

Chapter 11

The Role of Case-Based Research in Information Technology and Systems

Roger Blake

University of Massachusetts Boston, USA

Steven Gordon

Babson College, USA

G. Shankaranarayanan

Babson College, USA

ABSTRACT

Increasingly, academic research in Information Technologies and Systems (ITS) is emphasizing the application of research models and theories to practice. In this chapter, the authors posit that case-based research has a significant role to play in the future of research in ITS because of its ability to generate knowledge from practice and to study a problem in context. Understanding context—social, organizational, political, and cultural—is mandatory to learning and effectively adopting best practices. The authors describe some examples of case-based research to highlight this point of view. They further identify key topics and themes based on examining the abstracts from prominent case-based research over the past decade, analyzing their trends, and hypothesizing what the role of case-based research will be in the coming decades.

INTRODUCTION

More than ever before, academic research in Information Technology and Systems (ITS) is emphasizing the importance of its application to real-world problems. Even the best theoretical

model fails to make an adequate contribution if its applicability cannot be demonstrated in real-world settings. To understand why, we opine that academicians (particularly in ITS) are increasingly relying on interactions with organizations to identify “interesting” problems that offer

DOI: 10.4018/978-1-4666-2491-7.ch011

opportunities for academic research. Moreover, research solutions are being shared with organizations, especially those that researchers interact with. These organizations are looking to apply the research solutions to improve business processes, business strategies, and organizational performance. If research solutions are inapplicable, the contribution of the academic research appears marginalized. We believe that it is important to have a synergistic and symbiotic relationship with organizations, the entities that truly reflect the impact of research. We believe that case-based research has the potential to create and maintain such relationships.

One objective of this chapter is to highlight the importance of case-based studies for the future of ITS research. We posit that future research in ITS must offer more for practice. Benbasat, Goldstein, and Mead (1987) stated that case-based research is particularly well suited to capture the knowledge of practitioners and to develop theories from it. In the past, ITS researchers have learned from organizations. Organizations have innovated with technology and academics have learned how this is done and then extended research by proposing why this was done. In this process, academics have come up with prescriptive suggestions that have, in turn, helped organizations discern how to gain competitive advantage with ITS. Today and in the foreseeable future, in the face of global competition, organizations are and will be forced create and implement innovative ITS solutions. Success stories in Brazil, Russia, India, and China may have to be studied and duplicated in Europe, America, and other parts of the western world and vice versa. To achieve success, practical knowledge is important to understand. In this global economy, understanding practicality implies understanding specific differences and similarities across the globe in terms of culture, organizational structure and size, business practices, and societal influences.

We posit that case-based research offers the ability to provide this understanding. With its ability to study current phenomena in context, case-based research can highlight “why” a particular action or a set of actions were deemed appropriate, “how” these actions were executed, “why” this execution was successful (or not), and “how” culture, business practices, and societal factors contributed to the success (or failure) of the effort. This understanding allows us to transfer the knowledge to other situations while accounting for differences in culture, business practices, and societal influences. More importantly, it also offers the ability to inform decision-makers of the implications of these factors for practice.

Our specific objectives in this chapter are: (1) highlight the importance and benefits of case-based research and differentiate it from other traditional research methods that often substitute case-based research. (2) Present key examples of contributions offered by case-based research to show that such contributions are difficult to obtain from traditional research methods. (3) Examine the “identity” of case-based research by identifying the key themes and the core topics within each. (4) Reveal the trends in terms of how topics have evolved over time, based on the topics identified. This will help us understand the topics that are gaining importance and will offer directions for future research in case-based research.

The remainder of the chapter is organized as follows. The next section presents an overview of case-based research, describing the methodology and emphasizing the key differences between case-based research and related research methods. We then describe the importance of case-based research and the benefits that case-based research offers, along with an accompanying section describing some typical objectives and contributions of case-based research with illustrative examples. Next is a section that describes the methodology, Latent Semantic Analysis (LSA), we use in our analyses to identify themes and core topics.

19 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/role-case-based-research-information/70717

Related Content

Integrating User Stories in the Design of Augmented Reality Application

Carlos Ankora and Aju D. (2022). *International Journal of Information Technologies and Systems Approach* (pp. 1-19).

www.irma-international.org/article/integrating-user-stories-in-the-design-of-augmented-reality-application/304809

An Initial Examination into the Associative Nature of Systems Concepts

Charles E. Thomas and Kent A. Walstrom (2016). *International Journal of Information Technologies and Systems Approach* (pp. 57-67).

www.irma-international.org/article/an-initial-examination-into-the-associative-nature-of-systems-concepts/152885

Real-Time Communication Support in IEEE 802.11-Based Wireless Mesh Networks

Carlos M. D. Viegas, Francisco Vasques and Paulo Portugal (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 7247-7259).

www.irma-international.org/chapter/real-time-communication-support-in-ieee-80211-based-wireless-mesh-networks/112422

Towards a Minimal Realisable System Dynamics Project Model

A. S. White (2012). *International Journal of Information Technologies and Systems Approach* (pp. 57-73).

www.irma-international.org/article/towards-minimal-realizable-system-dynamics/62028

Palmpoint Recognition System Based on Multi-Block Local Line Directional Pattern and Feature Selection

Cherif Taouche, Hacene Belhadef and Zakaria Laboudi (2022). *International Journal of Information Technologies and Systems Approach* (pp. 1-26).

www.irma-international.org/article/palmpoint-recognition-system-based-on-multi-block-local-line-directional-pattern-and-feature-selection/292042