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Cross-Cultural Issues in Global Information Systems Development

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INTRODUCTION

As global information systems development practice has become more and more prevalent and diversified, it demands great academic and practicing efforts to address a wide variety of issues (Herbsleb and Moitra, 2001; Lacity and Willcocks, 2001; Carmel and Agarwal, 2002; Sahay et al., 2003; Hawk and Kaiser, 2004). Different from traditional on-site information systems development work, globally distributed information systems development work is situated within different complex socio-cultural contexts, and is mainly conducted by global virtual teams through virtual environments supported by networking technologies. Individual team members of global virtual teams may have diverse national, organizational, and professional backgrounds, which may influence their identities, behaviors, attitudes and values. On one hand, cultural diversity could be used as a resource to enhance creativity and flexibility, and thus might be beneficial for team performance (Adler, 1991; Harrison et al., 2000; Hartenian, 2000; Maugain, 2003; Trauth et al., 2006). On the other hand, cultural diversity may become a barrier to building trust, sharing and transferring knowledge, and thus affect team performance in a negative way (Cameral, 1999; Herbsleb and Moitra, 2001). Therefore, how to make sense of cultural diversity and its impacts on the work practices of global information systems development, and how to effectively manage cross-cultural work practices are becoming very important issues.

RESEARCH PROBLEM

In this paper, I would like to propose research that investigates cross-cultural influences on global information systems development work, with specific emphasis on how socio-cultural factors influence the work practices of global virtual team engaging in global information systems development. The objectives of this research are three folded: to understand how global information systems development work is carried out in real practices and how socio-cultural factors influence the work practices; to develop a theoretical framework to analyze the complexity and dynamics of cultural influences on global virtual teams; and to provide some recommendations to practitioners regarding how to effectively manage the influences of cultural diversity.

RESEARCH BACKGROUND

This research-in-progress is at the intersection of three separate but interrelated research fields – global information systems research, virtual team research, and cross-cultural research. Global information systems development can be seen as a result of the globalization process – the IT industry is becoming more and more globally interconnected. Walsham (2001) presented a set of case studies on cross-cultural information systems production, use, and management. What can be synthesized from these cases is that the existing local socio-cultural context is a critical factor in mediating the globalization process in a specific context and, in turn, will have an impact on the complexity of globalization (Walsham, 2001). The importance of local diversity was further highlighted by a panel discussion at the 2002 International Conference on Information systems (ICIS) (Barrett et al. 2003). A number of studies have shown that culture is a critical influential factor in GISD and has impacts on a variety of issues – managing outsourcing relationships (Nicholson and Sahay, 2001; Sahay et al., 2003; Krishna et al., 2004), managing conflicts (Damian and Zowghi, 2003), building trust (Zolin et al., 2004), preference of software development methods (Hanisch et al., 2001; Borchers, 2003), preference of computer supported collaborative technologies (Massey et al., 2001), knowledge transfer and management (Sarker, 2003; Baba et al., 2004; Nicholson and Sahay 2004), and the process and performance of globally distributed teamwork (Carmel, 1999; Earley and Gibson, 2002; Olson and Olson, 2003; Gluesing and Gibson, 2004).

However, there are two major issues in existing research on cross-cultural perspective of GISD. Myers and Tan (2002) pointed out that most research on global information systems only focuses on national level of cultural analysis while the cultural context is complex and multi-leveled in nature (Leung et al, 2005). Another issue is that many cross-cultural information systems studies often treat culture as a static concept and use existing cultural dimensional models and quantitative methodology, which could not provide in-depth understanding of those complex phenomena. Therefore, several IS scholars call for the better theorizing of culture and the involvement of multiple research methodologies (Myers and Tan, 2002; Walsham, 2002; Weisinger and Trauth, 2002, 2003; Sahay, 2003).

RESEARCH METHODOLOGY

In this research, I take the view of culture that is historically situated and emergent, which is constantly interpreted and negotiated in social relations and interactions by a group of people within a particular socio-cultural context. The conceptualization of culture as dynamic and emergent instead of static and predefined will provide researchers a flexible theoretical lens to examine the evolving and diversified nature of global information systems development work practices. The phenomenon of interest in this study is the cross-culture information systems development work of global virtual teams. Therefore, this study will depict team and organization as levels of analysis and focus on articulating how the surrounding multi-leveled socio-cultural context may affect the phenomenon of interest.

For this research, I adopt a qualitative approach, more specially the multiple-case study method. There are a number of discrepancies among existing literature regarding the cross-cultural influences on global virtual teamwork. Also there is lack of theoretical framework to articulate the cultural sense-making process in virtual environment. Therefore it is important to inductively generate new understanding in real work settings. Case samples of this study may include global virtual teams that are engaging in global information systems development, and are across national boundaries, or across both organizational and national boundaries.

The primary data collection methods proposed in this study will include in-depth interviews, participatory observations, virtual communication logs, project documents, and other related documentation archives. Data collected from various methods will provide multiple perspectives on issues and activities, and serve as triangulation to cross-check the emergent concepts and interpretations. In each case, multiple respondents will be interviewed including project managers, team members, and other major stakeholders from different locations. Because of the geographically dispersed nature of global virtual teams, interviews may be conducted face-to-face or virtually. Participatory observations may

involve visiting multiple sites, attending face-to-face meetings, attending virtual meetings such as videoconferences and teleconferences. Emails and other electronic communication logs will be collected. Projects related documents generated by development teams and organizations will also be collected.

SIGNIFICANCE OF ANTICIPATED RESULTS

This research is interdisciplinary in nature and will interest academicians and practitioners of different research fields. This research suggests investigating the work practices of GVTs in real work settings by using multiple-case study methodology, which is sensitive to the complexity of socio-cultural context. Therefore, it will contribute to the in-depth understanding of how socio-cultural factors are relevant to various issues of work practices of GVTs engaging in GISD projects. From the academic perspective, this research will contribute to existing literature on cross-cultural information systems production, use, and management by developing a cultural sense-making theoretical framework based on theoretical integrations and empirical investigations. From the practicing perspective, understanding the complexity of the socio-cultural influences and the dynamics of cultural sense-making process will help practitioners develop corresponding strategies for cultural diversity management, cross-cultural training, and cross-cultural knowledge management. Furthermore, since cultural diversity issues are becoming increasingly prevalent and important in future IS/IT work practices and workplaces, this research will provide some actionable knowledge with respect to how to understand and address a variety of cultural diversity issues.

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