1990

PANEL 11 INFORMATION TECHNOLOGY AND TOMORROW'S ORGANIZATION: COORDINATION AND CONTROL IN DEVOLVING ORGANIZATIONS

Robert W. Blanning
Vanderbilt University, USA

PANEL 11

INFORMATION TECHNOLOGY AND TOMORROW'S ORGANIZATION: COORDINATION AND CONTROL IN DEVOLVING ORGANIZATIONS

Panel Chair: **Robert W. Blanning**, Vanderbilt University, USA

Panelists: **Richard M. Burton**, Duke University, USA
Børge Obel, Odense University, Denmark
Michael J. Prietula, Carnegie-Mellon University, USA
Ann C. Séror, Université Laval, Canada

Many organizations are changing their structures in order to devolve authority upon lower-level decision makers. The purpose is to improve decision making by moving the point of decision closer to the problems being addressed and by providing incentives to address them effectively. Examples are the distribution of power in workgroups by means of information systems that allow anonymous participation, the decentralization of corporations and government agencies, the deregulation of formerly regulated industries in order to increase competition and efficiency, the privatization of social functions for the same reason, and the economic reform, and in some case dissolution, of command economies, leading to a decreased emphasis on hierarchies and an increased emphasis on markets as coordination mechanisms.

As groups, organizations, industries, and economic systems devolve freedom and responsibility upon lower-level units, their requirements for information processing will change. This will give rise to a need for new information systems that facilitate and encourage coordination by these units. The panel will identify and examine new research issues generated by the development of information systems for organizations undergoing the process of devolution.

The issues under consideration will include, but will not be limited to, the following:

- **Information distortion.** Under both centralized and decentralized systems, opportunistic actors often have incentives to withhold or distort information about markets, productivity, efficiency, and resource availability. Can information systems mitigate the effects of these incentives and ease the transition by making information more widely available?

- **The assumption of responsibility.** As hierarchical authorities devolve responsibilities upon lower-level actors, these actors must discover and evaluate alternatives heretofore unavailable to them. For example, they may be allowed to make investment, pricing and marketing decisions formerly made at higher levels. How can information systems help these actors to discover the new alternatives available to them and to make decisions about them with confidence?

- **The initiation of productive alliances.** Actors given new freedoms may fail to cooperate with other actors when it is in everybody's interest that they do so. How can information systems, and especially telecommunications-based workgroup systems, help these actors to discover opportunities for fruitful cooperation and to communicate proposals and agreements with other actors?

- **Gradual and punctuated devolution.** Organizations may devolve gradually, at different rates in different subunits, or suddenly and comprehensively, in response to unexpected environmental transformations or the mandates of governing bodies. How will the form and pace of devolution be affected by existing and emerging technologies of information processing, such as those of distributed data, model, and knowledge management?

- **A better understanding of organizational dynamics.** As organizations devolve, senior managers and other controlling syndicates must guide the process to minimize transient ill effects. How can information processing technology, and especially the technology of artificial intelligence, help managers better to model and understand the dynamics of devolution?

IT opportunities and designing IT applications for the global enterprise? Recent studies and cases provide examples of its value to IS and organizational research and planning.

Benn R. Konsynski will look at the boundary of the "traditional" organization as it becomes less distinct for today's organization, which deals with many "external" entities through a variety of short- and long-term arrangements such as minority equity ownership positions, purchasing agreements, strategic alliances, and joint marketing agreements. A network is a more appropriate structural model for thinking about enterprise-wide IS for such organizations.

Donald Feldman is the Director of Information Systems for BP Oil Europe. In preparing for Europe 92, BP is restructuring its IS organization and developing a practical IT infrastructure which will enable BP to meet its customers expectations for commonality throughout Europe. How did BP approach this? Were the theoretical and conceptual models outlined above and in other panels useful? Did these or other concepts add to the ability of the IS manager to develop such an infrastructure? Does the BP experience exhibit more of a transformational or an emergent change – or are such distinctions useful when the task is to redesign the IS function?