

Cyber Ethics Infusion in School Curriculum

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Abstract

This study is both qualitative and quantitative which attempts in exploring the opinion of both teachers and parents in the call for the integration of cyber ethics into the school curriculum. The Broader research question in the study investigates: 'Is there a problem with how cyber ethic curriculum should be infused in school to what level of students?' focus interviews explores the level of understanding of the parents about their children usage of internet and many among them strongly believe that understanding of cyber ethics will increase students' use of the Internet is both effective and responsible way. If a student encounters unsafe behaviour on the Internet, the student will be able to behave and act appropriately. The quantitative study deals the teacher perception of how to infuse this syllabus in the curriculum. The research is also investigating teachers and parent's perceptions of the evidence of problems associated with their students/children's access to the internet. These suggestions of parents and teachers about modification of curriculum for the integration of cyber ethics is to be identified and these findings should be of interest to the wider educational community.

Keywords: cyber ethics, ethical decision, moral development, infusion, school curriculum

1. Introduction

Today, Internet and Information and Communication Technologies (ICT) open a world of possibilities for children, expanding their horizons and providing opportunities to learn, create identities and participate in society. In parallel, however, this population can also be exposed to risks, such as giving out their private details, cyber bullying or grooming for sexual abuse etc...

Since the advent of personal computers and networking the Education Departments in many developed nations have taken the opportunity to promote the technology's educational benefits. There have been several studies on the educational value that gets upgraded by computers in schools and the research thus far describes some of the ethical changes that have emerged as a result of the technology. When we look at the present school curriculum of Tamil Nadu state, they introduce computer science to school children at 6 standards. These curriculums basically develop only skills. There is total slipshod of how to use internet responsibly and there is no scope of moral development.

This study wants to find out the insight of instructors on the infuse cyber ethics in school curriculum and also scale the attitude of teacher as at what level they wanted to infuse it in the syllabus. Further it also examines the need of the introduction of cyber ethics into the curriculum.

The word 'Infusion' seems to be the most appropriate because it means a concoction, a mixture and even more a blend. Hence, the phrase 'cyber ethics infusion' was created as cyber ethics should be blended into the curriculum and not be introduced as a new subject or be viewed as such, As most of the teachers preference.

2. Review Of Literature

2.1 Ethical Issue

The three most serious of the ethical issues raised concern theft of copyright material, privacy and access to undesirable material on the Internet. Healy (1998) concludes the report 'Creating the Future' with the hypothesis that '...it seems a grave error to expose children to a stimulus that may short change this critical system'. The critical system she infers here is their mind and professes that if children's thinking and reasoning are given a good foundation the mind will continue to adapt and develop for a lifetime and the stimulus she refers to is the computer. Steube (1996) claims, "As more and more schools venture onto the internet, incidents of plagiarism and copyright infringement that wear once limited to classrooms are reaching an international audience". In an interview on her book 'Endangered Minds', Healy explains that without inner speech, one cannot mediate one's own thinking, and hence this study hypothesizes that students without exposure to cyberethical behavior will not be able to mediate their own behaviour. If this is the problem then we cannot expect the school student to know why issues such as privacy, copyright or social engineering are some of the issues that

require more good behavioural skills to be learnt when using the Internet.

DeGaetano (2000) founded the Parent Coaching Institute in Bellevue, U.S.A. that provides parents with good parenting skills and continues to contribute widely to the research on the effects of media on the young. Parents have observed the changing patterns in lifestyles that are impacting on practices of rearing children. Parents are becoming more aware of the outside influences having a greater impact on the young child's mind and passively arresting their creativity and imagination (Armstrong 2001).

We generally would like to see children growing up to be good citizens of the world and with an understanding that the Internet environment is a global environment and includes people of different cultures who possess different views. At the Centre for the Advancement of Ethics and Character, the guiding principles written into the 'Character Education Manifesto' is being used to promote an "abiding respect for the intellect and spirit of the individual" (CAEC 1996). Further, it expresses the "need to re-engage the hearts, minds and hands of our children in forming their own characters, helping them to know the good, love the good, and do the good" (CAEC 1996).

According to Gilster (1997) the last century has seen a rapid development in media and communication and as we enter the twenty-first century, web technologies are Replacing television, telephones and newspapers as our information source. In schools, teachers often send students off with project work without a clear set of questions as to how a topic should be researched. The World Wide Web is just mentioned as a possible source and no further direction given. "Networking is not a sufficiently strong commitment to the goal in itself, as most wired schools quickly learnt. This effort is about enhanced performance – students who can write, think, reason and communicate more powerfully" (McKenzie 2000)

Gilster's (1997) expresses the concern that "Internet novices with the basic thinking skills and core competencies will need to thrive in an interactive environment so fundamentally different from passive media such as television or print." This is an observation that I am hoping will allow me to be more eclectic in the researching of cyberethics and the use of the Internet in the target population.

Al-Kandry and Al-Kashaan (2001) argue that there are significant differences between males and females in the average number of hours of using the internet in favor of males (pp. 1-45). Shaheen (2001) shows that there is no clear relationship between the increasing use of the internet and the gender of the user (p.48). Mansour (2004) argues that the first motivation of using the internet is seeking knowledge and it is followed by amusement and making social relationships, and that there are no significant differences between males and females. The study shows that about (85%) of internet users are satisfied with their results of using the internet (pp. 167-196). These studies focus on the motivations of using the internet which can be summarized as the following: seeking knowledge, amusement and making social relationships

2.2 Impact of Internet on Students

There are many studies that show that using the internet affects positively students' motivation, increases self-learning, and improves both communication and writing skills. Al-Helaly and Al-Sakry (1999), for instance, show both positive and negative sides of using the Internet, and invite all internet users to share in establishing the national culture and living in harmony with the information technology revolution. The study concludes that in connecting to the internet people should take the teachings of our religion and the related social traditions into consideration. It expresses the dire need for more Arabic studies which deal with internet use ethics. While this study Expresses concern over the negative aspects of internet use, it nevertheless acknowledges the importance of this technology and calls for using it in a way that retains and preserves the revered social values of the community.

Al-Degany and Wahba (2000) point to the obstacles facing teachers in using the internet at schools such as lack of training programs and technical support. Moreover, they point to the dangers of using the internet for non-educational purposes since there are some passive attitudes towards using the internet related to the dangers of using it. According to Al-Degany and Wahba, there is another problem facing teachers, which is the issue of too much knowledge on the internet, which may cause dispersal of information. Lack of English language control is another big problem that may face the users of the internet.

Salum (2002) claims that using TV and satellites has very dangerous effects on the young people because it

weakens loyalty to their country and to the community, thus weakening family ties (pp.265-293). It may also raise and stimulate the criminal behaviors and the social diseases. But Al- Maaush(2002) stresses the negative side of globalization through using the internet as it may weaken the relationship with the Arabic language and the religious principles. Despite the legitimate concerns raised by these and other authors who are wary about the negative effects of the internet, it must be noted that these authors do not consider the positive sides of internet use and how to encourage youthful people to make use of them and what precautionary measures might be taken to protect them from the pitfalls of the internet.

Abdel Ghany (2002) surveys a sample of 400 male and female student from Cairo, Al-Mansoura and Al –Azhar universities. This sample reveals that 74% of them think that there are moral dangers of using the internet, which affects the young negatively. These dangers can be summarized in the following points: visiting pornographic sites, chatting with strangers, loading songs and music, and joining internationally suspicious groups. The study shows that the main use of the internet is for entertainment purposes, followed by cultural and sporting interests (pp. 1219-67).

Mohammed (2000) argues in his experimental study that students have positive attitudes towards the internet even before studying through it. After studying through it, there is a remarkable improvement in students' skills, knowledge, and attitudes towards the internet (pp. 149-161). On the other hand, Davis (2002) claims that e-learning is very effective in learning process through educational freedom and the availability of the database and interacting with the e-learning systems (pp. 162-176).

Abdul –Aziz (2003) argues for the importance of using the internet in learning. It depends on the necessity of planning and performing e-courses for Saudi Arabian curricula. The study suggests using the internet in learning, and argues for the importance of overcoming all the problems and the difficulties to achieve this aim. Song et al. (2004) indicates that there are some factors that affect e-learning such as the quality of course design, time management, and the ability of performing homework and tasks at any time (pp. 59-70).

Axel (2001) states that the Internet and its potential effects on society are receiving much attention in public discussions (pp. 427-430). Many discussants expect that the World Wide Web will enhance global trade of products and services and thus will increase economic wealth. However, social scientists are concerned with possible social side-effects of the Internet. Specifically, a recent experimental study by Kraut et al. (1998) found that greater use of the Internet decreases communication within the family, diminishes the size of the subjects' local social networks, and increases feelings of loneliness and depression. This study sheds doubt on the generality of these findings. Results from a survey of 15 842 Internet users and a control group of 1196 non-users conducted in Switzerland suggest that Internet use neither decreases respondents' network size nor the time spent with friends. The study also shows that electronic mail is widely used and has positive effects on people's social networks. The study uses many socio-demographic control variables and statistical methods to control for simultaneity. From the previous presentation, it seems that the evidence on internet use impacts students is mixed.

On the one hand, it appears that there are lots of dangers associated with using the internet such as penetrating the national culture and adversely affecting the social values of the community and probably undermine the mother-tongue language. On the other hand, it has been shown by other Researchers that internet tools may become a significant conduit of social life and work-life. Some internet uses, particularly the electronic mail appears to have positive effects on the quality of people's social life so the evidence is mixed and the jury may still be out on the issue.

2.3 Conclusion and Research Question

Given the recent emergence and novelty of cyber worlds, and its both negative and positive impact on students this research aimed to explore the perceptive of teachers and parents about cyber ethics curriculum deliver what messages to students regarding responsible cyber activity and internet ethics. The following research questions guided this study:

What do teachers feel of the introduction of cyber ethics into the curriculum make a difference and be useful in their overall educational experience and therefore help in providing some valuable measurement on the student's learning experience.

Do we need cyber ethics in school curriculum?

Do students have and use a code of behavior on the Internet?

Do teachers have a code of behavior for students on the Internet?
Do parents have a code of behavior for their children on the Internet?
Are there any cyber ethical problems? If yes, should cyber ethics be integrated into the school curriculum? What level it should be introduced? What does the curriculum cover?
In what grade must be given to the subject? Who has to teach the subject?
What are the expected outcomes after the infusion of the syllabus?
What are the problems in infusing the syllabus in the school curriculum?

3. Methodology

Since it's both qualitative and quantitative approach a list of school in Chennai that follow state board syllabus was listed. This list was obtained from Directorate of Public Instruction (D.P.I) Tamil Nadu. The school was divided into five regions as indicated by D.P.I. From each of this region one school was selected through simple random sampling. Questionnaire was distributed among the teachers of those schools. A sample size of 150 completed questionnaires was obtained.

In the same process the students were selected in simple random method and their parent (either their mother or father) any of them according to their willingness was asked to participate in the focused interview.

4. Data Collection

Data collection included both quantitative and qualitative measures. Quantitative assessment included the use of a print survey that collected data about their belief that internet safety should be taught at school, their consideration of the most appropriate way to teach it, who should teach them to whom these lessons should be introduced, what are the topics should the curriculum cover. Data was collected that assessed overall curriculum intention to utilize.

Five focus group interviews (FGI) were also held, there were a total of 38 participants, 10 men and 28 women. The first FGI was conducted face-to-face approximately one week. This FGI lasted approximately 45 minutes and was digitally recorded.

The first focus group was held in person in order to not only discuss the infusion of cyber ethics in school curriculum, but also to gain insight into other aspects related to their problems in their children usage of internet (for example, parents general impressions of the internet world or perceptions of using internet for education). During the interview their verbal and non-verbal cues were noted and feedback was also immediate. This setting was the best way to gather new insights. Questions focused on two key areas: parents reactions to the infusion of cyber ethics in school curriculum and how do they consider internet as safer environment for children.

4.1 Data Analysis

Quantitative analysis was conducted using SPSS 16.0 for Windows and included descriptive analyses of the post-intervention survey. Focus group interview transcripts were analyzed using the constant comparative method (Strauss and Corbin, 1998). The constant comparative method is a grounded theory methodology whereby data is broken down and conceptualized into key ideas and themes. Each transcript was examined separately, noting key ideas and themes. To protect subjects' anonymity, numbers were assigned to each focus group participant.

5. Results

Almost 150 of teachers completed the Questionnaire and majority of them (88%) of them felt that infusion of cyber ethics in school curriculum is necessary.

From the above table I the responses from all teachers based on the internet safety education at school level are being calculated, teachers were asked if they believe that internet safety should be taught at school?. The indicators of this responses are "yes, no and don't know". Among all responses, 88% respondents says the internet safety education is being teaching in all schools, it is the highest value and 10% of them says no and only 2% says they don't know whether it is teaches or not, it is a lowest value from the overall responses.

Further more 32% respondents insist for separate lesson with grade, 8% prefer for separate without grade, 7% with incorporated in informatics, 51% recommended for seminars like conducted regularly can be more appropriate way for teaching internet safety lessons in schools, it is the largest value and only 2% go with others option

36% of the respondents insist only secondary education teachers will be suitable for teaching internet safety for children in schools, 13% from primary education, 9% from social workers, 0.7% as a kindergarten teachers, 27% as psychologists and 13% refers others as a choice for teaching internet safety in schools. It indicates only secondary education teachers is the opted choice for internet safety education.

61% of respondents prefer only high school children will be eligible for Learning Internet Safety Lessons in schools, 15% offer for primary schools and 23% encourage children from higher secondary level.

5.3% of the respondent prefer that cyber ethics syllabus should cover advantage of positive side of internet, 56.3% recommends internet ethics, 7.3% wants privacy protection taught and 31.3% respondents want the syllabus to cover the basic principle of the internet.

5.1 Focus group results

Several key themes were identified in all five focus groups. Participants overwhelmingly thought the cyber ethics information presented to student would be useful and informative, which would then cause them to rethink their current ethical behaviors. Parents comments (using participant numbers to protect parents' anonymity) are highlighted below to illustrate each theme found.

P1: I think it is a necessary topic. This will reduce the risk faced by them while they browse

P2: when he uses internet I feel he is more intelligent and it also makes him knowledgeable

P3: I believe schools are responsible in developing moral development of children than home

6.) Discussion

The promotion of the use of the Internet in education has compounded the effects as the information available, whether factual or not, can be passed around at a faster rate than before this new media took hold. Parents, have begun to change the way they view schooling because of the other factors that have now become prevalent in our society – the influence of computers and the Internet.

Internet was widely publicized as an educational tool. Parent generally would like to see children growing up to be good citizens of the world and with an understanding that the Internet environment is a global environment and includes people of different cultures who possess different views.

In schools, teachers often send students off with project work without a clear set of questions as to how a topic should be researched. The World Wide Web is just mentioned as a possible source and no further Direction given. In the current environment, education is a service to be delivered to clients, namely the student and parents. Parents consider the balanced integration of the Internet into the curriculum to be the integration of responsible behavior as part of that service.

Both teacher and parents prefer cyber ethics to be introduced to high school because they are seen as the most easily influenced in several areas of their learning (Almon,2000) during those pre-adolescent and early adolescent years. In the early 1990's, computer technology was seen to support teaching and learning except that the use of this technology has now grown into a 'minefield'

By teachers using the framework to be developed through this study they can help children to understand the behavioral issues involved in using the Internet through the whole curriculum and when away from school.

7. Conclusion

The research being conducted fully supports the changes in teaching styles and tools brought about as a result of the technology (Bennett 2001). These are necessary skills to be gained to prepare students to enter the work force in the future. I contend that we have to ask what role education plays in where students are learning their online behaviour, to make sense of this new education age. This is the behaviour that will be used, as their way of decision-making as events occur while they surf the net for communication and learning. The research in progress investigates the behaviour that the student currently possesses and examines how and whether Cyber ethical behaviour can be developed to provide skills required in using the new technologies.

Hence as pointed out earlier, the study aims to recommend techniques to educate school students in Cyber ethics and prevent improper Internet usage through ethical use of the Internet within the school curriculum. Teachers and parents of this age group of students will find this research helpful in understanding how the Internet can affect their teaching and the general ethical behaviour development of children. This study will also be of interest to the wider community as it relates to global cyber citizenship issues such as highlighting the dangers and consequences of cybercrime to children and young adults (Berkowitz 2000; cybercitizenship.org 2000; Berkowitz 2001). It also targets some of the goals of cyber citizenship such as the establishment of a broad sense of responsibility and community in an effort to develop smart, ethical and socially conscious online behavior in young people.

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Table 1. The capitals, assets and revenue in listed banks
 Description for the above table.

S.NO	Infusion of Cyber ethics		
		Frequency	Percentage
1	Safety Lessons		
	Yes	132	88.0%
	No	15	10.0%
	Dont No	3	2.20%
2	Appropriate way		
	Separate lesson	48	32.0
	Without grade	12	8.0
	Informatics	10	6.7
	Seminar	77	51.3
	Others	3	2.0
3	Suitable to Teach		
	Secondary	54	36.0
	Primary	20	13.3
	Social worker	13	9.3
	Psychologist	41	27.3
	Others	20	13.3
4	School Level		
	Primary	23	15.3
	High School	92	61.3
	High Sec	35	23.3
5	Content covered		
	Adv of positive	8	5.3
	Internet ethics	84	56.3
	Privacy protection	11	7.3
	Basic principle	47	31.3

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