University of Technology, Sydney

Research Thesis

Understanding Learning within Information Technology Projects: an Examination of the Australian Experience

By

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CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that this thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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DEDICATION

This thesis is dedicated to:

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ABSTRACT

Information Technology (IT) is one of the great drivers of organizational change, and initiating projects to apply new technology and systems is the means by which such changes are implemented. Effective learning is an essential focus of the innovative and successful organization of today, and IT projects present a major opportunity to generate important new knowledge for individuals and organizations. The majority of the research and literature that is concerned with workplace learning focuses on a stable and long-term workforce. Projects, however, have a temporary existence and a transitory work team. My research is concerned with understanding the significance of learning within Australian IT projects, and discovering how new knowledge is generated and exploited for the benefit of the individuals and organizations involved. The research methodology selected was phenomenology, and a series of in-depth interviews was conducted with carefully selected participants from a wide and representative range of Australian IT projects. The epistemological assumptions that sustain this approach are that the requisite knowledge exists in tacit form in the minds of those who have experienced the phenomenon of learning in projects.

The collected data was subjected to deep hermeneutic interpretation and this enabled the development of a rich understanding of the many different facets of the project learning phenomenon. At the individual level the intensity of the learning experience was found to be influenced by the participant's existing frames of reference and the level of motivation and confidence to transform them when appropriate. Projects involving a high level of tension, with opportunities for experimentation, presented particularly powerful learning experiences. The research also highlighted evidence of absorptive capacity, where more experienced practitioners were able to learn new skills faster and with less stress than those less practiced. At the team learning level, there were some examples where teams had bonded into effective learning units, but generally power sharing was limited, and decision-making largely centralised. At the organizational level, the transfer of new project knowledge was erratic: efficient methods for receiving and making use of such knowledge were largely absent. In some instances there was evidence of organizational absorptive capacity: where projects were reprises of previous failed ventures there was sufficient retained corporate memory to ensure success at a subsequent attempt.