

## Chapter 7.1

# eHealth and Ethics: Theory, Teaching, and Practice

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### ABSTRACT

The use of information and communication technologies (ICT) is increasing rapidly in many spheres of contemporary life in Europe. The ethical use of ICT in all areas of its application is of growing importance. This is especially evident in the field of healthcare. The regional, national, and Europe-wide electronic aspects of health services and systems are related fundamentally to these two developments. This chapter explores the relevance of ethics to eHealth generally. It outlines

two main contrasting ideas that have influenced ethical thought: Kantian ethics and consequentialism. It investigates the ways in which teaching and practice for ICT professionals and trainees can be enhanced and extended to increase the awareness of ethical issues in eHealth. It takes as examples two technological applications that are in increasing use in the eHealth field: electronic health records and radio frequency identification devices. The chapter ends with a brief discussion and conclusions about how this ethical awareness can be expanded beyond ICT professionals to other stakeholder groups, and to other eHealth technologies or applications.

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## INTRODUCTION

eHealth has variously been referred to as medical informatics or medical information systems, clinical informatics or clinical information systems, health informatics or health information systems, or information and communication technologies (ICT) for health (Duquenoy et al., 2008a). A number of definitions have been outlined in both the academic literature and in policy-related documentation (COM(2004) 356 final; COM(2007) 860 final; Eng (2001); Eysenbach (2001); Oh et al. (2005); Pagliari et al. (2005)). In this paper, we have selected from the text of the eHealth action plan (COM(2004)356, p4) one of the more pragmatic definitions:

*[eHealth] describes the application of information and communications technologies across the whole range of functions that affect the health sector.*

This paper is written in the context of health as it affects people's daily lives, enhances the overall well-being of Europe's citizens, and influences the continent's social and economic status. We focus on health supported by electronic means.

The paper describes what eHealth is, what ethics is, and how the two relate to each other particularly within a teaching or training context.

It is directed chiefly towards raising ethical awareness about eHealth applications for ICT professionals and for trainee or prospective professionals. Choosing a comprehensive definition of eHealth enables us to explore ICT applications in their variety and richness. Here, however, we concentrate our analytical efforts on radio frequency identification (RFID) devices and electronic health records.

The paper is completed by asking whether, and in what way, this ethical awareness can be extended to the design, implementation and use of other types of eHealth-related applications, and included in the education and training of other

stakeholders. While the proposals outlined here limit themselves to the European scene, they can certainly be extended to a wider, international, perspective.

The paper is particularly intended as a complement to the longstanding work of Professor Gunilla Bradley who focused her ideas so keenly on the importance of human needs in relation to ICT, and has always had a profoundly holistic approach to ICT (cf. Bradley, 2009).

## EHEALTH IN EUROPE: GENERAL OVERVIEW

eHealth has been under development in Europe for two decades and, elsewhere, for over four. In the European Union, the early foundations of eHealth were laid in the late 1980s. Pilot studies were co-financed as early as the second stage of the European Union. From an initial funding of €20 million in 1988, investment in this domain of research and development later expanded tenfold during its Sixth Framework Programme (2002 to 2006). The Commission is now co-financing the Seventh Framework Programme that runs from 2007 to 2013. The amount of financing provided by the Commission dedicated to eHealth in this latest Framework Programme over this time-period is expected to be well over €200 million.

Large amounts of co-financing are now being invested in the deployment of eHealth. The research and development commitment of the Commission has been paralleled by work on the practical aspects of eHealth in the Competitiveness and Innovation Framework Programme (CIP) Information and Communication Technologies (ICT) Policy Support Programme (PSP) (more frequently known simply by its abbreviation as the CIP ICT PSP). This scheme supports the practical advance and integration of ICT use in various public sector domains among the Member States. In eHealth, the ministries of health, eHealth competence centres and industry partners in 12

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