

A STUDY OF ETHICS AND INFORMATION TECHNOLOGY USAGE AMONG UUM INTERNATIONAL STUDENTS

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ABSTRACT

Basically, ethics is a universal of guiding beliefs, standards, or ideas that pervades an individual, a group or community of people and individually is accountable for their actions and behaviors. The emerging of world wide ICT, ethics also are related to Information Technology (IT) and requires one to behave ethically rights. Ethics of IT users are varying among regions, cultures, and societies; and based on literature review, it was depending on beliefs and perceptions. Currently, IT drastically changes the way how ethics will conduct and practiced within organizations. Therefore, the main objective of this research is to identify what is perceived as ethical behavior regarding IT usage. Secondly, this research is to observe the ethics among international students in relation to IT. In order to conduct this research, questionnaires will be used to collect the primary data from respondents, as well as international students of Universiti Utara Malaysia. The data collected will then be analyzed by using Statistical Package for Social Science (SPSS) software. As conclusion, ethics towards IT is varied among individual whereas from differs countries as well as Indonesia, Thailand, China, Iraq, and Pakistan and mostly, it is based on attitudes or perception in to what extent does it said to be ethical while dealing with IT.

INTRODUCTION

In general, ethics is a suite of guiding beliefs, standards or ideals that pervades individual or a group, or community of people. Because of domination of information technology (IT) in every department and human space activities, thus ethics and IT actually established a unique collaboration where both become important in today's globalization. Basically, Abdul Manaf Bohari (2006) argue that IT helps human to perform their work using IT devices, system and software technology with final aimed to upgrading their effectiveness and efficiency of work and day life. In today organization, Joyner and Payne (2002) believed that advancement in technologies such as the Internet create new spins on old issues such as the code of conduct, privacy, intellectual property, cyber crime, and many kind of problems whereas fall under ethical matters. In another side, Laudon and Laudon (2009) and Stir and Raymond (2009) noted that one issue raised on the basis of ethics and IT is rapidly evolving into a broader and even more

important field, which might reasonably be called global information ethics. Beside that, Velasquez (2006) and Moor (1985) believed that computer ethics is the analysis of the social impact of computer technology as well as the corresponding formulation and justification of policies for the ethical use of such technology. Parker, and Baker (1990) mention that global networks such as the Internet, including the world-wide-web are connecting people all over the earth and will cause global ethical problems of IT. This is support by Gorniak-Kocikowska (1996) whereas remembered that the computer revolution are continuously stimulates problem regarding ethics in the global landscapes.

Among of all IT ethics issues, the issues involving computer crime and cyber crime is the worst as well as stated by Laudon and Laudon (2009), Stir and Raymond (2009), O'Brien and Marakas (2008), Velasquez (2006), Koen and Im (1997) and Laudon (1995). In academic perspectives, Velasquez (2006) stated ethics and IT is seen in a narrowed prospect, where educations are complying with IT and on the other side, students ethics towards the application of IT will become an attractive issue. Most of the time, the unethical code of conduct in using IT and accessing the source of IT will raise the issue of technological exploitation in academic field. Thus, it is interestingly to understand what caused the students become unethical when using the IT? How their perceived that unethical used of IT in their routine day of life? What are the activities and behavioral problems that have by students, as well as unethical IT usage?

In perspective of society, IT ethics are important issues because society has certain perceptions on IT adoption. The features of IT use that concern society are the ability to program the computer to do practically anything, the fact is that the computer can so change our daily lives and this are supported by social based factors, as human value and computer design factor by Friedman (1997), situational determinants factors (Glass & Wood, 1996), attitudes (Oz, 1990), individual characteristics or situational factors (Harrington, 1989), morale obligation and attitudes (Gorsuch & Ortberg, 1983), and many more and all of this are identified as main factor that contributed to the issues of IT ethics. Meanwhile, professional responsibilities as well as identified by Gotterbarn (2001) also related to these issues. In educational research, as well as conducted by Banerjee, Cronan and Jones (1998), Berdichevsky and Neunschwander (1999), Christensen and Eining (1991), Gotterbarn (2001), Business Software Alliance (2004), Payne and Landry (2005), Deborah (2006), and James (2007) there are many students had misuse the advance in IT that lead them to behave unethically during completing their academically tasks. Maybe this related to demographic factor effects on attitudes toward software piracy as well as identified by Solomon and O'Brien (1990). Some model are introduce likewise by Ajzen (1985), Bommer, Gratto, Gravander and Tuttle (1987), Carroll (1991) and Chang (1998) are discussed on how does unethical happen in the real world, including students in school and university. Therefore, this study will help to identify the unethical issues regarding IT usage in one of university in Malaysia, as well as Universiti Utara Malaysia.

PROBLEM STATEMENTS

In the world where information spreads every where through world wide IT infrastructure, there are very few people being struggle in performing computer act and follow the ethical code of conduct for accessing the information. Nevertheless, there are more issues being raised regarding the IT misuses especially IT unethical behavior in organization including learning based organization. For examples, one study that was conducted by Glass and Wood (1996) describing the situational factors that related to unethical behaviors among students. This factor accordingly to Laudon and Laudon (2009) will opening an opportunities for cheating afforded by digital technology have not attempted to specify the full range of unethical activities among students. Other research are concerned academics have challenged the notion that technological remedies can address new modes of cheating. However, it is questionable whether they are informed about what is considered to be right and wrong while dealing with IT. Therefore, by conducting this study, it will help to identify what is perceived as ethical behavior in IT usage as there is an argument that studentsø perception will influence the ethical behavior on IT usage in their daily activities.

From literature review, a research on situational factors on specific topics on unethical issues over the ten years frame time has been narrowly focused on the efficacy of instituting codes or act, with aimed to reduce academic dishonesty, as well as discussed by Laudon and Laudon (2009), Stir and Raymond (2009) and OøBrien and Marakas (2008). Beside that, there many reason why the ethics of computer users are diverse among countries, likewise social acceptability factors, tendency of being caught and cross-cultural differences factors. In another way, the unethical behavior on IT usage that is stemmed from cross-cultural differences canø be said to be same for all countries, but so far, there is no evidence to what extent does studentsø behavior towards IT can be claimed as vary among countries. Therefore this study will observe the ethics among international students towards IT, particularly for Universiti Utara Malaysia international students such as from Indonesia, Thailand, China, Iraq, and Pakistan.

Finally, another factor in consideration to IT ethics is gender difference, as well as Stir and Raymond (2009). Researchers such as Solomon and OøBrien (1990) identified gender as important factors, as well as explain men rely on their attitudes toward an action when deciding to perform a computing act, whereas women rely on prevailing social norms. Meanwhile, OøBrien and Marakas (2009) also found women to reach ethical judgments based on relationship rather than rights or rules. However, this is not support by Abdul Manaf Bohari (2006) whereas found male students demonstrated significantly more negative attitudes towards cheating than female students even though reported frequencies of cheating behavior for both sexes were nearly the same. Thus, this study will then expand the study to examine the effects of gender in IT usage in the context of gender factor as a contributor to the ethicality matter of IT research areas.

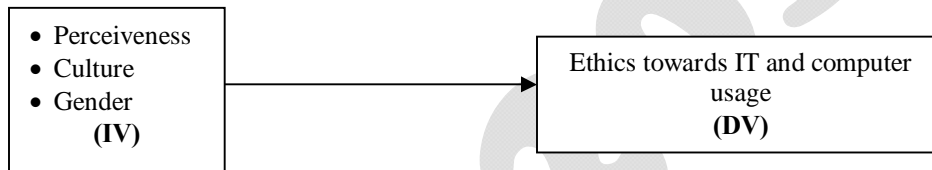
RESEARCH OBJECTIVES

- (i) To identify what is perceived as ethical behavior in IT usage.
- (ii) To observe the ethics practiced among international students towards IT usage.
- (iii) To examine the effects of gender in computer and IT usage.

RESEARCH METHODOLOGY

For this study, descriptive research is designed to meet the characteristic of research questions that emphasize the relative amounts of some variables or the extent to which some variables are related. This descriptive research design was chosen to meet the objectives of the research and Figure 1 below shows visually the diagram of research conceptual model that connects variables involved.

Figure 1: Research Conceptual Model.



Survey is done using a questionnaire that adapted from Etter, Cramer, and Finn (2006) and some rearrangements have done due to the purpose of study, as well as appear in Table 1. Distribution of the questionnaires was held in class on March 9, 2008 and 120 sets of questionnaires had been given away for each respondent to be completed and 100 sets of questionnaire were re-collected on the spot right after the respondents had completed answering them. It took only twenty-minute duration to complete the survey.

This questionnaire is divided into two parts, as well as Part A for demographic background (respondent profile) and Part B. Specifically, Part B had been divided into three sections, such as Section 1 Ethics concerning the use of software program; Section 2 Ethic concerning the code of conduct in academic field; and Section 3 Ethics concerning one's doing over the Internet and computer use. Overall, Part B contains 24 ethical items that require respondents to select from a 5-Likert scale points.

Sections	Items
Section 1 (C1): Ethics concerning the use of software program	Q1: Install non-genuine software Q4: Use website/software to create bibliography Q19: Use free software in the Internet to complete assignment such as translating text Q23: Use software program that select important points and organize them into summary Q24: Use character spacing, line spacing, and margin size option in software to increase the length of paper/assignment
Section 2 (C2): Ethics concerning	Q7: Copy and paste essay from the Internet and admit it as yours Q8: Copy file on disk contain friends' assignment and admit it as yours Q9: Buy paper online and admit it as yours

the code of conduct in academic field	<p>Q10: Carrying instant message conversation during computerized exam</p> <p>Q13: List websites that you don't use for assignment in bibliography</p> <p>Q14: Copy two lines of text directly from reference source without acknowledge them</p> <p>Q15: Copy and paste one sentence from online sources without acknowledge them</p> <p>Q16: Change few words in paragraph copied and pasted from the Internet so it need not to be cited</p> <p>Q17: Use series of paragraph copied and pasted from the Internet without acknowledge them</p> <p>Q18: Write summary based on online abstract of journal</p> <p>Q20: Your friends e-mail you their complete assignment that give you framework to base your work on</p> <p>Q21: Read online summary/review rather than read the full-length version</p> <p>Q22: Change few lines of paper you have written for one class and submit it for another class</p>
Section 3 (C3): Ethics concerning one's doing over Internet and computer use	<p>Q2: Explore friends' PC without their knowledge</p> <p>Q3: Create virus and its antivirus to gain profit</p> <p>Q5: Surf the Internet with no purpose</p> <p>Q6: Access websites contains nudity/pornography for fun</p> <p>Q11: Receive and use e-mail from friends to get their exam questions they just completed</p> <p>Q12: Send e-mail to friends to pass the exam questions you just completed</p>

Table 1: Items Used in Questionnaire based on Specific Category.

RESEARCH FINDINGS

Respondents Background

Table 2 below shows the demographic background of the respondent. Out of 100, 44% respondents are male and females are 56% aged between 19 and 24 years old. Majority of respondents are from China (26%), followed by Thailand (20%), Pakistan (20%), Indonesia (18%), and Libya/Arab Countries (16%).

Items	Attributes	Results	
		Count	%
Gender	Male	44	44
	Female	56	56
Country	Indonesia	18	18
	Thailand	20	20
	China	26	26
	Libya/Arab Countries	16	16
	Pakistan	20	20
Age	Below 20 years old	14	14
	20 to 25 years old	86	86

Table 2: Demographic Background.

Perceive Ethical Behavior in IT Use

For section 1, most frequent scores rated for items number (1), (4), (19), (23), and (24) under this category is 2, 4, 2, 2, and 4 with means 2.56, 3.18, 1.98, 2.92, and 4 each. Score rated number 2 represents 'agree' while score 4 represents 'disagree'. The three items scores are items (1), (19), and (23) which showed that the respondents agreed on and perceived those items to be said as ethical behaviors with mean scored between 1 to 2. Maybe, they viewed the act of installing non-genuine software to be ethical since they assumed that their financial concern as students unable them to purchase the original one. In addition, they view the act of using software to help them doing translation and selecting important points and organize them into summary as an advantage instrument of the advanced of the new technology which are very beneficial. Finally, score for items number (4) and (24) however were rated as 'disagree' with means 3.18 and 4 each. It could be shows that respondents were not agreed on the act of using a website or software to create bibliography, as well as use the software in character spacing, line spacing and margin sizes options to increase length of their paper or assignment as unethical behavior.

For section 2, items (17), (18), and (20) were scored with means 1.82, 2.84, and 2.62 each. This shows that respondents agreed on and perceived the act of copying and pasting series of paragraph without acknowledge them, and this also includes activities such as write summary based on online abstract of a journal and rely on their friends' complete assignment to base their work on to be as ethical behavior. The rest were scored '4' and '5' which representing the degree of disagree and strongly disagree for that particular items. Specifically, the act of copying and pasting series of paragraph without any acknowledgement should be avoided. Moreover, the act of taking the abstract of a journal or any articles and rely on friends' complete assignment as a base for own work were also did not seem ethical.

Lastly, in section C, items (3), and (6) scored with means 4.36 and 4.56 each. This shows that the respondent perceived the act of creating virus and its antivirus for profit purpose and accessing website contains nudity/pornography as not being ethical behavior. While the rest, for items (2), (5), (11) and (12), were scored with means 3.14, 2.14, 2.62, and 1.78 each and meaning that the respondents perception regarding the act of exploring friends PC, surfing the Internet with no purpose, receive and use e-mail from friends to get their exam questions they just completed, and send e-mail to friends to pass the exam questions were perceived as ethical behavior. However, all of score are in middle range.

The Ethics among International Students towards IT

The result shows items agreed on what is perceived as ethical behavior on IT usage consists of items (1), (2), (5), (11), (12), (17), (19), and (23), as well as shown in Table 3 (rated as *strongly agree* and *agree*). Students from Pakistan shared their beliefs with students from Thailand to agree with the act of simply surf the Internet with no purpose, sending e-mail to friends to pass the exam question they just completed and use series of paragraph copied and pasted from the Internet without acknowledge them to be

as the ethical behaviors. Overall 90% of Thailand's students also accept the act of using free software in the Internet to complete their assignment such as translating text into desired language. Meanwhile, students from Indonesia believe in installing the non-genuine software to be ethical (66.7%) while students from Libya/Arab Countries believe on the behavior of receiving and using e-mail from friends to get their exam questions they just completed to be ethical (75%).

The Effects of Gender in ethics and IT

Shortly, all categories of items C1, C2, and C3 were used. However, after using cross-tabulation; were seen more females agreed with items categorized (under section 1). Table 4 shows that 34 female respondents were agreed on installing non-genuine software as being ethical compare to male with totally 26 respondents. Female respondents also agreed with the act of using website/software to create bibliography, use free software in the Internet to complete assignment, and use software program that select important points and organize them into summary, with total score is 20, 40 and 28 respondents, compared to only 14, 34 and 18 male respondents. However number of female respondents for item 24 is lesser than male respondents.

Items	Countries (Percentages)				
	Indonesia	Thailand	China	Iraq	Pakistan
Install non-genuine software (Q1)	67	50	61	62	60
Explore friends PC without their knowledge (Q2)	44	30	46	25	50
Surf the Internet with no purpose (Q5)	67	70	69	50	70
Receive and use e-mail from friends to get their exam questions they just completed (Q11)	44	50	46	75	40
Send e-mail to friends to pass the exam question you just completed (Q12)	89	90	69	87	90
Use series of paragraphs copied and pasted from the Internet without acknowledge them (Q17)	67	90	85	75	90
Use free software in the Internet to complete your assignment such as translating text (Q19)	55	90	69	75	80
Use software program that select important points and organize them into summary (Q23)	33	50	46	38	60

Table 3: Frequencies Table for Items Rated as 'Strongly Agree' and 'Agree'

Items	Scale	Gender	
		Male	Female
Install non-genuine software (Q1)	Strongly Agree	2	0
	Agree	24	34
Use website/software to create bibliography (Q4)	Strongly Agree	0	2
	Agree	14	18
Use free software in the Internet to complete your assignment such as translating text (19)	Strongly Agree	14	20
	Agree	20	20
Use software program that select important points and organize them into summary (Q23)	Strongly Agree	2	0
	Agree	16	28
Use character spacing, line spacing and margin sizes options in software to increase length of your paper (Q24)	Strongly Agree	2	0
	Agree	4	4

Table 4: Cross Tabulation for Ethics Concerning the Use of Software Program.

For section 2, items that stated females as the highest scorer of the total sum of disagree and strongly disagree showed that female respondents were more ethical in concerning the code of conduct in academic field as compared to male respondents. Overall, all of results are shows in Table 5.

Items	Scales	Gender	
		Male	Female
Copy and paste essay from the Internet and admit it as yours (Q7)	Disagree	20	38
	Strongly Disagree	0	2
Copy file on disk contain friends' assignment and admit it as yours (Q8)	Disagree	18	24
	Strongly Disagree	22	32
Buy paper online and admit it as yours (Q9)	Disagree	16	22
	Strongly Disagree	18	18
Carrying instant message conversation during computerized exam (Q10)	Disagree	12	20
	Strongly Disagree	16	20
List websites that you don't use for assignment in bibliography (Q13)	Disagree	26	38
	Strongly Disagree	0	0
Copy two lines of text directly from reference source without acknowledge them (Q14)	Disagree	6	22
	Strongly Disagree	30	24
Copy and paste one sentence from online sources without acknowledge them (Q15)	Disagree	12	34
	Strongly Disagree	22	18
Change few words in paragraph copied and pasted from the Internet so it need not to be cited (Q16)	Disagree	22	22
	Strongly Disagree	0	2
Use series of paragraphs copied and pasted from the Internet without acknowledge them (Q17)	Disagree	2	0
	Strongly Disagree	0	0
Write summary based on online abstract of a journal (Q18)	Disagree	12	12
	Strongly Disagree	2	0
Your friends e-mail you their complete assignment that give you framework to base your work on (Q20)	Disagree	6	8
	Strongly Disagree	0	0
Read online summary/review rather than read the full-length version (Q21)	Disagree	16	28
	Strongly Disagree	8	2
Change few lines of paper you have written for one class and submit it for another class (Q22)	Disagree	22	24
	Strongly Disagree	12	20

Table 5: Cross Tabulation for Ethics Concerning the Code of Conduct in Academic Field.

For section 3, ethics concerning one's doing over the Internet and computers results have seen that there are significant difference between male and female. Table 6 shows that the number of female respondents who had disagree on the act of exploring friends PC without their knowledge to be an ethical is greater than male respondents. However, female respondents are tending to explore friends PC without their friends knowledge with no such unethical feeling or feel guilty. In the one hand, both male and female respondents disagree with the act of creating virus and its antivirus to gain profit, and accessing website contains nudity/pornography for fun where females lead the males. On the other hand, both males and females were agree with the act of surfing the Internet, and receiving and using e-mail from friends to get their exam questions they just completed as an ethical.

Items	Scales	Gender	
		Male	Female
Explore friends PC without their knowledge (Q2)	Agree	7	13
	Disagree	11	10
Create virus and its antivirus to gain profit (Q3)	Agree	1	0
	Disagree	18	24
Surf the Internet with no purpose (Q5)	Agree	14	19
	Disagree	20	28
Access website contains nudity/pornography for fun (Q6)	Agree	0	0
	Disagree	20	28
Receive and use e-mail from friends to get their exam questions they just completed (Q11)	Agree	10	15
	Disagree	5	3

Table 6: Cross Tabulation for Ethics Concerning the Act Over the Internet and Computer.

DISCUSSIONS AND CONCLUSION

For the first objective, there was little haziness in identifying what is perceived as ethical behavior in IT usage. Even though the questionnaire had been divided into three categories, but yet it was quite difficult to state the item into definite perception whether it was to be ethical or non-ethical when it comes to the IT usage matter. Based on the data analyzed, almost respondents answered the questionnaire proportionate to the nature of the items were built in. For example, under section 1, items such as item 1, item 19 and item 23 to be said as ethical behaviors. They have seen the items as the advantage apart from the advanced in information technology. For items under section 2, almost respondents did not practiced the right code of conduct where they perceived the act of copying and pasting series of paragraph without acknowledge them, write summary based on online abstract of a journal, and rely on their friends complete assignment to base their work on to be as ethical behavior. Though, the fact is that those items were supposed to be rated non-ethical behavior in order to respect the academic integrity itself and also to gratitude the academic scholars for their contributions.

For the second objective, the analysis was done by ratings each item based on results for items in section 1 and section 2. For example, 90% of Thailand respondents agreed on the act of sending e-mail to friends to pass the exam question they just completed, use series of paragraphs copied and pasted from the Internet without acknowledge them, and use free software in the Internet to complete their assignment such as translating text; as ethical. While 100% respondents from Indonesia, Iraq, and Pakistan believe the act of accessing website contains nudity/pornography for fun was non-ethical. In reviewing the empirical literature on college cheating over the last 10 years, Elm and Nichols (1993) for examples research on situational factors has been narrowly focused on the efficacy of instituting honor codes to reduce academic dishonesty stemmed from cross-cultural differences. Therefore it is true for the ethics among international students towards IT is varied among countries and were influenced by cross-cultural differences.

Lastly, for the third objectives whereas focused to examine the effect of gender in computer and IT ethics. Previous researches, as well as Davis (1993) and Deborah (2004) found regarding gender as an indicator of ethical or unethical behavioral intention. Davis (1993) noted that men to rely on their attitudes toward an action when deciding to perform a computing act, whereas women rely on prevailing social norms. While Deborah (2004) believed about women to reach ethical judgments based on relationship rather than rights or rules. In fact this study focus more on the third objective, which was to examine the gender whether males or females had dominant influence in the ethicality matter regarding IT usage. Here, almost all categories rated with ethical and non-ethical behavior were dominated by females. This is maybe because the proportions for female respondents were greater than male respondents, where out of 100 respondents, 44 were males and the rest of 52 were females. Therefore the analysis done found that female were more ethical in concerning the use of software program, where females were agreed on installing non-genuine software, use website/software to create bibliography, use free software in the Internet to complete assignment, use software program that select important points and organize them into summary, and use character spacing, line spacing, and margin sizes options in software to increase the length of the paper to be as the ethical behavior.

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