Preface

Theory is generally considered to be the bedrock of academic research, the foundation upon which scientific enquiry is organized and built. Yet, for many of us, theory is a ‘black box’, something that we know must be present in research, but for which very little guidance is provided. Indeed, when research papers are rejected by journals, or challenged at conferences, it is more often than not due to problems with theory (or a lack of theory). We have seen many examples of this in our own careers as journal and conference editors. While there are well established norms and guidelines to remedy problems with statistical methods and research design, issues with theory are much less obvious to diagnose and resolve. Thus, the objective of this Handbook is to address the following question – How can the use of theory be improved in IS research?

To answer such a question, it is important to examine the diversity of the various theories and models used in IS research. In particular, IS research draws heavily upon theories developed in a variety of complementary disciplines, such as Computer Science, Psychology, Sociology, Management, Economics, and Mathematics. IS research has developed or appropriated theories to examine central disciplinary themes such as IS development, adoption, implementation, training, and application, as well as strategic, social and political factors. The ISWorld wiki site1 ‘Theories Used in IS Research’ has listed more than fifty such theories and models. While this resource provides a very useful starting point to locate and learn about various theories, it does not provide the kind of depth that many researchers require when deciding whether or not to use a particular theory in their research. Links provided to articles that have used a theory can be helpful, but once again, these papers may not present a full account of the theory, or they may offer a slightly modified and fragmented version.

Indeed, finding information about theory can be difficult and intimidating for new researchers. We have seen multiple instances of submissions either lacking theory or using it inappropriately. Even if a researcher manages to identify an appropriate theory for undertaking research, he or she may struggle to determine an appropriate research design that complements the identified theory. Or worse, a researcher may begin with the research design and then try to retrofit a theory after the fact.

The above discussion suggests that despite its ubiquity throughout IS research, there is much that remains unknown about theory. In our view, many of the theories used in IS research are not particularly well understood by IS researchers. For instance, there are few frameworks that have been developed to organize the various theories employed in IS research, and there has been less than extensive work conducted to date on the categorization of the conceptual variables used in IS research. Furthermore, there is a general paucity of work that establishes theoretical ties between IS research and research in other disciplines. Consequently, the correct identification and application of theory becomes particularly challenging for all researchers, and particularly those who may be at the start of their academic careers. By rigorously studying and documenting the theories that have been developed and used within IS research, we believe that it is possible to advance the discipline.
The need for greater understanding of theory in IS research suggests that a literary and meta-analytic collection of IS-related theories and models not only provides a significant contribution to IS knowledge, but also provides a valuable aid to IS researchers. Therefore, the overall mission of the Handbook of Research on Contemporary Theoretical Models in Information Systems is to provide a comprehensive understanding and coverage of the various theories, models and related research approaches used within IS research. Specifically, it aims to focus on the following key objectives:

- To examine in detail a number of key theories and models applicable to studying IS/IT management issues;
- To provide a critical review/meta-analysis of IS/IT management articles that have used a particular theory/model;
- To link theories with appropriate research designs;
- To provide examples of real world applications of theories based on empirical analysis;
- To provide an understanding of traditional and contemporary methods for building and testing theory.

This Handbook contributes to a number of theories, models and research approaches. The theoretical contribution of this book is that it synthesizes the relevant literature in order to enhance knowledge of IS theories and models from various perspectives. Included in the Handbook is an extensive list of theories and models, including detailed descriptions of: actor-network theory, capability theory, commitment theory, coping theory, critical realism, cultural historical activity theory, diffusion of Innovations theory, domestication theory, evolutionary diffusion theory, dynamic capability theory, expectation-confirmation theory, grounded theory, Hofstede’s cultural consequences, institutional theory, language action perspective, media richness theory, personal construct theory, the resource-based view of the firm, social network theory, social capital theory, structuration theory, the technology acceptance model (TAM), the theory of deferred action, the theory of competing commitments, the theory of planned behavior (TPB), the theory of reasoned action (TRA), transaction cost theory, the value of flexibility, vocational theory, the work systems life cycle (WSLC) model, as well as structural equation modelling (SEM). These theories and approaches have multi-disciplinary origins, suggesting that this Handbook not only contributes to the body of knowledge within the IS discipline but also to its contributing disciplines.

The Handbook is organized into 31 chapters, co-authored by 63 contributors from 49 different institutions/organizations located in 13 countries (namely, Australia, Bangladesh, Brazil, Canada, Canada, Ireland, Italy, New Zealand, Norway, Portugal, South Korea, Sweden, the United Kingdom, and the United States of America). Such geographical and institutional variety indicates that the Handbook has drawn on a collection of wide and diverse perspectives. The 31 chapters have been organized into seven sections, namely: Theory Development and Extension (6 Chapters); Information System Development (4 Chapters); Innovation, Adoption and Diffusion (5 Chapters); Management Theories (5 Chapters); Marketing Theories (2 Chapters); Sociological and Cultural Theories (5 Chapters); and Psychological and Behavioral Theories (4 Chapters).

Considering the richness and depth of the content, we firmly believe that this Handbook will be an excellent resource for readers who wish to learn about the various theories and models applicable to IS research, as well as those interested in finding out when and how to apply these theories and models in order to investigate diverse research issues. The chapters included in the Handbook are also useful for readers who are interested in learning about how various research approaches and methods fit with different theories. The target audience for the Handbook includes researchers and practitioners within the management disciplines in general, and within the IS field in particular.
We sincerely hope that this Handbook will provide a positive contribution to the area of Information Systems. In order to make further research progress and improvement in the understanding of theories and models, we would like to welcome feedback and comments about this handbook from readers. Comments and constructive suggestions can be sent to the Editors care of IGI Global at the address provided at the beginning of the handbook.

Sincerely,

Yogesh K. Dwivedi, Swansea University, UK
Banita Lal, Nottingham Trent University, UK
Michael D. Williams, Swansea University, UK
Scott L. Schneberger, Principia College, USA
Michael Wade, York University, Canada

November 26th, 2008

ENDNOTE

1 http://www.fsc.yorku.ca/york/istheory/wiki/index.php/Main_Page