Chapter 8.2
Healthcare Organizations and the Internet's Virtual Space:
Changes in Action

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ABSTRACT

For some years now, the opportunity of innovating business models has basically been linked to continual progress in ICT. Healthcare is no exception; information and communication technologies are generally considered the most effective driver for changing organizations, improving quality, optimizing resources, and so forth, at least in theory. In practice, it is not clear which and how many of these opportunities are really exploited by organizations operating in healthcare. This chapter presents the results of a research project aimed at understanding to what degree and how Italian healthcare organizations make use of the virtual space made available to them by the Internet.

INTRODUCTION

"Who doesn't know the Internet?!"

This is certainly one of the most common answers when hospital patients are asked about their knowledge of the Internet phenomenon.

In fact, it is likely that the word Internet is one of the most common and widely used in Western societies. Whether walking in the streets of New York, Paris, London, or Rome, if passersby are asked the simple question, "What is the Internet?" the answer is always the same: The Internet is something that enables us to communicate, read, learn, play, purchase goods and services, make transactions, and more.

The answer does not vary. Often, in fact, people do not know the technology behind the Internet, but they know what it can be used for. In other words, people know how to use technology even

if they do not know how it works (which can be said for many new technologies).

Certainly, new technological developments and their awareness can only increase further thanks to the spread in recent years (or rather in recent months) of mobile communication devices. Equally, it is easy to predict the same happening in developing countries: Because of its low cost, the Internet is often preferred to the telephone for communication with these countries.

The Web, therefore, has changed our lifestyle, our habits, and our way of working, interacting with our acquaintances, and, in few words, dealing with so many aspects of our daily life. We no longer have to physically go to the bank but can transfer money and check our account balances by logging on to our bank's Web site. In the same way, booking our holiday is easier when we can click on the site of a tour operator. The list goes on and on: We can shop online instead of at our local supermarket, or buy books and DVDs from a company abroad.

In the world of healthcare, this revolution has yet to be realized, at least fully. In recent years, literature has often indicated how the digitalization of clinical, organizational, and management processes of health structures brings undeniable benefits both for the efficiency and effectiveness of the company, as well as improving the quality of service offered to patients (Coile, 2002; Goldstein, 2000; Nicholson, 1999). More particularly, the Internet considerably affects the entire process of the creation of the value of a healthcare organization (HCO) if we consider the following:

- It gives the organization a global presence
- It means it can offer more services that are more readily available to more users
- It allows the collection and elaboration of a greater amount of information
- It provides a new channel, the World Wide Web, through which it is possible to transfer information, provide services, make transactions, and create a privileged area of interac-

tion between physicians and patients

The possible applications in a healthcare organization, limited only by the state of the art of technological development, can be schematized according to their functional characteristics.

THE INTERNET AS A TOOL FOR REDUCING GEOGRAPHIC DISTANCES AND AIDING THE DISTRIBUTION OF SERVICES OF A HEALTHCARE ORGANIZATION

The opportunity to provide services in inaccessible areas is one of the aspects of the Internet that has multiple applications for healthcare:

- **Home monitoring:** This service allows the patient to be cared for at home, or in the most convenient place, either through prearranged or automatic transmission of signals and vital parameters, or through the sending of alarms activated by predefined emergency situations. Healthcare personnel can also call back and give instructions to the patient or to semiautomatic equipment.
- **Telemedicine:** This is the provision of a treatment service or remote assistance in the form of tele-consultation, tele-presence, second opinions, Electronic Medical Record, (EMR), and so forth. Generally, these services are offered via the Web and may involve videoconference connection between the patient and the doctor or between medical personnel.

The Internet as a Tool for Sharing Information

The Internet is a special way to exchange information:

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