

Chapter 15

Why Doesn't Information Systems Vision Exist in the Healthcare Sector?

Matthew W. Guah
Clafin University, USA

ABSTRACT

The nature of healthcare provision has changed dramatically and irreversibly over the past two decades. The focus has shifted from inward-looking supervision of medical care with substantial protection and defensive attitude to globally oriented, patient-centric facilitation of medical care and preventive services. Information technologies are increasingly playing a key role in reforming healthcare globally. How much of this reform addresses the primary goal of healthcare institutions? This chapter questions current expectations that information technology could bring benefits to healthcare sector—for which governments around the world are mandating and increasing investment in IT initiatives. There has been a remarkable expansion of information technology capabilities resulting in many ambitious IT projects in various healthcare institutions. The most sophisticated ones seem to concentrate on relatively simple coordination, resource allocation and documentation aspects of healthcare delivery process. There is little emphasis on the management of treatment process or optimization of resource use because definitive models do not exist for patient treatment processes.

The major question being presented for open discussion here is whether these IT projects coincide with the primary goals of healthcare organizations. Is there an overall vision for IT in healthcare? If so, what is it? How does such vision contribute to the primary objectives of healthcare? Finding answers to these questions increases our understanding of current IT initiatives and considers the implications of the organizing vision for further development and diffusion of healthcare IS.

DOI: 10.4018/978-1-60960-174-4.ch015

INTRODUCTION

A typical hospital—in USA, UK and most Western countries—is available at all hours of the day providing medical attention to a wide variety of patients. Every treatment must be tailored and provided within reasonable time. Combined with substantial increases in the number of people visiting hospitals today, hospital environments have been observed with patients being forgotten in hallways, some have been turned away, medical records have been misplaced and waiting times have been unacceptably excessive. Massive investment in healthcare IT promises to improve the health and political impact of several instigated efforts to ensure patient waiting and treatment times are minimized. Policy makers and healthcare leaders are increasingly looking to IT to play an important role in addressing these issues (Guah & Currie, 2007). How much of the current healthcare reform initiatives typically incorporate industrial engineering principles? Although there have been some degree of success, huge gaps still exist in our understanding of healthcare delivery process. With current overviews of patient flows the facilitation of decision support activities with IT remains elusive. Yet high expectations for the “solution” that IT might bring to healthcare, government mandates and funding for IT initiatives and dramatic expansion of IT capabilities are stimulating ambitious IT projects in various healthcare institutions (Guah, 20011). Could such expectations be reconciled with limited “hard evidence” of true economic value of healthcare IS and substantial barriers to successful adoption and diffusion?

With heightened interest and investment in healthcare reform, a number of huge IT projects have sprung up in the last two decades aimed at improving healthcare delivery quality, reducing cost and better access to patient data. Spending on healthcare accounts for a substantial and growing portion of the gross domestic product (GDP) in many countries. (e.g., 14.1% of American GDP;

average of 8% for 30 countries in the Organization for Economic Cooperation and Development). While the level of financial investment for these systems is very impressive (Baig & Gururajan, 2011; Guah & Currie, 2007) they focus on relatively simple coordination, resource allocation and documentation aspects of hospital operations (Wickramasinghe, 2010; Mark, 2007). *IT initiative* is used here to characterize these projects (Guah, 2007). The focus in this paper is to understand the true vision of these IT initiatives and how they could be organized around different healthcare goals.

An organizing vision incorporates not only IT projects, but also assumptions about organizing healthcare practices and institutions to take advantage of IT capabilities. Does the organizing vision for IT initiative incorporate ideas about coordinated clinical care, reduced medical errors, and improved compliance to clinical standards and guidelines? Despite uncertainties about IT costs, benefits and implications, organizing visions for IT in healthcare can stimulate interest and investment in IT. While the healthcare industry has started to gain experience with unrestrained IT projects, some stakeholders are beginning to raise concerns about the costs and institutional barriers that hinder successful implementations (Baig & Gururajan, 2011; Currie & Guah, 2007). In contrast to general IT industry innovation processes, government and charity foundations collaboratively play complex and vital roles in the shaping of organizing visions for IT use in the healthcare sector. This has resulted to questions around the unilateral expectation that IT initiatives in healthcare will improve the quality of healthcare delivery. Conflicting goals and priorities among various healthcare actors are also becoming more evident. Beliefs about how IT initiatives in healthcare could improve healthcare delivery quality, reduce cost and improve access to patient data in the face of substantial economic, social and institutional barriers are also being debated as part of IT vision in healthcare (Abrahan et al, 2010).

9 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/doesn-information-systems-vision-exist/52446

Related Content

Optimized Deep Neuro Fuzzy Network for Cyber Forensic Investigation in Big Data-Based IoT Infrastructures

Suman Thapaliya and Pawan Kumar Sharma (2023). *International Journal of Information Security and Privacy* (pp. 1-22).

www.irma-international.org/article/optimized-deep-neuro-fuzzy-network-for-cyber-forensic-investigation-in-big-data-based-iot-infrastructures/315819

Intrusion Detection Systems for Mitigating SQL Injection Attacks: Review and State-of-Practice

Rui Filipe Silva, Raul Barbosa and Jorge Bernardino (2020). *International Journal of Information Security and Privacy* (pp. 20-40).

www.irma-international.org/article/intrusion-detection-systems-for-mitigating-sql-injection-attacks/247425

Balanced Approach for Hiding Sensitive Association Rules in Data Sharing Environment

Janakiramaiah Bonam and Ramamohan Reddy (2014). *International Journal of Information Security and Privacy* (pp. 39-62).

www.irma-international.org/article/balanced-approach-for-hiding-sensitive-association-rules-in-data-sharing-environment/136365

Blockchain for Industrial Internet of Things (IIoT)

Rinki Sharma (2023). *Research Anthology on Convergence of Blockchain, Internet of Things, and Security* (pp. 472-487).

www.irma-international.org/chapter/blockchain-for-industrial-internet-of-things-iiot/310464

Protection of Personal Health Data During the SARS_COV19 Pandemic in Tunisia

Imene Elloumi Zitouna (2022). *Cybersecurity Crisis Management and Lessons Learned From the COVID-19 Pandemic* (pp. 97-108).

www.irma-international.org/chapter/protection-of-personal-health-data-during-the-sarscov19-pandemic-in-tunisia/302224