

Chapter 60

Legal Issues in E-Healthcare Systems

Jawahitha Sarabdeen
University of Wollongong in Dubai, UAE

ABSTRACT

E-healthcare systems through electronic medical records (EMRs), electronic prescribing and decision support systems endeavour to reduce the cost and errors in healthcare, while facilitating easy access to it. However the adoption of e-healthcare systems does not seem to be flourishing as expected due to various barriers. One of such barriers is an inadequate level of legal protection or unawareness of availability of laws and regulation that addresses the e-healthcare system. The objective of the study of this chapter was to investigate the present status of law relating to privacy, product liability, jurisdiction of courts in e-health care disputes and professional negligence. The study recommends that the existing offline and e-commerce laws should be interpreted to address many e-healthcare concerns even though specific e-healthcare laws are not enacted by many nations.

INTRODUCTION

High technological development in information and communication technology has enabled the public to carry out various medical related activities via Internet. Creation, modelling, management and sharing of health data and knowledge to support data analysis and timely decision making in medicine and health care created various opportunities and challenges to the healthcare providers

and the patients. The move towards e-healthcare in various countries is envisaged to reduce the cost of provision of healthcare, improve quality of care and reduce medical errors. In addition, it gives the public the information they need to make informed choices about their health and their healthcare. It also helps to develop capacity to process very large volumes of data for public health surveillance quickly and efficiently to allow early detection of threats (e.g. flu outbreaks, adverse drug reactions). In the process, there are all relevant information about the patient that

DOI: 10.4018/978-1-4666-2770-3.ch060

is stored in the computer system of the medical practitioner and other related parties for record and reference purposes. However, storing such information in the computer or system is not at all secured due to the availability of technology that may circumvent or get access to the said information. This could be a threat to the privacy and security of the patient. Regulatory compliance and liability issues arising from the use of information technologies and possibility of privacy and other related violation in health care industry should be given important consideration. That is because the progression of e-health industry is dependent upon and influenced by the rapidly changing advances in law.

Major issues in adopting e-healthcare system lie in patient privacy, trust, product liability and negligence in handling medical data. These concerns are affecting the adoption rate and usage of these e-healthcare systems. Unless deliberate efforts are taken to secure these systems from design to implementation most of the development achieved to date may not be realized and rolled out to the real world. A 2006 survey found that 75% of the physicians agreed that e-health in US could help to reduce errors while 70% of them felt that it could help to increase productivity. The survey further noted that implementation and adoption of e-health are lacking in many countries including USA and European countries due to various barriers. One of such barriers is a lack of legal protection on protection of privacy and other liability issues (Anderson & Balas, 2006). Thus this chapter of the book will analyze four legal issues of concern. The analysis will include the legal framework adopted by European Union, USA and UK where necessary. The four legal issues are privacy, product liability, jurisdiction of courts in e-health care disputes and professional negligence. It is worth mentioning that e-health encompasses e-commerce, e-marketing, and all forms of medical services, decision support and e-business intelligence in health care and the e-home care application. Specific laws addressing all

the issues of health care system are not available in many countries. So, it is common to see that the offline laws and e-commerce laws are being extended and interpreted by the courts and authors to cover cases of common in nature. For example European Union's Directive on Data Protection can be extended to cover medical data too. This chapter where necessary will analyse offline laws and e-commerce laws which can be extended to elaborate e-health issue.

PRIVACY PROTECTION IN E-HEALTHCARE SYSTEM

Medical records are lifetime history of every patient. Thus proper recording, keeping and retrieving remain burdensome but necessary for accurate medical assessment and clinical interventions. Clear and quality records are also important for better communications between medical professionals, patients, care takers and other relevant stakeholders. Various studies suggested that privacy concern was an issue that requires legal protection as technology could be used to misuse health data with ease without cost. Data of patients could be easily collected and used or misused without their consent. The success of the implementation of e-healthcare system to a great extent depends on the availability of legal protection. The term privacy is from the Latin word "*privatus*" which means withdraw from public life, and or to have seclusion from the public (Raymond, 1978). Privacy is recognised as a fundamental right in Article 12 of the United Nation's Universal Declaration of Human Rights 1948 despite the fact that there is no single acceptable definition is available. Article 12 of the said Declaration stipulates that "no one shall be subjected to arbitrary interference with his privacy, family, home, or correspondence, nor to attack upon his honour and reputation. Everyone has the right to the protection ". Warren and Brandeis in 1890 mentioned that this right refers as one's

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