

Information Ethics in Paperless Hospitals

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ABSTRACT

Nowadays there are many paperless hospitals were built and going to be build. It seems that the two codes given to the medical practitioners and nurses are not enough as guidance for the healthcare professionals. This is because they are not only deal with the patient's information, but at the same time they also have to be good in using the computer systems to ensure the security of the information. They should have guidelines in handling information in the computer system because of the variability of human behaviour due to the very dynamic nature of cyber space. At the moment, there are no written guidelines which can be followed by the healthcare professional in Malaysian public hospital. They only base on the verbal guidelines given by the tutor during their first training week. But after a few years, there is no special training provided for the new staff. They will only learn all about the system in their ward, given by the senior staff. This paper focuses on the information ethics in Malaysian paperless hospital because of the variability of human behaviour due to the very dynamic nature of cyber space. Currently, Malaysia has implemented two paperless hospitals, which has been fully operated. These hospitals are using computer information system as a medium to improve their operation efficiency. The objective of this study is to design an ethical framework towards a successful paperless hospital implementation. The methodology starts with a literature review on ethics that related with the information system handling. From all of the information, a framework of code of ethics for healthcare professional in

handling the patient's information will be draft. The draft framework will be put in a questionnaires form and will be distributed randomly to the healthcare professionals. The respondents will be interviewed after completing the survey and many of their comments were directed to specific items in the survey. The research will come out with five major code of ethics which are the confidentiality, information protections, password management, computer used and internet used. It is hope that the ethical framework will help in guiding the healthcare professional to act in an ethical manner while using the medical information system in Malaysian public paperless hospital. It is also important in their interactions with society and their colleagues and for the conduct of medical research.

1. Introduction

The use of computers in today's business decisions has both revolutionized and benefited business. Yet, misuse of computers and unethical behaviour related to computer application systems has resulted in serious losses to business and society. As never before, computer-based technology provides organizations the opportunity to have almost instantaneous access to vast amounts of critical information about customers, competitors, employees, and suppliers. Unfortunately, recent incidents involving software piracy, computer viruses, data theft, system espionage and employee monitoring have emphasized the potential for unethical behavior associated with the use of information technology (IT).

Nowadays, information is a source of power and the key to prosperity among those who access to it. Consequently, developments in information systems also involve social and political relationships, and that make ethical considerations in how information is used are important. Electronic systems now reach into all levels of government, into the workplace, and into private lives to such an extent that even people without access to these systems are affected. New ethical and legal decisions are necessary to balance the needs and rights of everyone.

Every organization is concerned about the ethical issues among their staff especially hospitals that handle important and valuable information. Ethics among staff is important in order to make sure the successful of the organizations and to get customers' trust. Some research shows that there is some of the healthcare professionals face an ethical problem while handling their patients' information. If these problems are not taken care of, the hospital will receive a bad reputation.

1.1 Ethics

Ethics in computing is not about computers; it is about people, even though many point an accusing finger at computers for such things as threats to privacy.

Ethics, which addresses precisely such concerns, is not about rules or about 'codes of conduct'. Both can help us, but ethics is about making free choices. Ethics is about behaviour and about ways of thinking, especially in situations where our choice can affect the dignity and well being of others. Because ethical behaviour implies free choice, it cannot be captured in rule. The standard of reference for what is ethical has to exist 'outside human definition', and therefore cannot be open to human negotiation. It is impossible to force adherence to that standard: the notion of coercion itself is foreign to it. But individually we can make a promise to abide it.

Ethics should be thinking as the system of moral principles and rules that becomes standards for professional conduct. Ethics question the basic fundamental of morals of any action to judge if it is acceptable. [5]

Medicine always aims to promote health, prevent and cure diseases. With the advancement of technology today, there are many methods was introduced. However, some methods are rather controversial in nature i.e assisted conception. Medical ethics is applied to keep track of what is right and what is wrong in the different area of the health care. [4]

1.2 Information Ethics

Information or data protection seems to be a primary concern. There is a great need for some form of regulation concerning the collection, processing, storage and communication of medical data including images such as x-rays and eye scan. There must be strict control over this sensitive information. [8]

The patients' information can be used for any unethical purposes such as; the insurance company will use the information to ask the patients' family to buy their insurance, and the irresponsible people will humiliate the patient among their neighbours, officemate, relatives and friends.

Despite having given their consent, patients have a right to expect that information systems are secure and will not in any way violate their privacy. Hence the method must ensure that the confidentiality of the information is always preserved, particularly when it involves the movement of information from one location to another electronically. It is ethically inappropriate to carry on providing the services if the system fails to safe guard the confidentiality of the patient information that is of a sensitive nature. Disclosure of this is a betrayal of trust.

Therefore measures must be taken to ensure that unauthorized interception can be prevented. Even if the transmitted information is intercepted, it cannot be read and therefore the information is not valid. A comprehensive legal and ethical framework is necessary for the protection of the patients' rights. [4]

In Malaysia, Ministry of Health (MOH) has Code of Conduct for medical officers and nurses. [2][1] This code of conduct guides them to be good practitioners while performing their duty. It includes a practitioner with patient manner, practitioner with outsiders' manner, and among the practitioner themselves.

Even in other countries, the hospitals also focus more on the patient's care, and only part of the code of ethics focus on the patient's information handling. For example in the Medical Ethics Manual, published by World Medical Association (WMA), state that:



Oaths and codes vary from one country to another and even within countries, but they have many common features, including promises that physicians will consider the interests of their patients above their own, will not discriminate against patients on the basis of race, religion or other human rights grounds, will protect the confidentiality of patient information and will provide emergency care to anyone in need. But, it only focuses on the way they interact with patients directly, not through the computer system.

2. Malaysian Paperless Hospital

The Malaysian Government is the major provider of healthcare for its people. Other important providers contributing to the welfare of the population include the private sector and non-government organizations (NGOs).

The Malaysian Fourth Prime Minister, Tun Dr. Mahathir Mohamed , had mentioned that *“By the year 2020, Malaysia is to be a united nation with a confident Malaysian society, infused by strong moral and ethical values, living in a society that is democratic, liberal and tolerant, caring, economically just and equitable, progressive and prosperous, and in full possession of an economy that is competitive, dynamic, robust and resilient.”* [3]

The goal to achieve “Vision 2020” has been accepted as the national target for excellence by the whole nation in its endeavour for developed nation status. In healthcare provision, as in other area of concern this vision continues to be the impetus inspiring all healthcare providers to excel.

In Seventh Malaysian Plan, it was stated that there will be 33 paperless public hospitals in Malaysia. There will be 8 hospitals using Total Hospital Information System (T.H.I.S), while the other 25 smaller hospitals will use the Hospital information System (H.I.S). But due to the economic crisis in 1998, those projects were put on hold, and are expected to be implemented during the eight Malaysian Plan. [6]

But, until now at the early of nine Malaysian Plan, only two hospitals were known as paperless hospitals, while other hospital are still on hold. Some of the hospitals are not fully operated because they are still testing the systems.

At the moment, these two hospitals were not having any code of ethics in handling patient’s computer-based information system. All healthcares professional (the physicians, the IT department staff and the record department staff) will only practice their own department’s policy or code of conduct. But, in order to make them understand more about the system they used, it is might be better if there is one standard code which can be read and practice by them.

3. Methodology

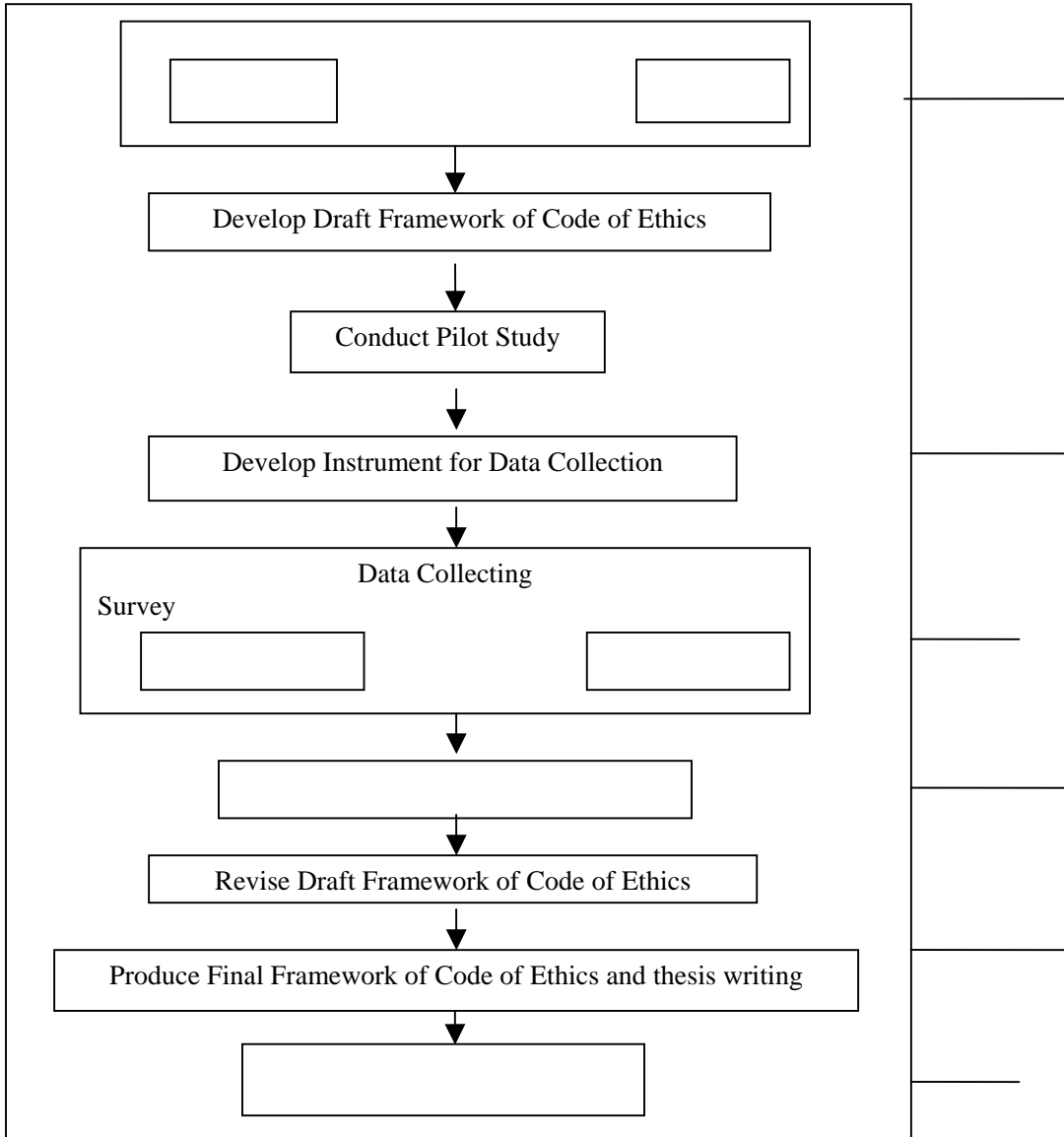


Figure 1: Research Design

Figure 1 shows how the research will be conducted. The research process consisted of four phases. First, a comprehensive literature search was conducted to compile those codes recommended by several organizations, as well as those suggested in various articles and publications. Then, those codes have been compiled into a questionnaire form. The questionnaire will let the respondent to validate the codes whether it is accepted and can be practiced in their working area or not. A pilot study has been conducted to ensure that

the questionnaire is as clear as possible and will be able to measure what it is supposed to measure. Besides improving the questionnaire, the feedback and the data collected will be used to provide some initial view of codes needed in the hospitals.

Second, hospitals were identified that using computer-based information system in handling their patient's information. The finalized questionnaire has been distributed to healthcare professional in those hospitals.

The research was using a Multiple Perspective Approach by Linstone to get an ethical view from the three 'lenses', technical view, organization view, and personal view of ethics. There is personal ethics, technical ethics and organization ethics in an organization. But, there is no code that can be use by these three groups. So, the research will combine all code which can be practice by these groups. Figure 2 will show the relationship between the ethics and the practitioners.

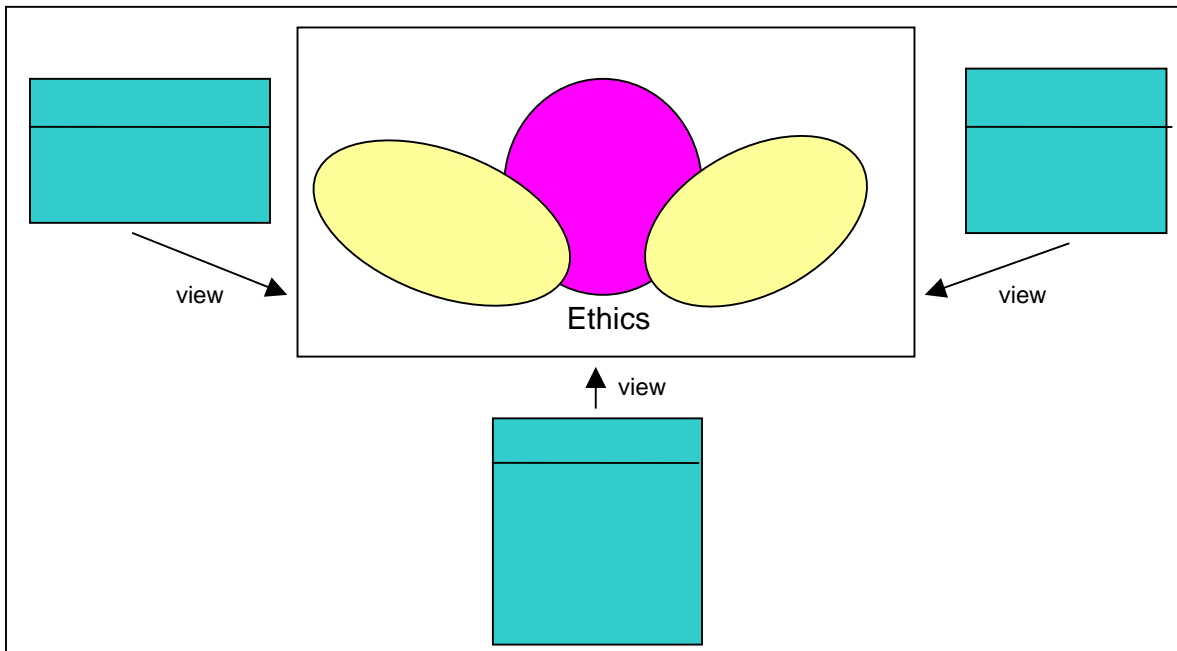


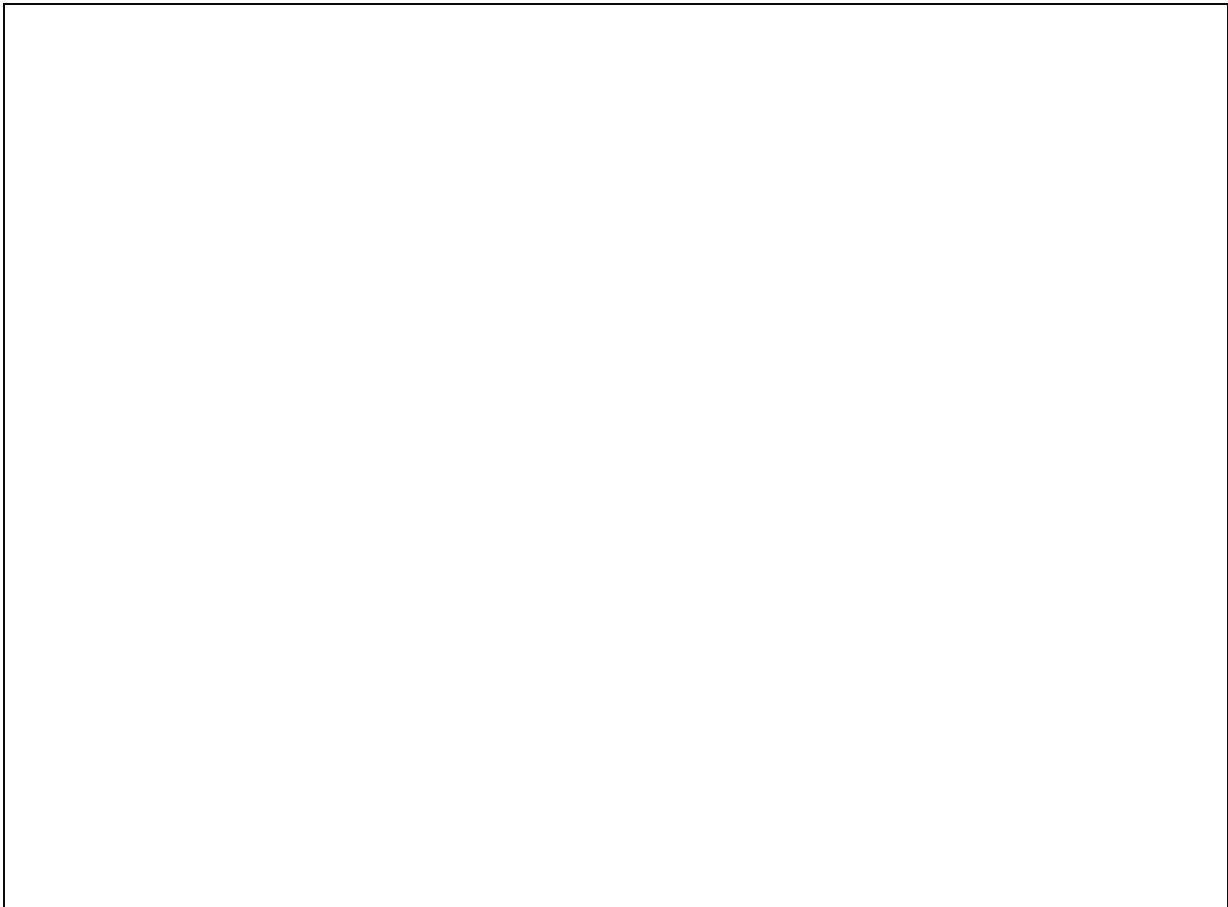
Figure 2: Multiple Perspectives Model of Medical Information Code of Ethics

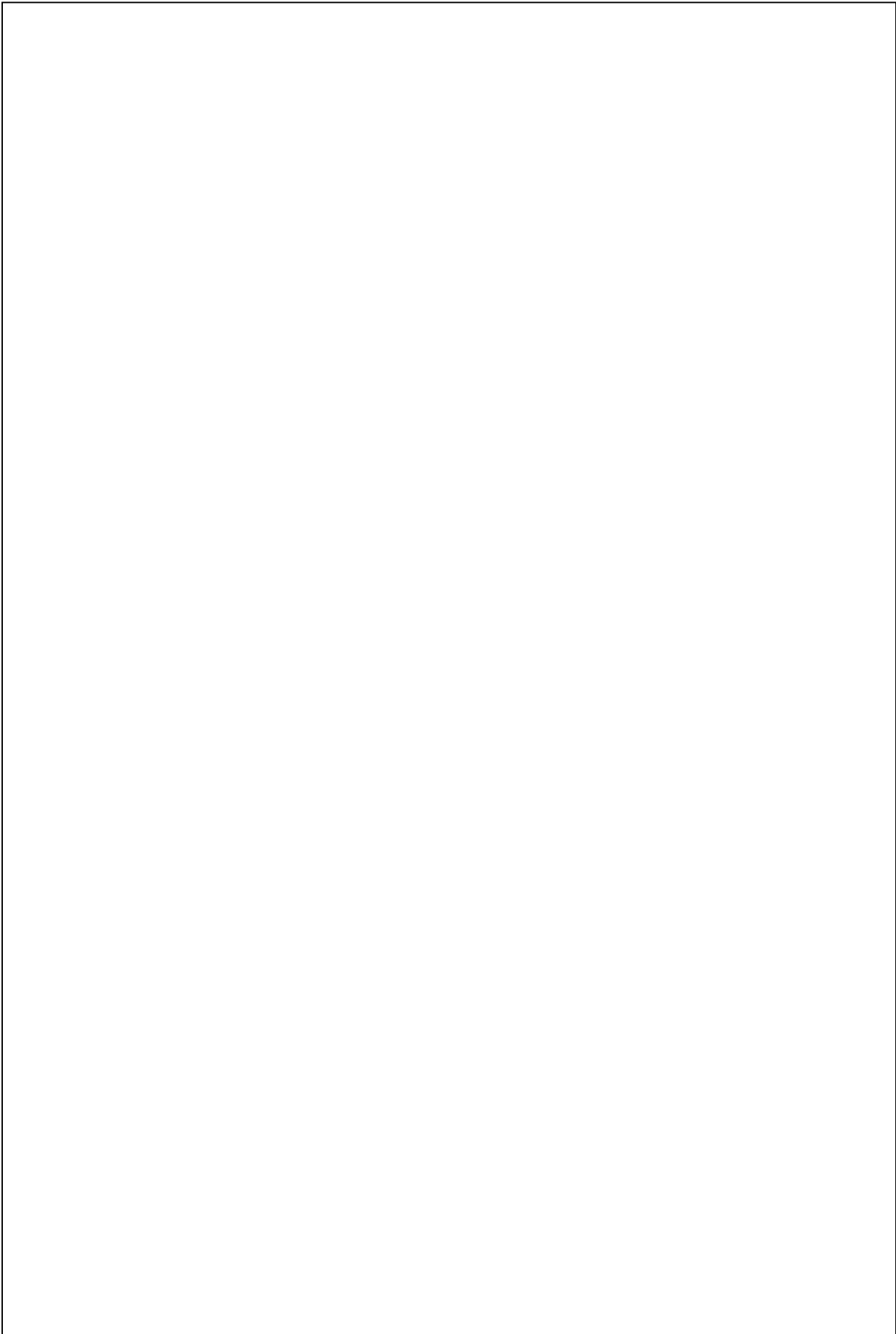
The physicians are including the medical officer, medical assistant, nurses, and attendants. While the administrative will be include the staff in Record department staff, and the IT personnel are those who work in IT department.

Third phase is where all the data collected by questionnaire and interview will be analyze. Then a final code will be produce. The last phase is writing a thesis.

4. Ethical Framework

Figure 3 represents the final code of ethics framework resulting from this study. The hospital's analysis of the data and information from the interviews resulted in the elimination of 3 codes. Several codes were combined because they addressed the same issue(s) and were related to each other. The final outcome is a list of 26 codes that are essential to guide the ethical manner in handling patient's computer-based information system. This code may assist other organizations to come out with their code of ethics in handling computer-based informations.





4.3 access to ONLY specific patient's information for specific purpose

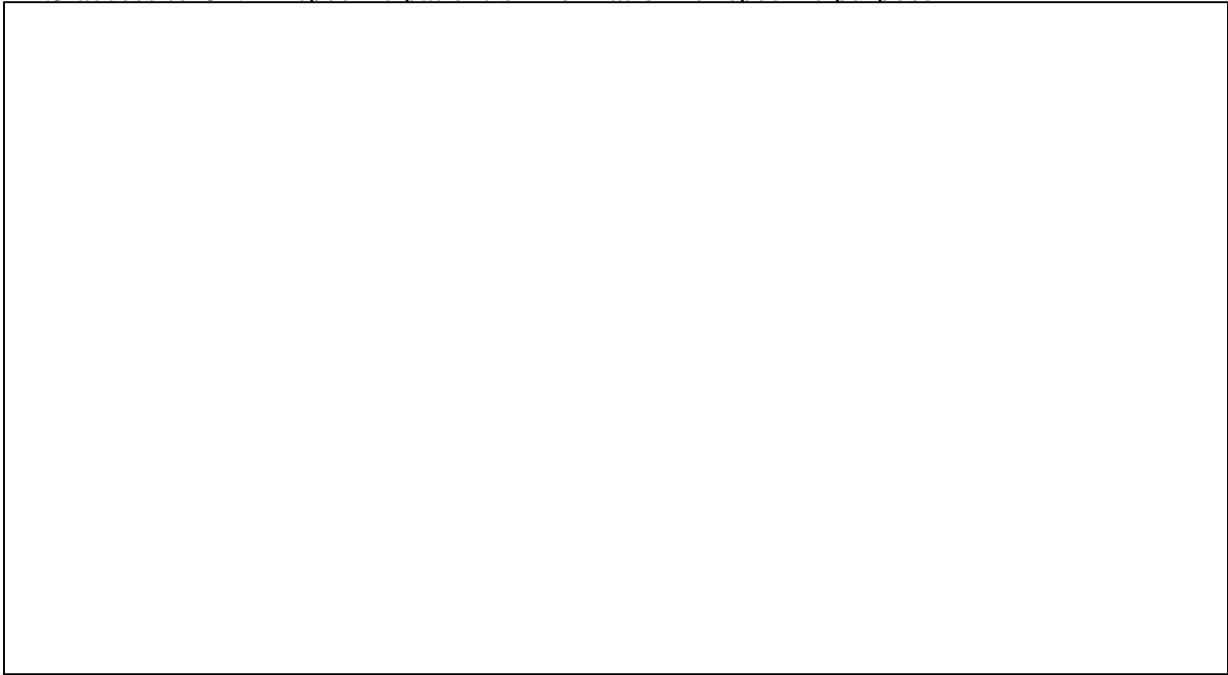


Figure 3: Ethical Framework

5. Suggestions

In Malaysia, since they are moving towards a paperless hospital, this research try to come out with framework of code of ethics for practitioner just for handling patient's information system. A Linstone's Multiple Perspective Approach was used to design the code. This is because the approach was useful for organizing a description to aid in understanding all points of view. [7]

The ethical framework will describes to the practitioner what is expected of them whilst performing their duty. This way the role of the practitioner is clearly put in perspective. Patients can be confident that they will receive quality care and their rights will not be violated in anyway. Without a framework, it will be difficult to determine the moral obligation of the practitioner towards the patient. The framework is to ensure that the quality of care is not compromised and hence to improve clinical effectiveness which is one of the aims of any health authority. [4]

6. Conclusion

Medical information consider confidential because it is related to the people's life. No matter who are the people, whether he is an artist, minister, or student, health information can influence their life style, and other people perceptions about them. That is why the ethical framework is very important in preventing the information.

It is hope that the ethical framework can be use to let the practitioner to act in a manner which recognizes their responsibilities toward society, to demand that the personnel are of the highest calibre, and to demand that a mechanism exists to protect society from those personnel that who do not, or cannot, live up to these responsibilities.

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Author's brief description



I am Sapiyah Sulaiman, student of Master Science by research in Universiti Teknologi Malaysia, Skudai. My research area is on information ethics, focused on handling patient's computer-based information system in Malaysian public hospital (paperless hospital). Previously I have done a research on the same area but focused on comparing the ethics in paperless hospital and conventional hospital. Based on the result, I continue my research on proposing a code of ethics framework for paperless hospital in Malaysia.