

DO&IT Seminar Series

Speaker: Amrit Tiwana
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Iowa State University

Date: Friday, September 4, 2009

Time: 2-3:30 pm

Location: VMH 1335

Title: The Influence of Platform Architecture on Platform Abandonment

Abstract: With competition increasingly among rival software platforms, retaining third-party developers outside firm boundaries is increasingly important. Such “module” developers often provide critically-differentiating technical innovations and new ideas, thus are vital to a platform’s success. This study addresses the underexplored question of how and why platform architecture—both technical and organizational—influences platform abandonment by developers. We introduce the notion of systems integration costs—which comprise both cross-module integration and module-platform integration—as a key explanatory construct in our nomological network.

We develop three ideas, building on modular systems theory. First, a decrease in systems integration costs lowers platform abandonment intention. Second, different facets of software architecture modularity differentially impact systems integration costs. Third, these relationships are moderated by the platform governance structure shared between a module developer and the platform owner. Tests using data from developers of 342 modules for Mozilla’s Firefox browser platform support the proposed ideas. Our key contribution is theoretically explaining how the interplay of software architecture with platform governance influences platform abandonment.

Bio: Amrit Tiwana is an associate professor and holds the Union Pacific Professorship in Iowa State University’s College of Business. His research on systems development and IT governance has appeared in *Information Systems Research*, *Strategic Management Journal*, *Journal of Management Information Systems*, *Decision Sciences*, *California Management Review*, *ACM Transactions on Software Engineering & Methodologies*, *IEEE Transactions on Engineering Management*, and other journals. He currently serves as an associate editor at *Information Systems Research* and has served as a special associate editor at *MIS Quarterly*.

Organizations that have sponsored his research include Japan Electronics & IT Industry Association (JEITA), Strategic Software Research consortium (Japan), UPS, Lilly, Hitachi, Fujitsu, IBM, NEC, Mitsubishi, Toshiba, Mitsui Chemicals, Sumitomo Steel, Kansai Electric, and others.