Introduction

The Internet and Healthcare: Opportunities and Challenges

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The Internet is arguably the most important telecommunication innovation of our time. In just a few short years, it has profoundly changed the way and manner we communicate with others, and how we seek and obtain information, goods, and services. The changes brought about by the Internet are laying the foundation for a growing revolution in healthcare.

Like the telecommunication innovations of the past such as the telegraph, telephone, and television, the Internet presents enormous opportunities and challenges. The Internet provides both consumers and health professionals alike the ability to rapidly access enormous amounts and types of healthcare information at virtually anytime or place. It also enables them to communicate with a virtually worldwide community.

For consumers, the Internet provides information empowering them to make more informed and sophisticated choices. For example, consumers can connect with the Internet and obtain information on the nature and seriousness of diseases they or their friends and relatives are suffering from. They can join cyber-support and self-help groups where members share their experiences, provide each other with support, and information on the latest medical advances and treatments. Consumers can use the Internet to obtain information on which physician or specialist to see, which hospital or clinic to use, where to obtain prescription medicines, and which health insurance company to purchase coverage from.

The Internet is also changing the way consumers relate to physicians. Consumers are becoming more medically literate and, as a consequence, there will need to be a shift in the physician–patient relationship that focuses on sharing resources and negotiating treatments. Practitioners will need not only to review and evaluate
relevant Internet sites regularly, but to offer advice on locating accurate and up-to-date information.

For medical professionals and healthcare institutions, the Internet is being increasingly used to improve the quality of care and, at the same time, lower costs. For example, physicians are using the Internet to connect with other physicians and specialists to share and obtain information about complicated medical cases. They are using the Internet to look up drug information, check drug formulary lists, and transmit prescriptions electronically to reduce medical errors. Physicians and other medical professionals are using the Internet to keep abreast of changes in the field by taking on-line continuing education courses and seminars. Hospitals and other healthcare institutions are also embracing the Internet to help reduce administrative costs, increase safety and reliability, improve communications between healthcare professionals, and improve overall efficiency.

Along with its enormous opportunities the Internet also poses many daunting challenges and problems. The sheer breadth of information it contains can be overwhelming. With thousands of healthcare Web sites, consumers have more information than ever to wade through. Unfortunately, many of these sites contain incomplete, misleading, or difficult to understand information, while others blur the distinction between advertising and medical advice. At present, untrustworthy healthcare Web sites far outnumber the trustworthy ones (i.e., universities, medical centers, and government agencies).

Some consumers may use online consultations as substitutes for a physician's visit, ignoring disclaimers that the Internet sites are not medical practices. Appropriate medical care may be delayed—or come too late.

Despite the skyrocketing growth of the Internet, many physicians are still reluctant to use it. Some physicians refuse to use it because they are concerned about not getting reimbursed for providing care over the Internet. Others fear possible malpractice suits. And others are concerned that the increasing use of the Internet will ultimately lead to the impersonalization of medical care.

The Internet may promote the inappropriate use of prescription drugs and quackery. There are many illegal drug-dispensing companies on the Internet, which promise deep discounts or a minimum of hassles to obtain prescription drugs. Purchasing medications from these sites may put the consumer at risk. He or she may receive a contaminated or counterfeit product, the wrong product, an incorrect dose, or no product at all. The Internet also abounds with sites offering quack remedies for a host of diseases ranging from the common cold to advanced cancer.

Another important problem is the Internet may promote unhealthy activities such as the use of illicit drugs, gambling, and risky sexual activity. At least one known epidemic of syphilis, for example, has been linked to an Internet chat room.

The purpose of this special issue is to address some of the more significant opportunities and challenges of the Internet upon healthcare. Specifically, the articles in this special issue are divided into six broad topical sections: overview; quality of information; access to information; applications; physician–patient relationship; and future initiatives.

In the first section, overview, Judith A. Levy and Rita Strombeck present a fair and balanced summary of the promises and problems of e-health. They discuss both