

Chapter 7.3

Medical Ethical and Policy Issues Arising from RIA

Jimmie L. Joseph

University of Texas at El Paso, USA

David P. Cook

Old Dominion University, USA

INTRODUCTION

New technologies can lead to social upheaval and ethical dilemmas which are unrecognized at the time of their introduction. Medical care technology has advanced rapidly over the course of the past two decades and has frequently been accompanied by unforeseen consequences for individuals, the medical profession and government budgets, with concomitant implications for society and public policy (Magner, 1992; Marti-Ibanez, 1962).

Advances in information technology (IT) during the last decade and a half are now impacting the medical profession, and the delivery of medical advances, in ways that will impact public policy debates for the foreseeable future. The World Wide Web (Web) makes information that was once the eminent domain of medical professionals available to average citizens who are increasingly demanding medical treatments from the leading edge of medical technology. For example, CenterWatch (www.centerwatch.com)

provides a wealth of information concerning clinical trials and offers a conduit by which patients can become involved in such studies. The availability of such information has also led to patients suffering from life-threatening diseases not part of such clinical trials to request special access to potentially life-saving therapies. As a result, the Web is increasing the complexity of answering public policy questions surrounding what medical technologies to make available to the public, who will be eligible to receive new medical treatments, and at what cost.

BACKGROUND

In medicine, it has traditionally been the medical practitioner who has possessed the greater breadth and depth of information and knowledge in the provider-patient relationship (Magner 1992; Porter 1992; Robinson 1931). This condition, where one party has more information in a transaction than another party or parties (relative to the transac-

tion), is known as information asymmetry. The existence of information asymmetry, in many transactions, has created the need to develop public policies to protect the interests of parties with less information (Akerlof, 1970; Hellwig 2001; Nayyar, 1990).

The risk of false advertising, the presence of disclaimers for contests, the existence of lemon laws for cars, and insider trading laws all attest to the need for societies to establish guidelines to handle the ethical issues which can arise from information asymmetry. Public policy has been designed to protect medical services consumers from the potential deleterious effects of information asymmetry (Akerlof, 1970; Hellwig, 2001; Milgrom & Roberts 2001). Specifically, it has dictated that doctors and other medical professionals be licensed in the nation, state or province in which they practice (Davies & Beach, 2000; Digby, 1997; Fournier & McInnes, 1997). Laws governing the practice of medicine, and what is acceptable and legal in the course of treatment and medical experiments have been developed. Oversight boards have also been established to ensure healthcare providers offer care in accordance with standards of care (Fournier & McInnes, 1997). Such precautions are intended to increase patients' confidence in the care being provided, even under the yoke of information asymmetry. The precautions do not reduce or eliminate the presence of information asymmetry.

A commonly held belief is that information parity, and information access that moves parties in transactions toward parity, is the cornerstone for the elimination of the ethical quandaries introduced by information asymmetry (Akerlof, 1970; Diamond, 1984; Hellwig, 2001). Until recently, medical information has presented two problems for the lay person: accessibility and comprehensibility (Ghalioungui, 1963; Marti-Ibanez, 1962; Magner, 1992; Porter, 1992; Robinson, 1931).

Accessibility refers to the opportunity to find, as well as the ease and convenience associated with locating, information. Medical journals are expensive, and prior to online libraries, many university libraries prided themselves on the expansiveness of their collections of journals.

For a patient with a medical problem, or a family problem, a primary constraint was the ability to locate and access the salient medical information dealing with the problem. If the patient did not live in a town with a medical school, he or she would have to depend on the local library's often sparse repository of medically-related offerings to search for relevant information. Generally, assuming the patient could identify an appropriate source of information, it was not locally available (Digby, 1997; Matthews, 2000). This would necessitate relying upon the availability of inter-library loan or a trip to the library that held the sought-after text or journal. More likely than not, however, the affected patient would not have the ability to reference such medical resources. Most commonly, the patient's knowledge of medical treatment options was limited to that offered by a medical care provider, word-of-mouth, or from popular press publications. Historically, lack of information accessibility has been a powerful protector of information asymmetry.

Even if patients could locate and access relevant medical information they were still faced with the problem of comprehensibility. Medical journals are written for an audience with a minimum understanding of biology, chemistry, physiology, anatomy, biochemistry, and pharmacology. There is a requisite base of knowledge for understanding medical texts and journals, and much medical literature is written for an audience with specialized knowledge of a particular field of medicine. For the lay audience, such literature is virtually indecipherable.

With the practically insurmountable twin problems of accessibility and comprehensibility, patients received most of their medical information through the filter of the physician. Few physicians could be considered members of the *avant garde*. Consequently, patients were more than likely to learn only of medical therapies with which their physicians were familiar (Marti-Ibanez, 1962; Porter, 1992; Robinson, 1931). Thus, information on progressive treatments not approved for use, or uncovered by medical insurance, would not be widely disseminated to the general public through physicians. Further, licensed physicians familiar

8 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/medical-ethical-policy-issues-arising/26345

Related Content

Immersive Image Mining in Cardiology

Xiaoqiang Liu, Henk Koppelaar, Ronald Hamers and Nico Bruining (2009). *Medical Informatics: Concepts, Methodologies, Tools, and Applications* (pp. 935-943).

www.irma-international.org/chapter/immersive-image-mining-cardiology/26271

Human-Centered Metal Hydride Actuator Systems for Rehabilitation and Assistive Technology

Shuichi Ino and Mitsuru Sato (2011). *Handbook of Research on Personal Autonomy Technologies and Disability Informatics* (pp. 154-170).

www.irma-international.org/chapter/human-centered-metal-hydride-actuator/48280

Evaluating a Bio-Inspired Approach for the Design of a Grid Information System: The SO-Grid Portal

Agostino Forestiero, Carlo Mastroianni, Fausto Pupo and Giandomenico Spezzano (2009). *Handbook of Research on Computational Grid Technologies for Life Sciences, Biomedicine, and Healthcare* (pp. 712-730).

www.irma-international.org/chapter/evaluating-bio-inspired-approach-design/35718

Exudate Extraction From Fundus Images Using Machine Learning

Sindhu P. Menon (2022). *International Journal of Biomedical and Clinical Engineering* (pp. 1-16).

www.irma-international.org/article/exudate-extraction-from-fundus-images-using-machine-learning/290388

Feasibility Study of Few Mode Fibers as a Sensor

Chandana S, Amulya K L, Bhavana A M, Chaithra Band, Chaitra S (2018). *International Journal of Biomedical and Clinical Engineering* (pp. 14-30).

www.irma-international.org/article/feasibility-study-of-few-mode-fibers-as-a-sensor/204398