

Journal of the Association for Information Systems

JAIS 

Introduction to the Special Issue on "Quo Vadis TAM – Issues and Reflections on Technology Acceptance Research".

Rudy Hirschheim
Louisiana State University
rudy@lsu.edu

Abstract:

Volume 8, Issue 4, Article 1, pp. 203–205, April 2007

IS Research Perspectives aims to introduce and provoke discussion about critical issues in the IS field, from an academic perspective. The articles published in this section are expected to create excitement about how the IS field needs to change (or maintain its status quo) in order to thrive as an intellectual enterprise. As such, we welcome innovative and provocative contributions taking a specific conceptual, theoretical, methodological, or thematic viewpoint of a particular area of interest to the field. This Special Issue, entitled: “*Quo Vadis TAM - Issues and Reflections on Technology Acceptance Research*,” is a critical appraisal of Technology Acceptance Model research and its directions. Such an exploration is long overdue given its central place in the past intellectual discourse within the IS field.

How individuals adopt and use information systems has been an enduring question in the IS field. Organizations spend millions of dollars on new information systems in the hope that these systems will allow them to successfully compete in today's and tomorrow's marketplace, or in the case of government agencies-to better respond to the needs of citizens. Information systems are implemented so as to help managers make better decisions, better understand the nature of customers, discover new market opportunities, improve the productivity of the employees, and so forth. But such advantages can only accrue if the systems are actually adopted and used. And that has been the rub since the beginning of the field. How do we get individuals to adopt and use the systems that are implemented? The field has painfully discovered that simply rolling out a new system – no matter how good technically – does not inherently translate into individuals using the system. Through the last two decades, many theories and approaches have been developed to understand why this is the case, and concomitantly, how to get individuals to successfully adopt a new system. The broad domain of IT adoption and diffusion research emerged to meet this challenge. Indeed, many consider this to be one of the most widely researched domains of the IS field, and consequently, a significant body of literature exists embodying many alternative theories. Perhaps the most well-known of these theories is the Technology Acceptance Model (TAM). It is based on a view that perceived usefulness correlates strongly with user acceptance, i.e., intention to use the system; and such user acceptance is a strong predictor of actual use. As Lucas *et al.* (in this issue) state: “TAM has in fact come to occupy a central position in research focused on individual adoption of IT innovations.”

We believed it was time to take a critical look at TAM and its variants and extensions, as a significant body of research and intellectual effort has been expended into refining and expanding TAM over the last two decades. Thus, we have produced this Special Issue to help the field better appreciate what our current knowledge of IS/IT acceptance and use is-especially as it relates to TAM. We invited a number of prominent scholars who have published extensively on the topic to offer their views on the current state of the technology adoption research, especially what they think the underlying problems are with the current research, and where our focus should be placed in the future. In addition, these views come from scholars both within and outside the IS field. We have been able to compose a truly distinguished group of academics, who have agreed to offer their critiques on the state of research on technology acceptance.

The Special Issue begins with the paper by Hank Lucas, Burt Swanson, and Bob Zmud. Their commentary, entitled “Implementation, Innovation, and Related Themes over the Years in Information Systems Research,” looks back at the authors' own research on IT implementation, innovation, and associated themes. Their research combined would clearly be considered amongst the seminal work on the topic of adoption and diffusion. In their paper, the authors offer retrospective comments on how their work shaped our understanding of IT adoption, acceptance, and use. They also offer their thoughts on the likely future research directions.

The second paper, entitled “Quo Vadis TAM,” written by Izak Benbasat and Henri Barki, takes a distinctly critical stance on TAM. The authors believe that the field's focus on TAM-based explanations has either directly or indirectly diverted researchers' attention away from many other more important research issues associated with IT adoption, and this has led to a state of theoretical chaos and confusion. They are also concerned that the one-sided focus on TAM has created an illusion of progress in knowledge about adoption and acceptance, which has been to the detriment of the field. The authors conclude their paper by offering several suggestions to alleviate the problems associated with TAM. They hope that following these suggestions will ultimately lead to a richer and more robust understanding of IT adoption.

The third paper is a commentary on the Benbasat and Barki (B&B) paper by Dale Goodhue. He points out what he feels are appropriate criticisms of TAM noted by B&B, but he also rushes to the defense of Fred Davis et al. by noting the value of

TAM to the field. Goodhue is quick to point out that while TAM may not be perfect one should not, in the proverbial sense, rush to throw out the baby with the bathwater. He feels TAM-related research has done much to improve our collective understanding of technology acceptance and use. But, he too feels that much more work needs to be done to relate firm and individual performance with technology acceptance and use.

The fourth paper written by Detmar Straub and Andrew Burton-Jones, entitled “Veni, Vedi, Vici: Breaking the TAM Logjam,” is also a commentary on the Benbasat and Barki paper, although with a significant extension. While the authors agree with many of the criticisms of TAM raised by B&B, such as the stifling of other IS research topics (TAM publications have been estimated to take up about 10% of our precious journal space) the authors take exception with one element of B&B’s critique. Namely, they question the contention that TAM is unassailable. Straub and Burton-Jones suggest that there are a number of issues associated with TAM that are left to be resolved. They explore two in some detail: *viz.*, the issue of common methods variance, and the issue of parsimony.

The fifth paper, written by Andrew Schwarz and Wynne Chin, is entitled: “Looking Forward: Toward an Understanding of the Nature and Definition of IT Acceptance.” This piece is less a critique of specific problems with TAM, and more an attempt to change our thinking of what constitutes our idea of ‘acceptance’. In their commentary, the authors eschew the need for more studies focusing on narrow aspects of usage. Instead, they encourage broadening the field’s understanding of IT acceptance toward a wider constellation of behavioral responses and their psychological counterparts. They suggest looking at other aspects of usage behaviors or post hoc usage evaluations such as infusion, routinization, substantive use, exploitive usage, or faithfulness of appropriation. These, they argue, are as important to study but would likely involve other psychological constructs of acceptance. Such constructs might also be connected to alternative modes of IT use.

The sixth paper, written by Rick Bagozzi is entitled: “The Legacy of the Technology Acceptance Model and a Proposal for a Paradigm Shift,” and it is different in two major ways. First, Rick Bagozzi—unlike the other authors in this special issue—is not an IS academic, although he has co-authored some papers on TAM in the past. He comes from the field of marketing, and his perspective is therefore more of an outsider. He approaches the topic as an expert in theories of individual consumer behavior and acceptance explanations. In this regard, his perspective is refreshing and novel. Second, beyond critiquing TAM, Bagozzi offers his own new model as a foundation for a theory shift in understanding technology acceptance and use. His new model consists of a decision making core (goal desire → goal intention → action desire → action intention) that is grounded in what he contends are universal decision making variables/processes. To the decision making core he adds a number of causes and effects of decisions and self-regulatory reasoning, with the aim of introducing potential contingent, contextual nuances for understanding decision making around acceptance.

The seventh paper, written by Leiser Silva and entitled: “Post-positivist Review of Technology Acceptance Model” adopts a different lens by which to examine TAM. It is the lens of the philosophy of science. Silva notes that the main objective of his reflection is not to provide a conclusive evaluation of the value of TAM as a *research program* or a *paradigm* but rather to open a debate about the philosophical foundations of TAM. To this end, he draws upon Popper’s *principle of demarcation*, which determines whether a theory is falsifiable. Next, he applies Kuhn’s *theory of scientific revolutions* to determine the degree to which TAM has become normal science. Finally, he uses Lakatos’ *idea of scientific research programs* as a way of examining the scientific progress of TAM and whether it is successful or growing.

Of course no Special Issue on TAM would be complete without a commentary by Fred Davis and his colleagues. Thus, the last paper is entitled: “Dead or Alive? The Development, Trajectory and Future of Technology Adoption Research,” and it is co-authored by Viswanath Venkatesh, Fred Davis, and Mike Morris. In their paper, the authors compare the progress of technology adoption research with two research streams in psychology and organizational behavior: theory of planned behavior and job satisfaction. Their analysis suggests that there has been significant and valuable progress in technology adoption research in the IS field. But in the future, they believe the focus should be on interventions, contingencies, and alternative theoretical perspectives (to the largely social psychology-based technology adoption research, which dominate today’s research).

We hope you enjoy this exceptional collection of theoretical essays offered by the leading scholars on technology acceptance and use. We also hope that it will ignite interest in having additional special issues on other key topics in the IS field including IT and competitive advantage, IT and productivity, or IT and the structuring of organizations, to name just a few. JAIS is happy to open its pages to such ambitious intellectual endeavors.



Editor

Kalle Lyytinen
Case Western Reserve University, USA

Senior Editors			
Izak Benbasat	University of British Columbia, Canada	Robert Fichman	Boston College, USA
Varun Grover	Clemson University, USA	Rudy Hirschheim	Louisiana State University, USA
Juhani Iivari	University of Oulu, Finland	Elena Karahanna	University of Georgia, USA
Robert Kauffman	University of Minnesota, USA	Frank Land	London School of Economics, UK
Bernard C.Y. Tan	National University of Singapore, Singapore	Yair Wand	University of British Columbia, Canada
Editorial Board			
Ritu Agarwal	University of Maryland, USA	Steve Alter	University of San Francisco, USA
Michael Barrett	University of Cambridge, UK	Cynthia Beath	University of Texas at Austin, USA
Anandhi S. Bharadwaj	Emory University, USA	Francois Bodart	University of Namur, Belgium
Marie-Claude Boudreau	University of Georgia, USA	Tung Bui	University of Hawaii, USA
Yolande E. Chan	Queen's University, Canada	Dave Chatterjee	University of Georgia, USA
Roger H. L. Chiang	University of Cincinnati, USA	Wynne Chin	University of Houston, USA
Ellen Christiaanse	University of Amsterdam, Nederland	Guy G. Gable	Queensland University of Technology, Australia
Dennis Galletta	University of Pittsburg, USA	Hitotora Higashikuni	Tokyo University of Science, Japan
Matthew R. Jones	University of Cambridge, UK	Bill Kettinger	University of South Carolina, USA
Rajiv Kohli	College of William and Mary, USA	Chidambaram Laku	University of Oklahoma, USA
Ho Geun Lee	Yonsei University, Korea	Jae-Nam Lee	Korea University
Kai H. Lim	City University of Hong Kong, Hong Kong	Mats Lundeberg	Stockholm School of Economics, Sweden
Ann Majchrzak	University of Southern California, USA	Ji-Ye Mao	Remnin University, China
Anne Massey	Indiana University, USA	Emmanuel Monod	Dauphine University, France
Eric Monteiro	Norwegian University of Science and Technology, Norway	Jonathan Palmer	College of William and Mary, USA
B. Jeffrey Parsons	Memorial University of Newfoundland, Canada	Paul Palou	University of California, Riverside, USA
Yves Pigneur	HEC, Lausanne, Switzerland	Nava Pliskin	Ben-Gurion University of the Negev, Israel
Jan Pries-Heje	Copenhagen Business School, Denmark	Dewan Rajiv	University of Rochester, USA
Sudha Ram	University of Arizona, USA	Balasubramaniam Ramesh	Georgia State University, USA
Suzanne Rivard	Ecole des Hautes Etudes Commerciales, Canada	Timo Saarinen	Helsinki School of Economics, Finland
Rajiv Sabherwal	University of Missouri, St. Louis, USA	Olivia Sheng	University of Utah, USA
Ananth Srinivasan	University of Auckland, New Zealand	Katherine Stewart	University of Maryland, USA
Kar Yan Tam	University of Science and Technology, Hong Kong	Dov Te'eni	Tel Aviv University, Israel
Viswanath Venkatesh	University of Arkansas, USA	Richard T. Watson	University of Georgia, USA
Bruce Weber	London Business School, UK	Richard Welke	Georgia State University, USA
Youngjin Yoo	Temple University, USA	Kevin Zhu	University of California at Irvine, USA
Administrator			
Eph McLean	AIS, Executive Director		Georgia State University, USA
J. Peter Tinsley	Deputy Executive Director		Association for Information Systems, USA
Reagan Ramsower	Publisher		Baylor University