Chapter 1.7
IT Adoption and Evaluation in Healthcare:
Evolutions and Insights in Theory, Methodology, and Practice

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ABSTRACT

This article focuses on the evolution of theory, methodology, and practice regarding the role of adoption, implementation, diffusion, and evaluation factors, and the interaction of these factors at various levels, to healthcare system success. These topics continue to present challenges to organizations, the research community, and to society in general. The first place that new waves of thought are often aired is at conferences. This article explores the evolution taking place in this domain by looking back through the years over work presented at the longest standing conference track focused on adoption, implementation, diffusion, and evaluation factors in e-health and the interaction of these factors at various levels to healthcare system success. [Article copies are available for purchase from InfoSci-on-Demand.com]

INTRODUCTION

Although Information Technology (IT) is seen as an enabler of change for healthcare organizations both nationally and locally, adoption decisions are complex given a multitude of technologies, stakeholders, and potential levels of analysis. The research presented in this article conveys the complexity and breadth of issues explored by information systems researchers in addressing adoption, implementation, diffusion, and evaluation via a multidimensional review of articles accepted over the past six years at arguably the most noted minitrack conference focused on IT adoption, implementation, diffusion, and evaluation in healthcare information systems. This review shows that there are many disruptions in the innovations of healthcare information systems. Continuous learning, evaluation, and understanding in both practice and research can help to avoid these disruptions and help to smooth IT implementation in the future.

The following sections move back in time to grasp the evolution of e-health adoption and evaluation. We begin by introducing that background and the methods used to conduct this literature review. We then present an analysis of trends, and insight from this body of past work by exploring evolution in theory, methodology, and practice. We close by addressing the future of e-health diffusion and some major lines of thinking.

BACKGROUND AND LITERATURE REVIEW METHOD

The entry for "**academic conference**" on Wikipedia© notes, "together with academic or scientific journals, conferences provide an important channel for exchange of information between researchers." For purposes of reviewing the evolution and developments in a new and emerging area of interest, such as e-health as explored by IT researchers, it is important to consider conference papers and their associated presentations. While we acknowledge the value and necessity of reviewing work published in refereed journals to understand the school of thought in a domain or sub-specialty, we focus this work on conference papers to emphasize three issues. First, conferences often serve as the first airings of studies and ideas that later make their way into journals. Given the extended turnaround times between first submission and publication in some journals, fresh directions in research may not make their way into press until years after having been presented at a conference. Thus, in work such as the current study, that seeks to look at the evolution of thought, method, and practice, tracing representation in conference proceedings may more closely follow the timeline of the completed studies and present a broader picture. Second, in an interdisciplinary field such as health information systems, the ultimate journal destination of work presented at conferences may scatter and fragment into various journal domains making it difficult to reconnect the threads of thought, method, and practice in the work going on in the domain. Thus, we hope to encourage researchers doing work in this domain to follow our example and visit the work from targeted conferences in their canvas of the literature, even if only to trace the destination of subsequent journal articles that might otherwise be missed in a multi-disciplinary field. Third, topically targeted conferences and tracks/minitracks at general conferences tend to attract "birds of a feather" and thus, promote multi-way dialog on presented research. This dialog may, in turn, influence the direction of colleagues working in the area of interest.

We focus our study on the Hawaii International Conference on System Sciences (HICSS) - IT Adoption, Implementation, Use and Evaluation in Healthcare minitrack within the Information Technology in Health Care (ITHC) track. HICSS is the oldest international system science conference, and the Health Care track is the oldest of

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