritative utilization of this communication resource can be a major threat for the society and particularly the students who spend more time using computer and internet(Sohrabi& Khanlari, 2009). In universities, internet can facilitate cheating to a great extent(Amirkhani et al., 2010).

Nowadays, internet is widely utilized as an educational instrument in universities. Yet, it has been accompanied by a weak understanding of ethical issues, lack of awareness, and lack of policies to make it in line with the pedagogical goals(Baum, 2005). In other words, ethics have not been developed simultaneously with the information technology(Amirkhani et al., 2010). One study showed that a considerable number of students, particularly freshmen and male students were involved in improper scientific works using internet (Baum, 2005; Szabo & Underwood, 2004).

Moreover, comparison of the study conducted by Amirkhani et al. on the relationship between cyber ethics and 5 personality patterns of the students in Iran to a similar study performed in Islamic international university of Malaysia showed that the Iranian students were involved in more unethical behaviors in comparison to the Malaysian ones (Amirkhani et al., 2010).

Considering the fact that computer and internet are among the most widely used instruments in all the occupations, policies should be developed to observe ethics in using these instruments.

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The small number of studies on this issue also reveals the unethical utilization of these instruments among the students, which might be due to the fast development of information technology as well as lack of ethical policies and guidelines. Furthermore, wide utilization of internet and having easy access to the information resources has resulted in various unethical behaviors among the students (Amirkhani et al., 2010). Up to now, a limited number of studies have been conducted on this issue and no qualitative researches have been performed on the ethical issues in using internet among students. Therefore, the present study aims to describe the students' experiences regarding online ethics; so that the rate of unethical issues in using internet can be determined and strategies can be proposed for observing ethics in this regard.

MATERIALS AND METHODS

The present qualitative, phenomenological study aimed to describe the experience of the students of JahromUniversity of Medical Sciences regarding ethics in virtual systems. The study data were collected by 25 individual semi-structured interviews and 5 focused groups in various majors. The interviews were started by posing the question "What comes to your mind by online ethics". Then, the interviews were continued by the students' experiences and examples in this regard.

The study participants included the students of medicine, nursing, operating room, and anesthesiology who had been selected through purposive sampling. The study samples were selected until reaching the point of data saturation. In doing so, the students who were familiar with information technology were interviewed first and then, other students were selected by snowball method. After all, considering the obtained issues, focused groups were also used if necessary.

Focused groups were guided by the researcher in an informal condition (in-depth, semi-structured interviews); so that the group's dynamicity enhanced the quality and quantity of the data. It should be noted that this type of interviews is specifically utilized in qualitative researches. In this study, the interviews were recorded using a voice recorder. Then, they were transcribed and analyzed through qualitative content analysis which is appropriate for extracting the concepts and meanings. In this way, the transcriptions were read for several times and the primary codes (or main concepts) were extracted. After that, the primary codes were located in different groups based on their similarities and differences. Then, the codes were matched with the participants' words, encoded, summarized, and categorized and the themes were extracted(Graneheim & Lundman, 2004; Hsieh & Shannon, 2005). In general, the accuracy criteria in content analysis include credibility, transferability, trustworthiness, and conformability which are equivalents of internal validity, external validity, reliability, and objectivity. Therefore, in order to determine the validity of the research, the participants were required to review the data and the specialists in the field were requested to investigate the data. For peer check also, the content of the interviews, codes, and categories were given to two faculty members. Two experts in qualitative researches provided their opinions, as well.

In order to increase trust, the researcher created an appropriate relationship with the participants and mentioned the issues desirably and without any censors. The researcher also provided the ground for enriching the data by allocating enough time, creating intimate relationships with the participants, and creating a friendly atmosphere. In addition, she expressed the issues, experiences, and thoughts such a way that decreased the personal biases and increased the research credibility. Considering ethics also, the researcher observed the confidentiality principles and tried to satisfy the participants regarding their time and presence in interviews and focused groups(Graneheim& Lundman, 2004; Hsieh & Shannon, 2005) .

RESULTS

A total of 90 codes were identified from the individual interviews and focused groups. The first theme identified in the present study was ethical implications in virtual systems. In this regard, the students mentioned ethical implications in this system and expressed their opinions regarding its concepts and principles. These implications can be classified into positive and negative implications. The ethical implications mentioned in this study included experience, keeping one's personal privacy, hacking, misusing information, promiscuity, chatting, internet addiction, improper use of various sites, double-edged knife, keeping virtual space and personal control, publication of others' private information, lack of trust, false identity, expansion of relationships, visiting unethical websites, ethical norms, controlling personal space, individual conscience, curiosity for no reason, not entering others' personal privacy, and security.

One of the medical students in the focused groups stated, "Ethics is how to use". However, some students had inaccurate mentalities concerning using virtual systems and expressed the lack of one specific definition and reference in this regard.

For instance, one student in the focused groups said, "The meaning of ethics is not clear. We cannot provide a convincing definition. When we say ethics, ethical deviations in the virtual system come to our minds, while ethics is something quite different". One other student mentioned, "Our problem in describing ethics in this system is lack of a reference for defining ethics. Each individual defines ethics based on one's mentality. For me, ethics is the power to choose, what website to visit, how to use".

What is observed in experiences, understandings, and concepts is the manifestation of ethics in virtual systems. Nonetheless, the negative aspects of this theme can be observed in the core of these ethical manifestations.

These negative dimensions can explain the main reasons for failure of ethics and ethical processes in using virtual technologies. The categories identified in this regard included curiosity, limitation, and virtual liberty.

According to the present study participants, curiosity and attractiveness of the virtual space can lead to utilization of this space both positively and negatively.

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One of the study students stated, "You are after a specific issue in the internet, but you see a picture. You open it and see everything. You have searched a lot but have forgotten the main issue. Curiosity is in every one's nature. Internet is also attractive and you can find lots of attractive things in the internet, even people's private pictures". One other student mentioned, "Since some people do not do recreational activities, they waste their time surfing the net to have fun. They see an image, a site, a piece of music and try to satisfy their curiosity. Some people are impatient, some lack love, some are under pressure and stress. Internet is attractive for people with different personalities". Also, some students believed that internet was the only way to compensate for lack of entertainment, lack of recreational activities, and loneliness.

One other category identified in ethical implications was limitation. The study participants indicated that when limitations are imposed on using the virtual space, people will be more interested in having access to it. It can also lead to utilization of filter breaker software. One of the female students of anesthesiology mentioned, "I, as a student, have a specific subject in my mind. I go for it and find it. If I have access to the site, I find the issue easily. But when facebook, youtube, etc. are filtered, we have to find other ways to enter. I know that in case the limitations are removed, many people will ignore the ethics. But this can be eliminated by training and culturalization. The authorities are imposing limitations instead of culturalization and solving the problems".

Virtual liberty is another theme identified in the current study. Considering the students' viewpoint, unidentified identity of the individuals, accessibility, having access to others' information, hiding the truth, presenting unreal information, uninternalization of ethics, and people's liberty in using the virtual system can provide the ground for a large number of ethical problems in this space. Considering the scientific atmosphere of the universities, some students believed that liberty in this space caused the individuals to ignore limitations and ethical guidelines even for scientific purposes and to consider it as a normalized conflict.

One of the study participants stated, "We search for articles because the professors ask us to. We can easily copy the articles. No one searches for real resources. It does not matter to copy for scientific works".

One of the problems of liberty in the virtual space is entering the individuals' privacy and using and publishing their private information which can provide the ground for unethical conflicts in this space. One of the participants of the present study said, "In facebook or other sites, some people post others' poems or sayings on their own page without mentioning the main source. This space is free and every one can misuse it".

One of the highly ethical dimensions of using the virtual system is the users' capability in hacking others' information. One of the male medical students stated, "Internet is an industry and hacking is a business. It is highly profitable. Even being unethical has become important from commercial point of view because everything is free".

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Based on the students' perspective, using websites such as facebook can have various positive and negative dimensions; from application in scientific works, presenting and publishing scientific information, and creating an appropriate space for discussing new points to unethical utilization by presenting non-scientific, unreal subjects, disseminating lies, insulting, and desecrating. Furthermore, liberty in this space can provide the opportunity for communication. However, where the individuals are not aware of each other's real identity, this can lead to misuse and unethical behaviors.

One of the study participants declared, "I was chatting in Yahoo Messenger about a scientific subject. My partner was speaking well and was giving good explanations.
But after 10 minutes, he started to use dirty words. When I asked for the reason, he told me that he had made fun of me from the beginning. This shows that people do not show who they really are in this space and this is one of the main problems in the virtual system". One other student explained, "I was making myself ready for the university entrance exam and I was under a lot of stress and pressure. So, I decided to chat in my free time and that was the only thing that relaxed me in that situation. But my partner told me that he was tired of me right three weeks before the exam. I was so stressful that I did not do well in my exam".

Some participants believed that virtual liberty was related to other ethical problems, such as ethical deviations in communications, hiding one's identity, sexual freedom, and promiscuity which would eventually lead to verbal relationships, sexual abuse, and promiscuity. Also, they considered unreal information, false identity of individuals, and disseminating lies as the main problems of this space which could result in change in the individual's identity, breakdown of the family system, and social misconduct.
One of the other study themes was development of ethics which can be expressed in three categories of social culture, role of family, and religion. Conflicts in social and family culture, lack of culturalization in the media, uninternalization of ethics in using the virtual space, attractiveness of internet, and separation of the family members by spending time in this space all provide the ground for unethical behaviors in this environment.

One of the participants of the present study stated, "Lack of induction of culture and correct nurturing in using the virtual space cause the individuals to go for ethical issues. Families should accompany their children to use the virtual space correctly". Also, one other study student mentioned, "Unawareness of the family and society is highly important. Parents should know about technology more than their children do. They should know what their children do. When I surf the net until late at night, my father asks me what I am doing. When I answer I am downloading something, he says OK no problem because he does not know what download means".

Accompaniment of the parents, their familiarity with technology, culture, and sound nurturing framework in identification of the red lines as well as the family's cultural privacy are all among the strategies which can improve ethics in the virtual space.

The study students also pointed to overcoming loneliness, understanding the pressures, environmental stresses, accompaniment, and supervision in the virtual space. Overall, the study participants believed that the families should be modern and be ready to encounter anything. Religion can be considered as a preventive factor in correct utilization of the virtual space. For instance, one of the male medical students said, "Religion is a preventive factor. Ethics should be considered from religious and Islamic point of view. If a person has good religious framework, s/he will not go for any news. Religion describes the ethics and shows the red lines". According to the present study students, the educational system plays a critical role in induction and internalization of the ethical processes in correct application of technology. One of the female students mentioned, "Instead of copying, we can learn to search and study for gaining more knowledge. Inefficiency of the educational system and lack of the spirit of research in the students can be a basis for inefficiency in research and scientific processes".

Furthermore, some participants referred to the role of time, experience, and cognition in evaluation of application of technology. Accordingly, passage of time and more cognition will provide the ground for more appropriately and logically using the technology. One study student who claimed to know the challenges of the virtual system stated, "In Iran, we are the first generation of internet learners. We have sometimes made mistakes, but we gain experience and act more properly. Time can help. We should enter the core of an issue, not behave inconsiderately, and not judge soon".

Table: 1.
Summary of the inductive process of
abstraction of themes and categories from the meaning units

Main theme	Main categories	Subcategories
Ethical implications	Unidentified concept of ethics	Lack of references for describing ethical guidelines
		Unspecific definition
		Unspecific ethical expectations
	Curiosity	Attractiveness of virtual entertainments
	Limitation	Searching for getting out of deadlock
		Alternatives
	Virtual liberty	Unidentified identities
		Having access to others' privacy
		Hiding the realities
		Ethical deviations
Ethics development factors	Socio-cultural	The educational system and formation of ethics
	Familial	Monitoring the children and increasing awareness
	Religion and religious culture	Religion and prevention

DISCUSSION

The findings of the present study revealed the experiences of the medical students regarding the virtual spaces and ethics. The study results showed that implications, such as curiosity, attractiveness of the virtual spaces, limitation, and virtual liberty, caused the users to feel ethical conflicts and problems in virtual systems. In fact, when users are searching the internet for a specific subject, a large number of interesting pictures, news, etc. attracts their attention and cause them to visit these pages instead of focusing on the intended subject. This curiosity may cause problems in observing the ethics in using computer and internet. Moreover, imposing limitations on having access to some websites can lead to more serious problems for the society and result in more ethical problems among the internet users.

In a study by Johnson it was revealed users were curious about materials accessible through cyberspace, which confirm the present study(Johnson, 2007).Since some time ago, policies have been made for filtering some websites in Iran in order to prevent the youth from visiting the unethical websites. Yet, the new media in the communication era provide the individuals with different facilities and alternatives by which the users continuously get familiar with new stimulants and various social as well as ethical behaviors.

This system in fact creates an unidentified identity mostly affecting the generation which is exposed to more stimulants compared to the previous generation(Poornaghdi, 2009; Szabo & Underwood, 2004).

Thus, such limitations can have destructive effects on the internet users, particularly students.

Virtual liberty was another implication proposed in the present study. In fact, users with unreal identities can cause a large number of ethical troubles for themselves and others. In the information and technology era, individuals create virtual identities in the virtual space, talk to each other, and transfer correct or incorrect information; however, they might not be aware of the fact that their partners might not be who they pretend to be. In spite of the fact that this virtual identity can have its specific applications in this system(Dealmeghani& Hejazi, 2007; Hsieh & Shannon, 2005), it may also be used for achieving unethical goals. Yet, this virtual identity and freedom can be exploited for ominous and immoral purposes. Culture, family, and religion are important concepts proposed to develop ethics or expand unethical problems. In his book titled 'Application of ethics in internet researches,' Thorseth writes various factors can influence the users' ethical and unethical behaviors.

These factors include family, culture, personal and cultural influences including internet access limitations, inability to recognize ethical and unethical issues, and lack of awareness towards differentiation and the ethical consequences of using immoral websites(Thorseth, 2003).

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In the current study, culture, family, and religion were mentioned to play a role in development of ethics or distribution of ethical problems. Anrerson believes virtual culture values to be verbal, accessible, and free and demanding quick reaction. Besides, Kestles states that hacking is the basis of the virtual culture, while meritocratic values are the primary concept of the virtual society which is accompanied by high individual liberty. Furthermore, Jordan claims that virtual culture is a reaction which forms the culture, politics, and economy. Also, he defines technology as a power which forms the normative system of the virtual culture (Misfaden& Partazian, 2007; Poornaghdi, 2009).Therefore, virtual culture and the behavioral norms used in computer, internet, and virtual spaces should be taken into account in order to develop ethics in these systems. Thorseth recognizes culture as one of the main components of ethics in cyberspace and says before starting to use internet, it is necessary to provide cultural contextsand provide a comprehensive cultural view for appealing to ethics and also dispensing with ethical challenges, which corresponds to the present study(Thorseth, 2003).

In addition, the study students mentioned that family and religion could play a key role in the ethical growth of the children and students. Hence, training the adolescents in the family and school, as a cultural institute, can be one of the important strategies in preventing ethical problems.

In the same line, various philosophers and sociologists have emphasized the relationship between religion, ethics, and technology and have expressed the effective role of religion in controlling the technology. These scholars have mentioned that technology, itself, can be a lifestyle.

It can also be a factor for religious and spiritual evaluations. Overall, religion and technology can be investigated based on historical and fundamental relativities. Thus, religion should play a major role in dealing with the ethical challenges resulting from development of technology. Also, technology should be viewed from a critical religious perspective which creates a balance between religious enthusiasm and technological considerations(Mitcham, 2005; Poornaghdi, 2009) .

Schmidt &Boncella also emphasizes the ethical debates for using internet and suggests rather than planning, computer sciences be studied in order to understand ethical and social aspects of computer sciences and technologies. This explains that encouraging users to study computer sciences can play a major role I appealing to ethics for the use of cyberspace(Schmidt & Boncella, 2006).

According to Morris, not only as internet users, we need to be trained for information technology and ethics, but also need to integrate our ethical knowledge into information technology. In fact, ethical and social issues concerning information technology should be initially introduced and emphasized throughout courses on information technologies (Morris, 2004).

CONCLUSION

According to the study results, various factors including culture, family, and religion are effective in development of the students' cyber ethics. Moreover, limitations in using virtual spaces, users' curiosity, and virtual liberty are effective in the ethical problems resulting from using virtual systems. Overall, by appropriate planning and culturalization in the society, particularly in the families, schools, and universities which are highly effective social institutions, major steps can be taken towards ethical development of the society members, particularly students and internet users.

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APPENDIX

Enclosed are the Web 2.0 tools used to ensure TP, SP, and CP.

Teaching Presence
BB-Collaborate web conferencing https://www.blackboard.com/platforms/collaborate/overview.aspx
Desire2Learn http://www.desire2learn.com/
Social Presence
BB-Collaborate web conferencing https://www.blackboard.com/platforms/collaborate/overview.aspx
Desire2Learn http://www.desire2learn.com/
Voki http://www.voki.com/
Voice Thread http://voicethread.com/
ANVILL https://anvill.uoregon.edu/anvill2/
Fakebook http://www.classtools.net/FB/home-page
Cognitive Presence
BB-Collaborate web conferencing https://www.blackboard.com/platforms/collaborate/overview.aspx
Desire2Learn http://www.desire2learn.com/
Fakebook http://www.classtools.net/FB/home-page
Bubbl.us.com http://ww2.bubbl.us.com/
Mindmapping.com http://www.mindmapping.com/
Flashcard exchange (now Cram.com) http://www.cram.com/
Glogster http://www.glogster.com/
Zunal http://www.zunal.com/
Weebly http://www.weebly.com/