Chapter XXVIII
Personal Construct Theory

Peter Caputi
University of Wollongong, Australia

M. Gordon Hunter
University of Lethbridge, Canada

Felix B. Tan
Auckland University of Technology, New Zealand

ABSTRACT

The development of any discipline is related to the strength of its underpinning theoretical base. Well-established disciplines have a diversity of clearly stated and competing theoretical frameworks to describe and explain theoretical constructs. Information systems (IS) is a relatively new discipline; many well-known IS theories (such as the technology acceptance model, theory of reasoned action and theory of planned behaviour) are borrowed from disciplines such as economics and psychology. This chapter outlines personal construct psychology, a psychological theory. Current applications of methodologies based in personal construct theory are discussed, and the positioning of the theory within a broader taxonomy of IS theory is explored.

INTRODUCTION

It is interesting that despite the volume of research in computer-based information systems, there is no commonly agreed definition of what is an information system (IS) (Paul, 2007). However, a number of common elements emerge from these definitions. Computer-based IS are associated with information technologies, involving software and hardware components. These systems are then used by people. They use IS in particular ways and follow established rules of usage (what Paul [2007] would call formal processes), and quite often adapt or modify formal procedures in order to ensure

that tasks are completed (or informal processes [Paul, 2007]). In other words, when trying to understand what one means by IS, one needs to consider the interactivity of users, the technologies and the usage processes (Paul, 2007).

A good theory not only describes the phenomena of interest, it also explains why those phenomena occur. Explanation and prediction are, therefore, key defining features of a theory. It follows that (good) theories or models of computer-based IS should describe and explain relevant phenomena associated with the IS. Moreover, if the interactivity of user, technologies and process is a defining characteristic of an IS, then this interaction needs to be considered in any theory or model of IS. The user (the person), then, is a stakeholder in theories of IS. The role of 'user' and usage behaviour is important in IS theory.

Good theory should also have practical application. As Burr and Butt (1992) point out, "A good theory is a useful theory" (p.v). Good theory informs practice and in turn is informed by practice. This point is particularly relevant to the IS discipline. The development and application of IS theory should happen in tandem with, and not separately from IS practice (Mathias, Caputi & Vella, 2008).

A perusal of the prominent models of IS adoption and usage reveals the important role of psychological or behavioural variables. Concepts such as perceived playfulness (Moon & Kim, 2001; Chung & Tan, 2004) have been discussed in the IS literature. In addition, the motivation (both extrinsic and intrinsic) to use IS has also been examined in the literature (e.g., Davis, Bagozzi & Warshaw, 1992; Lee, Cheung & Chen, 2003). Behavioural intention models of usage such the Technology Acceptance Model (Davis, 1993) posits that an individual is more likely to express an intention to use technology if that technology is perceived to be useful and easy to use. Perceived usefulness and ease of use are individualised experiences; they reflect the views of an individual and how the individual will eventually behave.

Furthermore, theories such as the Theory of Planned Behaviour (Ajzen, 1991) attempt to account for social influence by including variables that capture social influences to comply or behave in a certain way. In other words, these theories are social- psychological in nature.

The influence of psychological concepts is evident in models of IS usage. A psychological theory that has received little attention in the IS domain is George Kelly's (1955/1991) Personal Construct Theory. Ironically, methods such as the repertory grid, an assessment tool developed by Kelly (1955/1991), have been used extensively in IS research (see Tan & Hunter, 2002), but independent from the theory. The objective of this chapter is to explore and articulate how Personal Construct Theory can be applied to Information Systems research. This objective will be addressed in the following sections of this chapter. The next section discusses Psychological theories that have been applied in information systems research. Then an overview is presented regarding Personal Construct Theory. The following section includes a review of methods employed with the purview of Personal Construct Theory. Then issues surrounding the use of Personal Construct Theory to conduct research into information systems are discussed. Finally, examples are presented about the use of Personal Construct Theory in practice.

"PSYCHOLOGICAL" THEORIES IN IS RESEARCH

The number of models and theories in the IS literature is voluminous. The "Theories in IS research Wiki" maintained at the University of York by Scott Schneberger and Mike Wade (http://www.fsc.yorku.ca/york/istheory/wiki/index.php/Main_Page) illustrates this point with well over 70 theories listed. In this section we limit our discussion to theories of IS adoption and usage. Table 1 presents a summary of some models and

Related Content

Deploying Privacy Improved RBAC in Web Information Systems
Ioannis Mavridis (2011). *International Journal of Information Technologies and Systems Approach (pp. 70-87).*
www.irma-international.org/article/deploying-privacy-improved-rbac-web/55804

An Adaptive Curvelet Based Semi-Fragile Watermarking Scheme for Effective and Intelligent Tampering Classification and Recovery of Digital Images
K R. Chetanand S Nirmala (2018). *International Journal of Rough Sets and Data Analysis (pp. 69-94).*
www.irma-international.org/article/an-adaptive-curvelet-based-semi-fragile-watermarking-scheme-for-effective-and-intelligent-tampering-classification-and-recovery-of-digital-images/197381

Application of Automatic Completion Algorithm of Power Professional Knowledge Graphs in View of Convolutional Neural Network
Guangqian Lu, Hui Liand Mei Zhang (2023). *International Journal of Information Technologies and Systems Approach (pp. 1-14).*
www.irma-international.org/article/application-of-automatic-completion-algorithm-of-power-professional-knowledge-graphs-in-view-of-convolutional-neural-network/323648

Social Capital Theory
Hossam Ali-Hassan (2009). *Handbook of Research on Contemporary Theoretical Models in Information Systems (pp. 420-433).*
www.irma-international.org/chapter/social-capital-theory/35844

Towards Knowledge Evolution in Software Engineering: An Epistemological Approach
Yves Wautelet, Christophe Schinckusand Manuel Kolp (2010). *International Journal of Information Technologies and Systems Approach (pp. 21-40).*
www.irma-international.org/article/towards-knowledge-evolution-software-engineering/38998