

# Chapter 5.12

## Using Hospital Web Sites to Enhance Communication

**Sherrie D. Cannoy**

*The University of North Carolina at Greensboro, USA*

**Lakshmi Iyer**

*The University of North Carolina at Greensboro, USA*

### INTRODUCTION

A large number of patients currently utilize the Internet to access healthcare-related information (Tobin, 2002). Many physician and health-related Web sites have been information portals lacking interactive services that could benefit healthcare partners through decreased costs, increased convenience, and communication. Patients typically visit Web portals to learn more about medical topics, often discussing this information with physicians.

Emerging Internet technologies can be a strategic asset for hospitals to impact physician bonding, patient self-service, and overall enterprise performance efforts. We conducted an investigation of Web sites of 10 hospitals listed in *U.S. News and World Report's* Best Hospitals of 2004 Honor Roll, as well as a random selection of seven other hospital sites. An examination of each hospital's site was performed to determine

what features were provided to enhance communication between the partners in healthcare. Partners are defined as patients and their families, referring physicians, insurance companies, vendors, pharmacies, job seekers, and the media. Communication-enhancing features are any features that have the potential to increase communication between the hospital and its partners. We focused on patient communication-enhancing features, since patients are the primary partners of healthcare entities.

### BACKGROUND

#### Healthcare Basis

A medical Internet Usage Survey conducted by the Health on the Net Foundation (2002) found that 57.95% of the respondents had used the Internet for more than four years. Of the patients

who responded, 21.62% correspond with their providers through e-mail and 75.52% have used online medical consultation services; 69.47% of physicians that responded stated that patients discuss information they found on the Internet with them, while 62.75% of those providers recommend specific information-based sites to their patients.

Healthcare can be improved through e-health services such as online patient pre-registration for admission, access to test results and medical records, insurance referrals and eligibility, access to reputable links for accurate healthcare information, patient forms and brochures, online support groups, access to clinical trial information, appointment scheduling and reminders, refill requests and authorizations, and e-mail capabilities. In implementing e-health “there is an urgent need for healthcare organizations to re-engineer their processes” (Wickramasinghe, Fadlalla, Geisler, & Schaffer, 2004), and physicians face obstacles such as “technologic barriers, resource priorities, and privacy issues” (Zingmond, Weilim, Ettner, & Carslile, 2001) that are secondary to providing excellent healthcare. Hospital and medical office sites can be enhanced to offer patient-centered services, while informing patients of their strongest services/specialties, convincing the patients that their organization is better than any general Web portal for accessing health-related information (Anonymous, 2001).

The drive for e-health initiatives can be patient driven, physician driven, or government mandated. “What is less clear is whether or not the services offered by healthcare organizations and the services that patients desire are the same” (Wilson & Gustafson, 2003). Government-driven initiatives include electronic health record implementation within the next 10 years which serves a dual-purpose: to allow hospitals and healthcare providers to access patient records in a standard format, and to decrease medical care errors. Veterans Affairs Secretary Anthony Principi stated that “one in every seven hospital admissions and

20% of lab tests occur because health records are not available to the clinician. More than one of every seven hospitalizations is complicated by medical prescription errors” (CNN, 2004). Thus, comprehensive electronic medical records which the patient, physician, or pharmacist can access are critical to reducing such errors. Access to these records may also be offered online so that patients can access them and check for accuracy or take them to a physician’s office to which they have been referred for further tests.

In a related initiative, the National Quality Forum (NFQ) sponsored a National Summit on Information Technology and Healthcare Quality in March, 2002, to examine a national healthcare infrastructure. The design principles stated by NFQ to aid in the infrastructure development (NFQ, 2002) are:

1. Care based on continuous health relationships
2. Customization based on patient needs and values
3. The patient as the source of control—encourage shared decision making
4. Shared knowledge and free flow of information
5. Anticipation of patient needs

### **Theoretical Basis**

The Internet can be considered a mass medium, and therefore, communications theories have been applied most frequently in this area (Merrill et al., 1996). Such theories applied include the learner-as-a-bucket theory in which the user searches for information and information is “poured” into the brain via a Web portal (Morris & Ogan, 1996). Another theory applied frequently is the critical mass theory, which states that the diffusion of innovation and adoption by about 20% of the population results in critical mass being achieved (Morris et al., 1996). Because use of the Internet, as well as other forms of electronic communication,

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/using-hospital-web-sites-enhance/26313](http://www.igi-global.com/chapter/using-hospital-web-sites-enhance/26313)

## Related Content

---

### Clinical Engineering in India: A Case Study

N. Sriraam, Nikitha Deepak, Pratibha Ashok Kumar, Priyanka Gopakumar, Shreya Sridhar, Ashwini B. Setlur, Megha Rani, Pooja R. and Eepa (2014). *International Journal of Biomedical and Clinical Engineering* (pp. 52-62).

[www.irma-international.org/article/clinical-engineering-in-india/115885](http://www.irma-international.org/article/clinical-engineering-in-india/115885)

### Drowsiness Detection by the Systems Dynamic Approach of Oculomotor Systems

Dabbu Suman, Malini Mudigonda, B. Ram Reddy and Yashwanth Vyza (2022). *International Journal of Biomedical and Clinical Engineering* (pp. 1-27).

[www.irma-international.org/article/drowsiness-detection-by-the-systems-dynamic-approach-of-oculomotor-systems/295866](http://www.irma-international.org/article/drowsiness-detection-by-the-systems-dynamic-approach-of-oculomotor-systems/295866)

### Applying Strategies to Overcome User Resistance in a Group of Clinical Managers to a Business Software Application: A Case Study

Barbara Adams, Eta S. Berner and Joni Rouse Wyatt (2009). *Medical Informatics: Concepts, Methodologies, Tools, and Applications* (pp. 1871-1880).

[www.irma-international.org/chapter/applying-strategies-overcome-user-resistance/26342](http://www.irma-international.org/chapter/applying-strategies-overcome-user-resistance/26342)

### Human Characteristics of Sound Localization under Masking for the Early Detection of Dementia

Kouji Nagashima, Jinglong Wu and Satoshi Takahashi (2011). *Early Detection and Rehabilitation Technologies for Dementia: Neuroscience and Biomedical Applications* (pp. 65-71).

[www.irma-international.org/chapter/human-characteristics-sound-localization-under/53422](http://www.irma-international.org/chapter/human-characteristics-sound-localization-under/53422)

### Proposed Solution to the Problem of Thermal Stress Induced Failures in Medical Electronic Systems

V. Lakshminarayanan and N. Sriraam (2014). *International Journal of Biomedical and Clinical Engineering* (pp. 33-41).

[www.irma-international.org/article/proposed-solution-to-the-problem-of-thermal-stress-induced-failures-in-medical-electronic-systems/127397](http://www.irma-international.org/article/proposed-solution-to-the-problem-of-thermal-stress-induced-failures-in-medical-electronic-systems/127397)