

2005

Effect of Cultural Norms on Media Choice in Global Virtual Teams

Siraman Ramachandran

University of Texas at San Antonio, sriraman.ramachandran@utsa.edu

Follow this and additional works at: <http://aisel.aisnet.org/amcis2005>

Recommended Citation

Ramachandran, Siraman, "Effect of Cultural Norms on Media Choice in Global Virtual Teams" (2005). *AMCIS 2005 Proceedings*. 4.
<http://aisel.aisnet.org/amcis2005/4>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2005 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Effect of Cultural Norms on Media Choice in Global Virtual Teams

Sriraman Ramachandran

Department of Information Systems
The University of Texas at San Antonio
Sriraman.ramachandran@utsa.edu

ABSTRACT

Global Virtual Teams (GVT) typically includes members from culturally different countries, who differ in the views of their relation to authority, time, work ethics, and perception of communication technologies. These cultural differences play an important role in shaping both an individual member's and a team's preference of a particular media to be used for communication in a GVT environment. Media choice affects the effectiveness of communication, trust, knowledge flow and overall team effectiveness. Media choice in GVTs is a moving target (contrary to the expectations of Media Richness Theory which sees media choice as static), with the team opting for different communication technologies during different phases of the project. This article focuses on providing a theoretical understanding of the role of cultural norms of the various members of the GVT in the choice and use of media.

KEYWORDS

Global Virtual Teams, Media Choice, Culture

INTRODUCTION

Many organizations have embraced outsourcing as one of the means to combat increasing global competition. This is evident from the recent study by Gartner, which projects a 65% growth of Business Process Outsourcing in 2004 (Gartner, 2004). Outsourcing of software development projects necessitates collaboration between team members of the outsourcing company and the outsourced company, which brings relevance to use of Global Virtual Teams (Gupta and Gupta, 1992). There have been several studies on GVTs both in the practitioner and academic literature. While the benefits of GVTs, such as increased flexibility, are widely accepted in the literature, the challenges posed by GVTs due to the increased diversity of the team, complexity of coordination and the need for advanced technologies for coordination cannot go understated. A myriad of media technologies like video-conferencing, voice mail, Instant Messaging (IM) and white-board have evolved to enable coordination between the members of GVTs (White, 1986). Studies have shown that the choice of media could play an important role in group development processes, trust and could affect the performance of the team (Dustdar and Hofstede, 1999; Sproull and Kiesler, 1991; Yoo and Alavi, 2001; Jarvenpaa et al. 1998).

Prior literature has been devoted towards studying the reason behind preference of a particular media and under the conditions it is preferred (Trevino et al., 2000). Effective choice and use of media in GVTs have been shaped by communication norms of team members, task characteristics, group characteristics, prior history of team members and their experience with a particular medium (Sproull and Kiesler, 1991). Theories such as Media Richness Theory (MRT) and Social Influence Theory (SIT) have also been used profoundly to predict media choices. But in the case with GVTs, which comprise of members from different countries and cultures, bring along with them different norms on using media and different perceptions towards such media.

Studies have shown that team members from Asian and Western countries differ in their perception of fit between task and media (Lee and Lee, 2003). During the course of their existence, as a GVT moves through different stages of a project, the communication norm of the members evolves, leading to changes in their perceptions about media, and thus in their choice and use of media over the course of the project (Chidambaram, 1996; Orlikowski and Yates, 1994). This research is aimed at understanding the effect of cultural norms on media preference and the subsequent evolution of media choice. In particular, we examine how media choice will evolve over the course of a project when members from culturally diverse regions are a part of the GVT.

PREVIOUS RESEARCH

Based on Maznevski et al (2000) and Jarvenpaa et al (1998)'s definition of GVTs, we define GVTs as geographically and organizationally dispersed electronically communicating group, crossing both cultural and organizational boundaries, with an intent to make and / or implement decisions. GVTs span both time and space, which provides the flexibility to optimize work distribution in a way that team members from different time zones can work continuously on the same project leading to an efficient and productive output.

As GVTs span across time and space, they also cross organizational, functional and cultural boundaries. Countries differ among each other based on their culture, which is defined as "the collective programming of mind which distinguishes the members of one human group from another" (Hofstede, 2001). Based upon a survey of employees from 40 countries of one multinational organization, Hofstede (2001) formulated a five-dimensional empirical model of culture, which he used to broadly categorize countries, and also compare the work related values of employees of different countries. The five widely accepted dimensions of culture are: power distance, uncertainty avoidance, individualism, masculinity, and time-orientation.

Among the five dimensions, researchers have argued that most nations can be differentiated based on the dimension of Individualism/Collectivism (Erez and Early, 1993). The dimension of individualism/collectivism represents the bond in a given culture. Erez and Early (1993) argued that "the individualistic versus collectivistic orientation of a society has profound implications of how individuals work". According to Hofstede's (2001) classification of countries based on cultural dimensions, some of the more individualistic countries are USA, Britain, Australia and Ireland, and, some of the more collectivistic countries are Pakistan, South Korea, India, and Indonesia. According to Gartner's 2004 report on Global Outsourcing Forecast, individualistic countries such as USA and UK lead the list the countries, which outsource, in terms of both volume and value. The list also states that some of the countries to which IT projects are outsourced are India, Bangladesh, China, and Russia, most of which are classified as collectivistic countries. Thus, GVTs involved in outsourced projects would normally consist of members from both individualistic and collectivistic countries. Differences in language, tradition, cultural values and work ethics of the members increase the diversity of the team, and make the already difficult task of effective coordination, more difficult in GVTs.

The literature on groups suggests that increased group diversity in GVTs may lead to 1) an increase in innovation and creative thinking and 2) a decrease in group cohesion, and 3) subsequent increase in intra-group conflict (Hoffman, 1985; Jackson et al. 1991; O'Reilly et al. 1989; Bolman and Deal, 1992). It is also worthwhile to note that research by Mortensen and Hinds (2001) suggested task conflict is more prevalent and more detrimental in GVTs than in face-to-face teams.

Malone and Crowston (1990) define coordination as the set of tasks and processes by which group of actors carrying out activities and manage interdependencies, in order to perform effectively as a group. Norms, which are expected patterns of behavior that reflect ways of acting that have been accepted as legitimate by members of a group, have been seen as critical to group effectiveness, coordination, to avoid interpersonal problems and embarrassments (Hackman, 1983; Hare, 1976).

Communication norms play a crucial role in the media choice of the GVT members and in improving the interpersonal attraction among group members. Increase in communication among group members would foster the convergence of their opinions leading to a better cohesion among them (McGrath, 1984). Frequent, less inhibited and improved task related communication has been proven to affect task participation and thus task performance (McGrath, 1984; Lott and Lott, 1965; Hogg, 1992). Thus the choice of media would affect the level of support that can be provided for the convergence of members' opinions and thoughts. Among the media used in GVTs, rich media like video-conferencing, with high social presence have been proven to increase group cohesion (Dustdar and Hofstede; 1999). But the higher social presence has also been shown to distract the GVT members from their focal tasks leading to reduced task participation, and thus reduce their performance on task outcomes (Yoo and Alavi, 2001). On the other hand, due to the absence of social context cues, lean media like email has been proven to be less intimidating, providing equal opportunities and promoting task oriented focused communication, thus creating illusions of physical and emotional closeness leading to a better task participation than video-conferencing (Sproull and Kiesler, 1991).

The next section is devoted towards the discussion of two of the popular theoretical frameworks used to predict media choice and its effectiveness in predicting media choice in GVTs.

MEDIA CHOICE

Rational Choice Theories

Media Richness Theory by Daft and Lengel (1986) has been the most influential rational choice theory to suggest the appropriateness of a medium for a message. Media richness proponents define richness of a communication medium as the extent to which it can a) provide variety in language; b) transmit multiple cues; c) provide immediate feedback; and d)

provide personal focus. The theory predicted that choice of a rich media would enable users to communicate more quickly, better understand ambiguous messages and lead to better performance on equivocal tasks. With respect to lean media, MRT predicted that choice of a lean media would suit low equivocal tasks. In the order of decreasing richness, the media classifications have been 1) face-to-face, 2) telephone, 3) personal documents, 4) impersonal written documents and 5) numeric documents. Based on the classification of Daft and Lengel (1986), video-conferencing could be classified as a rich media. By providing many social cues and channels, Video-Conferencing could enhance the social presence and thereby could improve the quality of outcomes of equivocal tasks. Similarly, email, a written and asynchronous form of communication, lacks in ability to provide social presence and social cues, could be classified as a lean media. IM, which provides synchronous communication with its ability to provide rich audio and visual signals needed for social presence could be placed between video-conferencing and email, in terms of media richness. But the MRT-based expectation that choice of the media for a particular task primarily depends on richness of the media doesn't always hold true.

Studies have shown that features besides media richness of the media influence media choices (Lee, 1994; Markus, 1994; Yoo and Alavi, 2001). In some of the studies, MRT has been found unable to explain the difference of perceived media richness by individuals (Lee, 1994; Markus, 1994). The applicability of MRT is culturally bounded and limited with respect to media choice prediction for GVT members. MRT doesn't include the possible moderating effect of culture on task-media fit. GVT members who are usually drawn from different cultures, differ in their perception of the fit between task and media, and tend to choose and use media differently, whose choices are difficult to explain with MRT alone (Lee and Lee, 2003).

Social Influence Theories

Studies have shown that meanings and attitudes shared towards a medium have an influence on the choice of a media. Social influence theory argues that social context influences the choice of communication medium through cognitive interpretations and behavior, and, that media perceptions are subjective and socially constructed (Fulk, 1993). Social learning and social information processing theories are often used to explain the construction of social meaning of a certain medium. Social learning theories argue that what one learns and uses behavior is based upon what one sees modeled within social groupings (Bandura, 1977). In extending Social learning theories to IS, Fulk (1993) points out that media choice may also result from the process of social learning within workplace. Social information processing theories contend that an individual's choice of communication media may be influenced by the comments and observation of peers within the workplace (Salanick and Pfeffer, 1978).

Studies testing the social influence theories of media choice have measured the attitudes and behaviors of co-workers and workgroups, and, how these affect others attitude and behavior towards media choice and use. The results show that positive attitude or the frequent usage of a specific medium by work group has a positive effect on individuals (Fulk, 1993; Trevino et al. 2000). Recent studies in IS, have shown evidence for the presence of socially constructed symbolic meaning and its attachment to media like email in different cultures (Lee and Lee, 2003).

With respect to GVT projects, it is most likely that a team member's initial norms about a communication medium would be shaped by their experience with that particular medium and the media symbolism attached to that medium by their cultures. Thus, social influence theories may help predict the media choice of culturally different GVT members.

ROLE OF CULTURAL NORM ON THE CHOICE OF MEDIA

Initial Media Preference of Members from Collectivistic Countries

Although research-to-date has dealt extensively with the effect of cultural perceptions on group development and the role of choice of media on group development, there has been dearth of research on the effect of cultural norms on the choice and use of new media like email or IM or video conferencing in GVTs. In accordance with the five dimensions proposed by Hofstede (2001), members of culturally diversified GVTs have a greater chance to misunderstand each other because they have different views of their relation to authority, the relationship of individuals to society, of resolving conflict and of time.

GVT members from collectivistic nations come from societies where group interest prevails over that of individuals. In such societies, families often live in large groups and they generally identify themselves as "we" (Hofstede, 2001). Schooling in collectivistic culture also prepares them to live in groups, making them more suitable for group projects. Collectivism is also related to high-context cultures, where most of the content messages are embedded in communicative context rather than non-verbal cues, relational cues or indirect messages (Gudykunst and Kim, 1992; Hall, 1976).

In collectivistic cultures, family structures play an important role in developing norms for understanding and internalizing the meaning of communications. The family structure in these high-context cultures also plays an important role in defining the

identity of the speaker. In these cultures, the identity of the speaker often determines whether the individual listens to and acts upon, or ignores the information (Hofstede, 2001).

Erez and Earley (1993) described that team members from collectivistic countries prefer rich media to facilitate two way interactions, to clarify decisions and to have high receiver orientation. Previous studies on collectivistic cultures also suggest that members from those nations might prefer synchronous media for their greater emphasis of accessing and evaluating the contexts underlying communication; as predicted by SIT (Rice et al. 1998).

Overall, from the above analysis, it becomes clear that the initial media preference of team members from collectivistic cultures would be based on social influences rather than on rationality about the suitability of the medium for the message. Thus, members from collectivistic countries would (initially) prefer rich media like video-conferencing or tele-conferencing due to importance they place on need for identity and social structure in teams.

Proposition 1: GVT members from collectivistic countries would initially prefer using rich communication media like video-conferencing than email.

Initial Media Preference of Members from Individualistic Countries

Groups members from individualistic nations come from societies where individual rights are more important than those of the group. Individuals from these societies identify themselves as “I” (Hofstede, 2001). Individualism is also associated with low-context cultures, where individual efficiency and creativity is valued and rewarded, which leads to guarding of information (Olaniran, 1993). Previous research has shown that with its limited ability to transmit social cues, email tends to support goal oriented communication. In addition to its ability to support task oriented communication; by providing the option to rehearse a message before sending, email also provides a way to control the flow of information making it suitable for GVT members from individualistic countries, who, being from a low-context culture, prefer to work towards their task and guard information.

Based on the above analysis, we postulate that members of GVTs from low-context individualistic cultures would prefer lean media like email compared to video-conferencing for its ability: to provide personal space, to support goal oriented communication, and to guard information through its characteristic of rehearsability. Thus their initial choice tends to be rationally and not socially based.

Proposition 2: GVT members from individualistic countries would initially prefer using lean communication media like email than rich media.

Media Choice Emergence in GVTs

The above discussion has helped us in providing theoretical explanation for the initial preference of media for GVT members from both collectivistic and individualistic countries. Previous research has shown that communication norms of group members tend to emerge slowly over time as people subtly and tacitly understand other team members, adjust and adapt their individual preferences, practices and expectations to be aligned with those of other team members (Orlikowski and Yates, 1994). These emerging communication norms may also lead to change in the choice of the media during the different phases of a project (the phases are listed below).

Phase 1- Project initiation: During this phase in GVT, there is a high necessity for transfer of information to clear out the ambiguity of the project. Team member’s initial choice of media would be dictated by their culturally influenced initial communication norm and perceptions about a media.

Phase 2- Mid-Project: Have acquired important project information during the prior phase, the amount of information transfer during the mid-project phase tends to be minimal and task related. The choice of media in Phase 2 would be influenced by the changed communication norm based on the peer attitude and behavior (as predicted by SIT), thus waning out of initial shadow of culturally influenced media choice.

Phase 3 - End-Project: In accordance with Gersick’s (1988) punctuated equilibrium, Phase 3 is characterized by a pressure to complete the task and the time crunch because of it. Thus, during Phase 3, the complexity of the task and experience with the communication medium teams tend to influence the effective choice and use of media.

Based on the above discussions, we have identified a set of propositions for a couple of scenarios with the most prevalent team composition in GVT, i.e., with majority of team members from Collectivistic countries.

Scenario A: Scenario A is an idealistic one, where we assume the absence of moderating variables like resource availability, resource cost, task difficulty and role sponsorship; thus leaving the culture as the most visible variable.

Proposition 3a: During Phase 1, the GVT would use rich media like teleconference and less of emails or IMs; and the usage of communication mediums would be for mostly affect-oriented purposes than for task-oriented purposes.

Proposition 3b: During Phase 2, the GVT would use more of IMs, emails and less of rich media; and the usage of communication mediums would be balanced between task-oriented and affect-oriented purposes.

Proposition 3c: During Phase 3, the GVT would use more of rich media and less of emails; and the usage of communication mediums would be solely for task-oriented purposes.

Scenario B: Scenario B is more of a realistic scenario, which takes into consideration the moderating variables like resource availability, resource cost, role sponsorship and time orientation.

On closer examination of differences between collectivistic and individualistic countries, we can note a second dimension of difference between the countries is how each member relates to authority (i.e. power distance). Collectivistic countries like India, Pakistan, Singapore (which form the majority of nations where jobs have been outsourced to) have a higher power distance. This is inherent in the family and pyramid structure of hierarchy of the society. Children obey their parents and employees obey their employers in such societies. In contrast, individualistic countries have a lower power distance, in which employees and children act more as individuals rather than a part of a family. Power distance forces the members from collectivistic countries to be hesitant while initiating an activity, offering opinions and participate in discussion i.e., task participation. By providing hierarchical and status cues rich media like video-conferencing has the potential to showcase a pyramid like structure in the GVTs, thus hampering the level of task participation of the team members from collectivistic countries.

Rich media like video-conferencing and tele-conferencing has also been proven to reduce task participation. Due to the absence of social context cues, email has the potential to be less intimidating, providing equal opportunities and promoting task oriented focused communication, thus creating illusions of physical and emotional closeness leading to a better task participation. Members from collectivistic cultures, with different cultural values and language differences (who normally are team members) may perceive a difference in status with their individualistic counterparts (who normally tend to be customers i.e. dominant). The difference in status may also be aggravated by the difference in comfort level with a particular media and the comfort level with the language of communication. The choice of email may be better suited to reduce these status asymmetries, leading to better participation in discussion and eventually leading to better task outcomes.

Members from different cultures also have a different perspective of time (Hall, 1976). Members from collectivistic countries have a polychromic view of time. They like to be involved in multitasking, and, are less stringent when it comes to complying with schedules. On the other hand, members from individualistic countries have a monochromic view of time, and emphasize promptness and compliance with schedules. Email, being an asynchronous medium, provides the team members from collectivistic countries with the flexibility to be relaxed with interim deadlines and still meet the final deadline imposed by clients in individualistic countries.

In addition to the issue of relation to authority of the members from collectivistic countries, other factors like cost of the media, availability of the media, who sponsors the use of the media and the difference in time orientation also affects the choice and use of any particular media. Rich media like video-conferencing or tele-conferencing tend to be outraced by lean media like e-mail primarily over the issues of economic viability and time difference between the countries.

Overall, from the above analysis, it becomes clear that the even though the initial media preference of GVT members from collectivistic cultures would be based on social influences rather than rationality-based leading to a preference for richer media; they will eventually choose for lean media like email as their media choice due to issues related with authority, economic viability, provide equal opportunity to participate and provide the flexibility to be polychronic. Even if the members from collectivistic culture have been forced to choose lean media like email (in contrast to their culturally oriented preference to choose rich media), they tend to expand the channel of the media, thus using it in a richer way. For example, collectivistic members with a forced choice of email, would still tend to adhere to their instinct of establishing social bond with the other team members, leading to affect oriented communication through email; than task oriented for which email is better suited for and capable for. The need for members from collectivistic countries to expand the richness of emails falls in line with Channel Expansion Theory, which predict that the richness of the media depends on the goal of the communication, and so even a lean media could expanded to communicate richer messages.

Proposition 4a: During Phase 1, the GVT would use more email and less of richer media like teleconference; and the usage of communication mediums would be for mostly affect-oriented purposes than for task-oriented purposes.

Proposition 4b: During Phase 2, the GVT would continue using email, in addition to IMs and less of richer media; and the usage of communication mediums would be balanced between task-oriented and affect-oriented purposes.

Proposition 4c: During Phase 3, the GVT would use more of richer media and less of emails; and the usage of communication mediums would be solely for task-oriented purposes.

CONCLUSION

This paper has been devoted to examine the role of cultural norms of members of GVTs on the choice of media to be used for interaction among them, and based on it a set of propositions have been developed. In order to understand the relationship between culture, task difficulty, role sponsorship and the choice of media in GVTs, we propose to initially use a qualitative approach in a naturalized setting and collect data from participants. The use of case study allows the researcher to ask the how and why questions in a natural setting i.e., to understand the nature and complexity of the process taking place. We propose to do a single site case study, for which we have planned to choose an outsourcing company which has operations in both individualistic and collectivistic countries and thus has team members from both the countries. We plan to observe the teams during the course of a software project implementation. We propose to use an interpretive approach to analyze our interview, refine our propositions, give an in depth understanding the dynamics behind their choice and use of a particular media, and develop hypothesis for future research.

REFERENCES

1. Bandura, A. (1977) *Social Learning Theory*, Prentice-Hall, NJ.
2. Bolman, L. G., and Deal, T. E. (1992) What Makes a Team Work? *Organizational Dynamics*, 21, 2, 34-44.
3. Chidambaram, L. (1994) Rational Development in Computer-Supported Groups, *MIS Quarterly*, 20, 2, 143-165.
4. Daft, R. L., and Lengel, R. H. (1986) Organizational Information Requirements, Media Richness and Structural Design, *Management Science*, 32, 5, 554-571.
5. Dewhirst, H. (1971) Influence of Perceived Information Sharing Norms on Communication Channel Utilizations, *Academy of Management Journal*, 14, 3, 305-315.
6. Dustdar, S., and G. J. Hofstede (1999) Video-Conferencing across Cultures – A Conceptual Framework for Floor Control Issues, *Journal of Information Technology*. 14, 161-169.
7. Erez, M., and Earley, P. (1993) *Culture, Self-identified and work*, Oxford, UK: Oxford University Press.
8. Fulk, J. (1993) Social Construction of Communication Technology, *Academy of Management Journal*, 36, 5, 921-950.
9. Gartner Research, (2004) *Global Outsourcing Forecast*, May.
10. Gersick, C. J. G. (1988) Time and Transition in Work Teams: Towards a New Model of Group Development, *Academy of Management Journal*, 32, 274-309.
11. Gudykunst, W., and Kim, Y. (1992) *Communicating With Strangers: An Approach to InterCultural Communication*, 2nd Ed, New York, McGraw Hill.
12. Gupta, A. K., and Govindarajan, V. (2000) Knowledge Flows Within Multinational Corporations, *Strategic Management Journal*, 21, 473-496.
13. Gupta, U. G., and Gupta, A. (1992) Outsourcing the IS function, *Information Systems Management*, 9, 3.
14. Hackman, J. R. (1983) *A Normative Model of Work Team Effectiveness*, Yale School of Organization and Management, Research Program on Group Effectiveness, New Haven, CT.
15. Hall, E. (1976) *Beyond Culture*, Garden City, NY.
16. Hare, A. P. (1976) *Handbook of Small Group Research*, The Free Press, New York.
17. Hoffman, L. R. (1985) The Effect of Race-Ratio Composition On The Frequency of Organizational Communication, *Social Psychology Quarterly*, 48, 17-26.
18. Hoffman, L. R., and Maier, N. R. F. (1961) Sex Differences, Sex Composition, and Group Problem Solving, *Journal of Abnormal and Social Psychology*, 63, 543-456.
19. Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors, institutions and Organizations Across Nations*, 2nd ed. Thousand Oaks, CA: Sage Publications.
20. Hogg, M. A. (1992) *The Social Psychology of Group Cohesiveness: From Attraction to Social Identity*, New York University Press, New York.
21. Jackson, S. E., Brett, J. F., Sessa, V. I., Cooper, D. M., Julin, J. A., and Pyronnin, K. (1991) Some Differences Make a Difference: Individual Dissimilarity and Group Heterogeneity As Correlates of Recruitment, Promotions and Turnover, *Journal of Applied Psychology*, 76, 675-689.
22. Jarvenpaa, S. L., Knoll, K., and Leidner, D. E. (1998) Is Anybody Out There? Antecedents of Trust in Global Virtual Teams, *Journal of Management Information Systems*, 14, 4, 29-64.
23. Lee, A. (1994) Electronic Mail As The Medium of Rich Communication: An Empirical Investigation Using Hermeneutic Interpretation, *MIS Quarterly*, 18, 2, 143-157.

24. Lee, Z., and Lee, Y. (2003) Cultural Implication of Electronic Communication Usage: A Theory Based Empirical Analysis, *24th International Conference on Information Systems*.
25. Lott, A. J., and Lott, B. E. (1965) Group Cohesiveness as Interpersonal Attraction, *Psychological Bulletin*, 64, 259-309.
26. Malone, T. M. and Crowston, K. (1990) What Is Coordination Theory and How Can It Help Design Cooperative Work Systems? *Proceedings of ACM Conference on Computer-Supported Cooperative Work*, Los Angeles, CA, 357-370.
27. Markus, M. L. (1994) Electronic Mail As The Medium of Managerial Choice, *Organization Science*, 5,4, 502-527.
28. Maznevski, M. L., and Chudoba. K. M. (2000) Bridging Space Over Time: Global Virtual Team Dynamics and Effectiveness, *Organization Science*, 11, 5, 473-492.
29. Mortensen, M. and Hinds, P. J. (2001) Conflict and Shared Identity In Geographically Distributed Teams, *The International Journal of Conflict Management*, 21, 3, 212-238.
30. McGrath, J. E. (1984) *Groups: Interaction and Performance*, Prentice-Hall, Englewood Cliffs, NJ.
31. Olaniran, B. (1993) Japanese Managerial Communication Processes: Implications for US Organizations, *Arizona Communication Association*, 19, 166-185.
32. O'Reilly, C. A., Caldwell, D. F., and Barnett, W. P. (1989) Work Group Demography, Social Integration and Turnover, *Administrative Science Quarterly*, 34, 21-37.
33. Orlikowski, W. J., and Yates, J. (1994) Genre Repertoire: The Structuring of Communicative Practices in Organizations, *Administrative Science Quarterly*, 39,4, 541-574.
34. Rice, R. E., (1992) Task Analyzability, Use of Media, and Effectiveness: A Multi-Site Exploration of Media Richness, *Organization Science*, 3, 475-500.
35. Rice, R. E., D'Ambra, J., and More, E. (1998) Cross-culture comparison of organizational media evaluation and choice, *Journal of Communication*, 48, 3, Summer.
36. Salanick, G. R., and Pfeffer, J. (1978) A Social Information Processing Approach to Job Attitudes and Task Design, *Administrative Science Quarterly*, 23, 224-253.
37. Sproull, L., and Kiesler, S. (1991) Computers, Network and Work, *Scientific America*, 265, 3, 84-91.
38. Straub, D. (1994) The Effect of Culture on IT Diffusion: Email and Fax in Japan and the US, *Information Systems Research*, 5,1, 547-523.
39. Trevino, L. K., Webster, J., and Stein, E. (2000) Making Connections: Complementary Influences on Communication Media Choices, Attitudes and Use, *Organization Science*, 11, 2, 163-182.
40. Wanous, J. P., and Youtz, M. A. (1986) Solution Diversity and The Quality of Group Decisions, *Academy of Management Journal*, 29, 149-159.
41. White, K. B. (1986) Current Technology Practices: Perspectives from Information System Managers, *SIM Spectrum*, 3, 6, 37-55.
42. Yoo, Y., and Alavi, M. (2001) Media and Group Cohesion: Relative Influences on Social Presence, Task Participation, and Group Consensus, *MIS Quarterly*, 25, 3, 371-390.