Introduction to the Minitrack on Information Systems in Global Business

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An global business represents a complex network communication, coordination, and decision making. Information and telecommunication technology (IT) continues to play a crucial role in the organization and management of global businesses. In some cases these systems are enabling fundamental shifts in the structure of global markets. Recognizing the importance of the link between IT and structure, this minitrack brings together researchers from the areas of information systems and organizational design with an interest on international issues.

In addition to research papers, the minitrack contains a panel session involving executives from multinational firms, plus information systems and strategy professors. The papers in this minitrack cover a range of issues from cases studies of the use if IT in China to the development of models for analyzing business networks.

In studying global information systems, lessons can be learned from failures as well as successes. The paper by Ellen Christiaanse, John Been, and Tonja van Diepen describes the failure of global systems in the air cargo community. It draws on extensive fieldwork in the air cargo community in Europe. The paper provides interesting data on the IT-related dynamics in the industry and describes a set of determinants that might account for the failure of the systems.

The paper by Christopher Holland, Geoffrey Lockett, and Ian Blackman investigates changes in organizational and industrial structures that have evolved from the wide-spread use of global information systems in banking. Based on original case research in Europe and America, an array of banking structures are analyzed with respect to business network theory from the strategy and IT literature.

The paper by Marvin Manheim examines the strategic issues facing logistics service providers and the information technology options open to them. He concludes that "supply chain integration" and deploying EDI are, at best, short-term competitive advantages and will become competitive necessity. The paper identifies and discusses a number of emerging technologies and shows how they fit together into an integrated information architecture for a "truly-productive organization."

Global organizations are dynamic organizations that must continually adapt to a rapidly changing environment. Unfortunately, most information systems are developed under assumptions of a more static environment. The paper by Ray Paul proposes a new paradigm to planning information systems and architecture based on a biological metaphor of a living system. This paradigm rejects the "fixed point" concept underlying most systems development and views the systems as evolving with the organization.

A key to the management of global businesses is large networked business organizations. The paper by Nardo van der Rijst presents a methodology to be used in the development of information infrastructures to support business networks. The methodology is based on framework which distinguishes three modeling levels: the problem domain, human network, and information system. On the human network level, the methodology applies an existing theory from the area of network analysis, the roles-linkages model, to model the actors and links between those actors as the basis for the exact definition of the communication patterns in the business network.

Global integration and greater economic interaction implies a need for standards for technology and procedures. The paper by Roland Kaye and Stephen Little recognizes that such standards are the product of market processes which are historically and culturally based. Further, the standards must deal with the conflict between technical developers and user organizations. The paper investigates the dynamics of the processes which generate official and emergent standards.

The paper by Dorothy Dologite, Yu Chen, Meiqi Fang, and Robert Mockler looks at four state-owned companies in Beijing. It reports on the changing role of information technology, focusing on the evidence of IT influence on the strategic decision-making, the role of IT managers, and technology advancement in the companies. This study provides a rare picture on the use of IT in an emerging market economy and provides insight into the once hidden world of China business.