



**Chapter 3**

**Technology-Based Marketing  
in the Healthcare Industry:  
Implications for Relationships Be-  
tween Players in the Industry**

Grace Johnson, Anand Kumar, Arkalgud Ramaprasad  
and Madhusudhan Reddy

Southern Illinois University at Carbondale

The past few years have seen Web-based technology diffusing into a wide cross-section of industries, cutting across various barriers, and changing the way many companies do business. The healthcare industry, though relatively slow to adopt information technology (Eder and Darter, 1998), is no exception. Information technology is transforming the healthcare environment in ways that go beyond simple consumer health information Web sites (Hagland, 1997). Increasingly, the industry is leveraging information technology effectively to manage its business and address issues affecting patient care (Lankford, 1999).

At the heart of the healthcare industry lies the patient-physician relationship. The interaction between these two players usually occurs in a clinic/hospital setting. It is generally believed that the relationship between the patient and the physician is influenced not only by this interaction, but also by other interactions that a patient may have *inside* a clinic/hospital setting, such as interactions with nurses, staff, the registration desk, etc. However, changes brought about by information technology (a) allow players outside the clinic/hospital setting to influence the patient-physician relationship and (b) affect the way in which players and processes inside a clinic/hospital setting influence the patient-physician relationship. This chapter examines how Web

Previously Published in *Managing Healthcare Information Systems with Web-Enabled Technologies* edited by Lauren Eder, Copyright © 2000, Idea Group Publishing.

This chapter appears in the book, *Effective Healthcare Information Systems* by Adi Armoni. Copyright © 2002, IRM Press, an imprint of Idea Group Inc.

technology affects the patient-physician relationship through its impact on players and processes both *outside* and *inside* a clinic/hospital setting.

The healthcare industry is complex and comprises many relationships between different players in the industry, for example, physicians, patients, pharmaceutical firms, and insurance firms. These relationships are often developed as separate dyads that are independent of each other. This has led to the healthcare industry being described as diverse and disconnected (*Business Wire*, 1999). However, information technology is changing the industry by introducing technology applications that increase and strengthen *connectivity* between the different players in the industry. The increased on-line connectivity is influencing marketing practices within the industry, which in turn are affecting the dynamics of the relationships between the different players in the industry.

In this chapter, we focus on the impact of Web-based technology on marketing practices within the healthcare industry and its impact on the relationships between the major players in the industry. In particular, we focus on the relationship between the patient and his/her physician. The first part of the chapter examines the dynamics of this relationship in the context of exchanges and interactions that patients and physicians have with the pharmaceutical and insurance companies, i.e., players outside the clinic/hospital setting. We present a simple conceptual model that shows how relationships in the industry have evolved as a result of technologically driven marketing practices. In the second part of the chapter, we examine how Web technology affects the way in which players and processes inside the clinic/hospital setting influence the patient-physician relationship. Specifically, we explore how Web technology streamlines administration within a clinic/hospital, increases patient education about their illness, enhances communication between patients and physicians and leads to an overall improvement in the quality of patient care. We balance our discussion of the virtues of Web technology by briefly discussing thorny legal and public policy issues that have been raised by the use of this technology in the healthcare industry.

## CONCEPTUAL MODEL DEPICTING INFORMATION FLOW

The traditional flow of information between three important players in the healthcare industry has been *sequential* as shown in Figure 1.

The exchange that typically takes place between the pharmaceutical company, physician, and the patient can be depicted as sets of *informational exchanges* or *transactions*. Pharmaceutical companies communicate directly

18 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/technology-based-marketing-healthcare-industry/9221](http://www.igi-global.com/chapter/technology-based-marketing-healthcare-industry/9221)

## Related Content

---

### **New Models for ICT-Based Medical Diagnosis**

Calin Ciufudean, Otilia Ciufudean and Constantin Filote (2013). *Handbook of Research on ICTs and Management Systems for Improving Efficiency in Healthcare and Social Care* (pp. 892-911).

[www.irma-international.org/chapter/new-models-ict-based-medical/78060](http://www.irma-international.org/chapter/new-models-ict-based-medical/78060)

### **Ambient Intelligence and Pervasive Architecture Designed within the EPI-MEDICS Personal ECG Monitor**

Hussein Atoui, David Télisson, Jocelyne Fyan and Paul Rubel (2011). *Developments in Healthcare Information Systems and Technologies: Models and Methods* (pp. 302-311).

[www.irma-international.org/chapter/ambient-intelligence-pervasive-architecture-designed/46685](http://www.irma-international.org/chapter/ambient-intelligence-pervasive-architecture-designed/46685)

### **Personal Health Records Systems Go Mobile: Defining Evaluation Components**

Phillip Olla and Joseph Tan (2010). *Health Information Systems: Concepts, Methodologies, Tools, and Applications* (pp. 750-772).

[www.irma-international.org/chapter/personal-health-records-systems-mobile/49897](http://www.irma-international.org/chapter/personal-health-records-systems-mobile/49897)

### **Abnormal Uterine Bleeding (AUB) and Thyroid Function in Chhattisgarh**

Mukund Tiwari, Dr. Sarita Agrawal and Subarna Mitra (2017). *International Journal of User-Driven Healthcare* (pp. 29-41).

[www.irma-international.org/article/abnormal-uterine-bleeding-aub-and-thyroid-function-in-chhattisgarh/197794](http://www.irma-international.org/article/abnormal-uterine-bleeding-aub-and-thyroid-function-in-chhattisgarh/197794)

### **An Athletic Training Analysis System Research Based on Physiological Computation**

Ding Xiong, Lu Yan and Peng Qiong (2018). *International Journal of Healthcare Information Systems and Informatics* (pp. 54-67).

[www.irma-international.org/article/an-athletic-training-analysis-system-research-based-on-physiological-computation/198493](http://www.irma-international.org/article/an-athletic-training-analysis-system-research-based-on-physiological-computation/198493)