Chapter 16

Insight into Healthcare Information Technology
Adoption and Evaluation:
A Longitudinal Approach

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ABSTRACT

This chapter is a longitudinal review of Health Information Technology (HIT) research. The adoption, implementation, and use of HIT 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 chapter explores the evolution taking place in this domain by looking back through the years over work presented at the longest standing international conference track focused on adoption, implementation, diffusion, and evaluation of health Information Technology.

INTRODUCTION

Health Information Technology (HIT) is predicted as an enabler of change for healthcare organizations worldwide; yet adoption, implementation and decisions about use remain complex due to a multitude of technologies, stakeholders, and potential levels of analysis. The research presented in this paper conveys the complexity and breadth of issues explored by information systems researchers in addressing adoption, implementation, diffusion, and evaluation via a multidimensional review of papers accepted over the past eight years at arguably the most noted minitrack conference.
focused on IT adoption, implementation, diffusion, and evaluation in healthcare information systems.

The following sections move back in time to grasp the evolution of HIT adoption, implementation, 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 HIT research.

**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 HIT, 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 the present work on conference papers to emphasize three issues. First, conferences often serve as the first airings of studies and streams of inquiry 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 timelier 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, 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 the information system conference healthcare tracks. The IT Adoption, Implementation, Use and Evaluation in Healthcare minitrack has been, and remains, one of the focal tracks in the ITHC. Per online search and review of the agendas and programs from major IT general conferences and targeted meetings since 2000, the IT Adoption, Implementation, Use and Evaluation minitrack appears to be the longest running consistent track dedicated to this focused topic in the field of information systems. This minitrack started in 2002 and has been on-going to date. The average acceptance rate for papers in this track is approximately 50%. One or more of this paper’s authors participated in the presentations and ensuing discussions of all the papers reviewed as part of the current study. Thus, the authors of this paper have not only individually or collectively read each paper, but have dialoged with authors and seen the various reactions and spontaneous thought generated by these works. Therefore, this review is a reflection and interpretation of not only what was written, but also of what was said and
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