Identification and management of ethical challenge in e-learning systems

Gholamreza Aslani a *, Mohammad senobari b, mohammad Ali rostaminejad, Ebrahim Mirshah jafari

a Department of Education, Dezful branch, Islamic Azad University, Dezful, Iran,
b Department of Education, Dezful branch, Islamic Azad University, Dezful, Iran,

Abstract

Recognizing ethical issues in e-learning and estimating teacher awareness about ethical principals is the main goal of this study. The literature reviewed and the result of survey of Dezfol teachers analyzed descriptively and inferentially. 65% of surveyed teacher sited that they aren’t aware or have very limited awareness about ethical issues in using ICT in education. There was no significant difference between male and female teachers in terms of the level of familiarity with ethical issues. Low correlation (.34) between teachers ICDL Skill training and teachers’ familiarity with ethical issues implies to the weakness of teacher ICDL training.

Keywords: E-learning-ethics- secondary school- copyright

1. Introduction

The advent of computer-based technology in classrooms has posed various challenges to teachers, students, managers, and parents. However, considering technology with respect to ethical aspects is a fundamental challenge. The protection of the mental and ethical well-being and safety of people is an important concern of families and educators, while the preservation of values and cultural heritage of societies is a major concern of educational systems.

Students are usually unaware of whether the Internet content is good or bad. At the same time, the Internet is a powerful tool to access information. It consists of a great deal of undesirable websites ranging from pornographic websites to those instructing how to build bombs (Kebbati, 2001).

Due to nonobservance of ethical and moral issues while using the Internet, these facilities and unauthorized access to data lead to various immoral phenomena, including infiltrating into personal and official computers, stealing information and data, unauthorized access to financial and intelligence sources, disseminating immoral ideas and behaviors, sexual abuse, financial and intelligence abuse, identity theft, etc. (Pournaghdi, 2009).
Ethical considerations in using information technology (IT) in teaching

Traditionally, using the information technology in the developing countries has had (and still has) its own problems, including economic dependency, political predominance of the manufacturing countries, cultural hegemony, etc. For instance, the Committee on Information Technology Literacy, led by US National Research Council suggests that one of the potential effects of the development of IT in the world is ‘alienation’:

Recent evidence shows that spending just a little time (a few hours a day) at the Internet causes some users to feel mentally depressed or alienated. The obvious cause of some of these alienations is that friendship established in chat rooms is less strong than that created by face-to-face interaction. In addition, the amount of time spent in front of a monitor reduces normal inter-personal contact. This requires more investigation; If research findings at Carnegie Melon University are substantiated, they will underscore the necessity of paying attention to the psychic consequences of the use of IT.

In a simple classification, the threats posed by the Internet against the learners are as follows:

1.1. Hateful websites: These sites, which considerably increase violent temper in our children, contain videos or sounds related to scenes of murder, mass murder, or filthy things such as human defecations, etc.

1.2. Pornographic websites: Also known as immoral sites, these websites are a great threat against the psychological health of families and society. Especially during guidance school and early high school, this threat becomes a real, serious danger.

1.3. Vulgar expressions in chat rooms and other communication environments: These indecent, vulgar expressions are mostly common in chat rooms and include sacrilege, etc.

1.4. Making friends through communication facilities: This is one of the most common uses of the Internet, which is carried out by submitting one’s personal information via sites, weblogs, e-mail, and above all, in chat rooms. The results of a research in Ireland have shown that adolescents and youths use the Internet for the following purposes: making friends, playing games, downloading music, and doing homework (w.wewis.ie, 2007).

As for the importance of ethics in online educational environments, a researcher says that in order to take moral decisions regarding online education, the educational institutes should develop a culture of trust, clearly define the proper and improper application of electronic contents, and promote a vivid understanding of privacy in institutes; this, of course, requires organizational insight, common perception of the laws, general exercises on online educational contents and promoting the same in educational environments (Mitchell & Garza, 2009).

Teachers who work in electronic environments encounter great challenges in terms of providing electronic content; it is not only the books and learning facilities which are important, providing a reliable network accompanied with effective software programs is vital as well; now network security and ethical issues come into the foreground (Brown, 2008).

Feng Chen Miao (2008), a researcher on ethics and IT in education, believes that teachers should do the following in terms of ethics:

1.5. Using technology fairly;

1.6. Effectively exploiting of technological resources;

1.7. Appropriate uses of technological resources;

1.8. Demonstrating good activities.

During 1998–2001, UNESCO conducted a research on the obstacles to the application of the Internet in schools from the point of view of computer coordinators. This research sees ethical issues as a critical obstacle in this regard. The results of this comparative study (1998–2001) are indicative of a 10% increase in concerns about ethical issues; that means that ethical and cultural worries are continuously soaring (Preussler, 2006).

The reports of the National Center for Education Statistics about prevention of using inappropriate Internet resources and controlling the students’ behavior in educational environments during 2001–2005 is worthy of attention. The statistics show that this prevention has risen from 96% in 2001 to 99% in 2002 and 100% in 2003 (National Center for Education Statistics, 2006).

The results of a research conducted in Iran indicate that the teachers of girls high schools of Tehran believe that the obstacles in the way of using the Internet include people’s lack of familiarity with the Internet, their lack of interest in using electronic teaching, nonobservance of ethical issues, and fear of the spread of foreign cultures. The opinions of these schools’ principals also confirmed the same factors (Izy, 2007).
2. Research method

The research method was descriptive survey. The statistical population consisted of all the high school teachers in the town of Dezful in the academic year 2010–2011, the sample size being 239 individuals. To evaluate the capabilities of the teachers, the researchers used Mancato’s self-evaluation scale. It should be noted that in this article, only the questions related to the subject matter of the article have been presented and discussed. The validity of this tool was calculated by the Cronbach alpha coefficient to be 0.77.

3. Findings:

The following is the discussions about and answers to the research questions:

3.1. Question 1: How much are the teachers familiar with ethics and assuming responsibility in electronic environments?

This capability has been considered at four levels:

3.1.1. I know nothing about the ethical issues related to using the Internet and computers;

3.1.2. I am familiar with some ethical limitations regarding computer software programs;

3.1.3. I know local and national laws regarding the use of e-mail and the Internet by students and adults; I also know the rules dictated by the school or the Office of Education regarding copyright;

3.1.4. I have adopted the ethical use of computer and let my students know my opinions in this regard;

Table 1. Teachers’ familiarity with ethics of electronic environments

<table>
<thead>
<tr>
<th>Level of familiarity</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>20.5%</td>
</tr>
<tr>
<td>Level 2</td>
<td>44.4%</td>
</tr>
<tr>
<td>Level 3</td>
<td>18.4%</td>
</tr>
<tr>
<td>Level 4</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

As shown in Table 1 above, 64.9% of the teachers are at level 1 and 2. In other words, more than half of them have expressed that they have no knowledge of ethical issues related to the Internet or their knowledge is very limited. Only 35.5% of them are at levels 3 and 4.

3.2. Question 2: Is there any significant difference between male and female teachers in terms of their familiarity with ethics and responsibility in electronic environments?

The results related to the above question were as follows:

Table 2. Level of familiarity with ethics based on gender differences

<table>
<thead>
<tr>
<th>Level of familiarity</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>19.6%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Level 2</td>
<td>42.1%</td>
<td>46.2%</td>
</tr>
<tr>
<td>Level 3</td>
<td>18.7%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Level 4</td>
<td>19.6%</td>
<td>14.4%</td>
</tr>
</tbody>
</table>
Table 2 and graph 1 indicates little difference between male and female teachers in terms of their familiarity with ethics and responsibilities in electronic environments. In order to examine the significance of the differences between the capabilities of both genders, the Mann–Whitney U test was applied, the results of which are presented in Table 3 below:

### Table 3. The Mann–Whitney U test for inferential analysis of gender differences

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>Mann-Whitney U</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>107</td>
<td>124.27</td>
<td>6605</td>
<td>0.363</td>
</tr>
<tr>
<td>Female</td>
<td>132</td>
<td>116.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>239</td>
<td></td>
<td>6605</td>
<td>0.363</td>
</tr>
</tbody>
</table>

The results of Mann-Whitney U test, summarized in Table 3 above, show that there is no significant difference (z=-0.91, p>0.05) between male female teachers in terms of their familiarity with ethics and responsibility in electronic environments.

3.3. **Question 3:** is there any significant difference between the number of skills acquired by teachers through ICDL course and their level of familiarity with ethics and responsibility in electronic environments?

The results of correlation analysis to answer the third question indicate a low (0.344) but significant correlation at the level of 0.005. The correlation between the skill courses passed is positive, that is, the more ICDL skill courses passed by the teachers, the more familiar with the ethics and responsibilities they are. What is of high importance here is that the correlation is low (0.344); this coefficient indicates the fact that the seven ICDL skills need to be revised in terms of teaching ethics and responsibility of the teachers. It will be dealt with in more detail in the next section.

### 4. Conclusion and Suggestions

In order to manage the ethical challenges in the e-learning environment, two essential steps should be taken: 1) lawmaking; 2) institutionalization of law.
This research demonstrates that about 70 percent of teachers either are not familiar with ethical issues in e-learning environments or their knowledge is restricted to some copyright laws. This finding can be analyzed as follows:

4.1. Either there is no law-making in the arena of e-learning and teaching or the law has been very weak in this regard;

4.2. Officials have performed weakly in teaching and institutionalizing the law.

In the first case, the current research shows that no law dealing directly with information technology in teaching and e-learning has been enacted. However, general laws regarding software programs and electronic publications have been passed by the Islamic Consultative Assembly (Iranian parliament), which could be construed in terms of e-learning issues. What is most felt, and emphasized and confirmed by this study is the weak performance of the educational system in on-the-job training of teachers. Low correlation (0.34) between learning ICDL skills and familiarity with ethical issues in electronic environments confirms this analysis.

The results of the study of the ethical knowledge of teachers are another evidence of the inefficiency of teaching ICDL seven skills. The plan of teaching these skills was stipulated in the ‘applicable development of information technology’ and was vastly incorporated in the teachers’ on-the-job training program. The results of this research suggest that a revision in teaching the ICDL skills and incorporating ethical issues in them is necessary.

Other suggestions based on the current research include informing the families during teacher-parent meetings, and direct and indirect teaching of ethical considerations for using the Internet and e-learning based on the latest research in this regard.

References


