NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

I S   S E M I N A R

Title: **Learning Effects of Domain and Technology Knowledge in Information Systems Development: An Empirical Study**

Speaker: Jungpil Hahn, Associate Professor, Department of Information Systems, NUS School of Computing

Date/Time: 30 September 2016, Friday, 10:30 AM to 12:00 PM

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Chaired by: Dr Faik, Isam, Assistant Professor, School of Computing (faik@comp.nus.edu.sg)

ABSTRACT:

This study examines learning effects (i.e., the effects of prior experience) in information systems development (ISD). ISD is characterized by disparate tasks, teams, customers, and levels of project complexity across projects. These features challenge the understanding of how learning effects occur in the ISD context. Drawing upon the theory of transfer of learning, this study examines how ISD project teams learn and under what conditions they learn better or worse. We find that ISD project teams' experience in prior projects is transferred to performance gains in the current ISD project when the prior and current projects share the same domain or technology knowledge elements, domain and technology being the most essential knowledge types for ISD. Moreover, we find that these learning effects become stronger or weaker depending on the extent to which ISD project teams are familiar with the customers and the extent to which ISD projects are complex in its task and team. The study makes contributions to the ISD literature on learning effects, the roles of domain and technology knowledge, customer experience, and ISD project complexity, as well as to the general organizational learning literature. It also provides important managerial insights into practical human resource concerns such as project staffing and knowledge acquisition for ISD organizations.

BIODATA:

Jungpil Hahn is Associate Professor of Information Systems at the School of Computing at the National University of Singapore. Prior to joining NUS, he was an Assistant Professor of Management at the Krannert School of Management at Purdue University and a Visiting Assistant Professor of Information Systems at the Tepper School of Business at Carnegie Mellon University. He has a Bachelor's and Master's degree in Business Administration from Yonsei University in Seoul Korea and he earned his Ph.D. in Information and Decision Sciences from the Carlson School of Management at The University of Minnesota.

Dr. Hahn's research focuses on open innovation, organizational learning and knowledge management, software development processes, and software project management. His research has been published in major information systems, management and computer science journals such as Management Science, Organization Science, Information Systems Research, Journal of Management Information Systems, Decision Support Systems, ACM Transactions on Human-Computer Interaction, among others and presented at major conferences and workshops including the International Conference on Information Systems (ICIS), the Academy of Management conference (AOM), the ACM Conference on Human Factors in Computing Systems (ACM CHI), the Workshop on Information Technologies and Systems (WITS), the Workshop on Information Systems and Economics (WISE) and the conference of the Productions and Operations Management Society (POMS). He serves as Associate Editor for Information Systems Research and is on the editorial board at Management and Organization Review.