December 1997

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PANEL 5

INVESTIGATING VIRTUAL ORGANIZATIONS THROUGH SOCIAL NETWORK ANALYSIS

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Groups have been a focus of study for several decades and have been defined in various ways. A consistent theme in the literature, however, is that groups have typically been defined in terms of patterns of interpersonal interaction. For example, groups have been described as collections of individuals who influence each other through social interaction or who have significantly interdependent relations with each other. In fact, much of the early work on task-oriented groups examined group performance explicitly in terms of communication and interaction patterns.

Historically, group interaction has been based in and examined within face-to-face settings. Now, as computers have begun to be used as communication devices as much as computing devices, groups have a broader repertoire of communication media and channels available to them. More and more groups are choosing electronic media for their interactions because they help to overcome the limitations of time, space, and access to information. These new media choices have led to a revolution in the manner in which groups and organizations perform their tasks. Distributed knowledge-based, and virtual organizations have become popular with advances in information technologies. Although virtual organizations are gaining popularity, there is little agreement on their attributes. Also, we do not know how many different types of these organizations may exist and how they may vary in their attributes.

Building on traditional definitions of groups, the panel defines a virtual organization as a geographically dispersed but interdependent group of individuals who are bound by a common interest or goal and who communicate and coordinate among themselves primarily through computer-mediated communication technology. Thus, we consider virtual groups to be *real* groups that are *virtually* co-located.

Therefore, all virtual organizations are geographically dispersed at least to some extent and they all rely on electronic media to some extent. However, they can vary in the time span and organizational membership, among other factors. For example, a short-term virtual project group is likely to behave in a manner different from an on-going virtual group where culture and identity may become important forces that keep the group cohesive. Organizational scope is another significant variable, with intra-organizational groups potentially exhibiting different characteristics than groups that span organization boundaries.

A framework of virtual groups, based on their temporal and organizational scope attributes, is presented. Social networks are then presented as an appropriate conceptual framework and analytical method for studying virtual organizations.