

# A SITUATED CULTURAL APPROACH FOR CROSS-CULTURAL STUDIES IN IS

**Maged Ali**, Brunel Business School, Brunel University, UK Maged.Ali@Brunel.ac.uk

**Laurence Brooks**, School of Information Systems, Computing & Mathematics, Brunel University, UK Laurence.Brooks@Brunel.ac.uk

## Abstract

*Cultural anthropology seeks to understand the similarities and differences among groups of people in the contemporary world. Although there are many different models of national culture, most IS research has tended to rely almost solely on Hofstede's cultural model (Keil et al., 2000; Straub, 1994; Tan et al., 1995; Watson et al., 1994; Myers and Tan, 2002; Kirkman et al. 2006). This paper, provides a comprehensive framework of situated culture approach to study culture within IS discipline. This is achieved via an articulation of Structuration Theory and the provision of an approach to study cross-cultural phenomena within IS discipline. The paper proposes two main components of the Structuration Theory based analysis model which is proposed as a way to study culture within IS discipline. First, the paper presents ideas behind the practice lens for studying the use of technology, as proposed by Orlikowski (2000). Secondly, the paper presents a Structural analysis approach as detailed by Walsham (2002). The paper argues that using a practice lens contributes to identifying the mediated shared structures between actors through understanding the actions of the actors within the phenomena. Then, using a Structural analysis approach contributes to identifying the cultural dimensions that are embedded in the identified mediated shared structures.*

*Keywords: IS discipline, National Culture, Situated culture, Structuration Theory.*

## 1 INTRODUCTION

The study of culture is rooted in sociology, social psychology, and anthropology. In particular, cultural anthropology seeks to understand the similarities and differences among groups of people in the contemporary world. Within the last 20 years, the practical relevance of researching cultural issues, and especially comparing phenomena across cultures, was questioned (Ferraro, 1990). However, the importance of cultural issues is becoming increasingly evident in many applied disciplines including the managing information technology (IT) (Davison and Martinsons, 2003).

Over the past decade there has been increasing interest in the IS research literature in the impact of cultural differences on the development and use of information and communications technologies. Since many companies are now doing business beyond their national boundaries – and these global activities are facilitated and supported to a large extent by current communications and information technologies – it is important to understand the impact of cultural differences on these activities (Ives & Jarvenpaa, 1991; Shore & Venkatachalam, 1995; Tractinsky & Jarvenpaa, 1995, Myers and Tan, 2002).

In the next section of this paper, key concepts of culture will be discussed. These include definitions of culture, culture characteristics, culture levels, and different themes of IS research where culture has been studied. This is followed by a taxonomy of different national cultural dimensions that has been developed through a normative literature review of IS and culture research area. Then, the paper provides an explanation of an alternative approach to study culture within IS using situated culture.

Finally, the paper concludes with remarks and recommendations for researchers within culture and IS research area.

## 2 CULTURE DEFINITION

A first challenge in conducting research involving culture is arriving at an understanding of what culture is, given the myriad of definitions, conceptualizations, and dimensions used to describe this concept (Straub et al. 2002).

Definitions of culture vary from the very inclusive seeing it as the human-made part of the environment (Herskovitz, 1955); to the highly focused as 'culture is a shared meaning system' (Shweder and LeVine, 1984, p.110).

Groeschl and Doherty (2000, p.14) point out that culture is complex and very difficult to define: "Culture consists of several elements of which some are implicit and others are explicit. Most often these elements are explained by terms such as behaviour, values, norms, and basic assumptions". Some researchers proposed culture as tacit or implicit artefacts such as ideologies, coherent sets of beliefs, basic assumptions, shared sets of core values, important understandings, and the collective will (Jermier et al., 1991; Sackmann, 1992; Groeschl and Doherty, 2000), others suggest that culture includes more explicit observable cultural artefacts such as norms and practices (Jermier et al., 1991; Groeschl and Doherty, 2000; Hofstede 1998), symbols (Burchell et al. 1980), as well as language, ideology, rituals, myths, and ceremony (Pettigrew 1979; Karahanna et al., 2005).

The socio-cultural system and the individual system are two theoretical frameworks likely to be studied when researchers investigate cultural aspects. The former is concerned with the institutions, norms, roles, and values as they exist outside the individual, and the latter is concerned with the subjective culture as reflected by the individual's perception of the elements of the culture system (Dorfman and Howell, 1988).

For example, Mead, (1985) defined culture as "shared patterns of behaviour." This definition has at least two implications. It implied that culture was a group-level construct, situated between the personality of individuals and the human nature that is common to all of us. Societies, organizations, and professions are among the "groups" that could be considered to have their own cultures. It implied that the study of culture involved little more than observing and describing behaviour (Davison and Martinsons, 2003). Hofstede, (1991, p.5) defines national culture as "the collective programming of the mind which distinguishes the members of one group or category of people from another". He suggests that people share a collective national character that represents their cultural mental programming. This mental programming shapes values, beliefs, assumptions, expectations, perceptions and behaviour (Myers and Tan, 2002). According to Hofstede, (1980) culture is equivalent to the collective mental programming of a group, tribe, minority, or a nation. It is the aggregate of individual personality traits.

However, Triandis (1972) defines culture as an individual's characteristic way of perceiving the man-made part of one's environment. It involves the perception of rules, norms, roles, and values, which is influenced by various levels of culture such as language, gender, race, religion, place of residence, and occupation, and it influences interpersonal behaviour. This definition has at least two implications. The first is that it assumes that by analysing the behaviour of an individual of a society would not provide a specific identification of the rules, roles, norms and values of that society but rather shows the perception of that individual of the shared cultures he/she belongs to. The second is that behaviour of an individual would be influenced by the shared culture which is influenced by different levels of cultures.

Another theme within the IS/IT discipline is to give an operational perspective to the culture concept, to link it with the potential influence on IS/IT phenomena. Stahl (2003) defines culture as a determinant of usability of computers. That means that the culture from which a developer,

programmer, or user stems makes a difference regarding whether he/she is willing or able to use a certain technology.

Culture in the sense of a meaning-constituting horizon of the collective life-world determines the perception and use of IT. This may be for the organizational level where culture can influence whether employees are able and willing to use certain technologies. It may also be true on a social level where people shared perceptions have some bearing on the use of IT. A national culture that emphasizes sharing and the collective, for example, will likely lead to different uses of IT compared with one that emphasizes the individual and competition (Raboy 1997; Riis 1997).

### **3 CULTURAL LEVELS**

National culture (or cross-cultural) research and organizational culture research have emerged as largely separate research streams within IS/IT discipline. While the two streams have experienced little overlap, they both share a focus on defining the values that distinguish one group from another (Leidner and Kayworth, 2006).

Culture has been studied within the IS discipline at various levels, including national (macro level, cross-cultural), organizational, group (sub-culture, professional, special interest, social class, etc.) and individual (micro level, subjective culture) (Triandis, 1972; Hofstede, 1984; Dorfman and Howell, 1988; Myers and Tan, 2002; McCoy, 2003; Ali and Alshawi, 2004).

Culture at a social or national level is the culture shared between people in a society or a country (Hofstede, 1984). On the other hand, culture that is shared between people working in an organization is called organizational culture (Stahl, 2003). Also, culture that is shared between people with a similar profession or occupation is called professional or occupational culture or sub-culture of a specific interest group i.e., political party or a social class (Myers and Tan, 2002). However, individual culture is referred to as the subjective culture of an individual which is related to how much an individual takes from the different cultures that the individual is part of (Dorfman and Howell, 1988; Karahanna et al., 2005).

It is theorized that the relative influence of the different levels of culture on individual behaviour varies depending on the nature of the behaviour under investigation. Thus, for behaviours that include a strong social component or include terminal and moral values, national cultures might have a predominant effect. For behaviours with a strong task component or for those involving competence values or practices, organizational and professional cultures may dominate (Karahanna, et al, 2005).

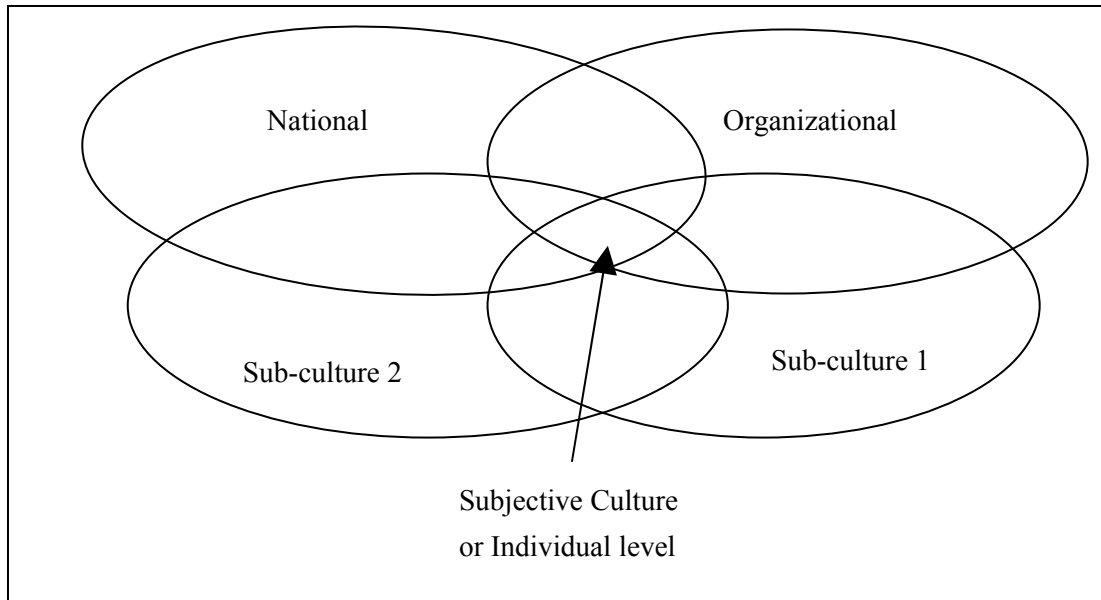
In an organizational setting, national culture is not the only type of culture that influences managerial and work behaviour. Rather, behaviour is influenced by different levels of culture ranging from the national level, through organizational levels to the group and other sub-cultures level (Hofstede, 1991; Karahanna, et al, 2005).

Stating from SIT, Straub et al., (2002) has proposed that these levels interact. Different layers of culture can influence an individual's behaviour and that each individual is influenced more by certain layers and less by other layers, depending on the situation and their own personal values.

The various levels of culture are laterally related (see Figure 1). The levels of culture are not necessarily hierarchical from the more general (national) to the least general (group) (Karahanna, et al, 2005). For instance, in the case of multinational corporations, organizational culture can span national, professional, and other sub-cultures. Furthermore, groups may include members from several organizations, professions, nations, religions, ethnic backgrounds.

In figure 1, the area labelled individual represents the subjective culture or the individual level of culture where an individual's culture is the product of several levels of culture. Each individual belongs to a specific national culture. Individuals may also have a religious orientation, a professional degree, belong to a specific ethnic, linguistic group, and so on, which is represented by different sub-

culture groups. Individuals may work in an organization, which is represented by organizational culture. Some of these cultures may dominate depending on the situation. The cultures that enfold the individual interact and comprise the individual's unique culture, eventually influencing the individual's subsequent actions and behaviour (Karahanna, et al, 2005).



**Figure 1:** Interrelated levels of culture (Adapted from Karahanna et al., 2005)

#### 4 CULTURAL ELEMENTS (LAYERS)

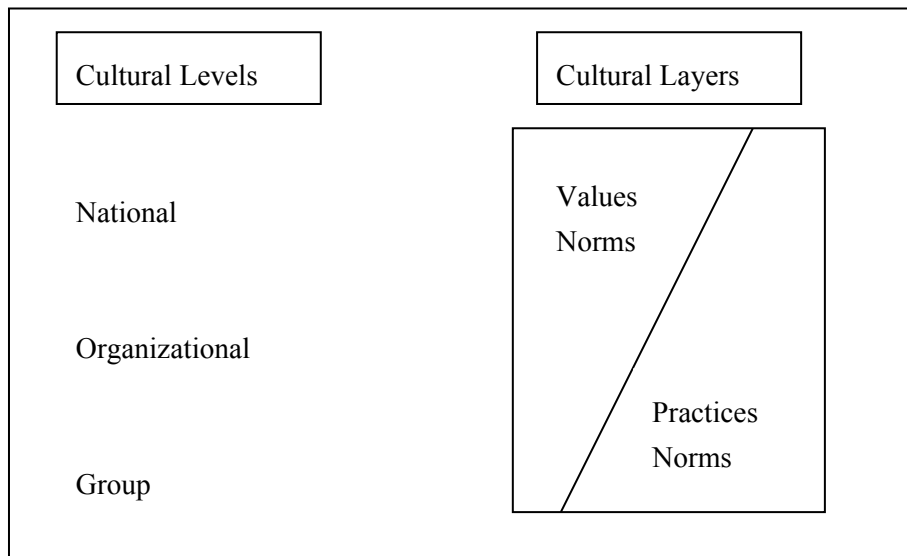
Values refer to relationships among abstract categories that are characterized by strong affective components and imply a preference for a certain type of action (Karahanna, et al, 2005). Values are acquired through lifestyle altering experience, such as childhood and education. They provide a society with fundamental assumptions about how things are. Once a value is learned, it becomes integrated into an organized system of values where each value has a relative priority. This value system is relatively stable in nature but can change over time reflecting changes in culture (e.g., migration) as well as personal experience. However, values also change quickly through extreme circumstances e.g. war.

Practices are learned later through socialization at the workplace after an individual's values are firmly in place. They provide a society with learned ways of doing things, such as facts about the world, how it works, and cause-effect relationships. Whereas values are fairly hard to change, practices can be altered (Karahanna, et al, 2005).

A key issue that emerges is the relationship between values and practices. Values are affected by practices during the formative years in which values are starting to form. Later on in life, practices do not influence values. Conversely, practices are always evolving. Ideally, practices should reflect values and be in sync with them, but that is not always the case. Karahanna, et al. (2005) suggest that this discontinuity typically occurs when practices dictated by one level of culture (e.g., organizational) are at odds with values comprising another level of culture (e.g., national). Practices are much more related to current environmental conditions.

National cultural differences are composed primarily of differences in values and to a lesser extent, of differences in practices (Hofstede, 1991). Figure 2 (adapted from Karahanna et al., 2005) illustrates the relative importance of values and practices at various levels of culture. Values are more important

than practices in the higher level cultures (i.e., national), and practices and norms dominate the lower level of cultures (i.e., group).



**Figure 2:** Cultural Levels and Cultural Layers (Adapted Karahanna et al., 2005)

## 5 NATIONAL CULTURAL VALUES DIMENSIONS

Schein (1985) argues that values are more easily studied than basic assumptions, which are invisible and preconscious and therefore not easily identified, as well as cultural artefacts (technology, art, visible and audible behaviours) that, while being more visible, are not easily decipherable.

It is not surprising, then, that the vast majority of theories that conceptualize culture do so in terms of reference group value orientations (Jackson, 1995) such as value dimensions of national culture (Hofstede, 1980).

Even while the focus has largely been on values, there is a tight linkage between cultural values and the subsequent behaviours and actions of social groups (Posner and Munson 1979). In this sense, values can be seen as a set of social norms that define the rules or context for social interaction through which people act and communicate (DeLong and Fahey 2000; Keesing 1974; Nadler and Tushman 1988). These social norms have an impact on subsequent behaviours of firm members through acting as a means of social control that sets the expectations and boundaries of appropriate behaviours for members (O'Reilly and Chatman 1996). Thus, the study of organizational values may be particularly useful in explaining certain behaviours with respect to how social groups interact with and apply IT in organizational contexts (Leidner, and Kayworth, 2006).

There is general acceptance that the value-based framework for measuring cultures has been helpful in deciphering cultures (Leung et al., 2002; Smith et al., 2002; Leung et al., 2005). Although the construct is inherently complex, it is possible to label many different aspects or dimensions of it.

## 6 CULTURE AND IS

From analysis of the literature on IS and culture, Leinder and Kayworth (2006) have identified the following themes for the IS and culture research area:

- (1) culture and information systems development,
- (2) culture, IT adoption, and diffusion,

- (3) culture, IT use, and outcomes,
- (4) culture, IT management, and strategy,
- (5) IT's influence on culture, and
- (6) IT culture.

As globalization of business and systems continues, there is a need for additional study on the cross-cultural adoption and use of IT. Further, it is important to consider cultural dimensions specifically when testing IS research models. This involves making theoretical connections between the IS research model and national culture and testing those relationships with appropriate measures of culture (McCoy, 2003).

While most research on culture has taken a quantitative approach, there are some (although very few) that have gone into the study with no predefined cultural archetypes (Myers and Tan, 2002).

The literature on cross-cultural IT management considers both explicit and implicit characteristics of the cultural context. Relevant explicit aspects include such things as language, local laws, and national information infrastructure. An alternate area of inquiry in cross-cultural research has focused on the interaction between the implicit aspects of the cultural context and IT management. Implicit refers to the more subtle and less visible aspects of culture such as stated assumptions, values, and norms that define "acceptable" management practices in the IT workplace. The implicit aspects of the cultural context have been examined for both organizational and national cultural contexts (Weisinger and Trauth, 2003).

## 7 CULTURAL THEORETICAL FRAMEWORK OF ANALYSIS

Cross-Cultural Information Systems management refers to managing the design, development, and implementation of IS and technologies in a cross-cultural environment (Weisinger and Trauth, 2003)

The cultural distinctions at the national or social level may be expected to exert a significant influence on the management of IT and IS (Davison and Martinsons, 2003). This means that national cultural differences might influence IS implementation and use by impacting people who are involved in each of the stages of IS implementation and use (Feng, 2006).

Significantly, at different levels of analysis of culture, several cultural dimensions exist. They include values, cognitive structures, and behaviours at the individual level; structures and rituals at the organizational level; and artefacts and attributes at the national or societal level. For example, the relative preference for making money or having leisure time (assuming that they are mutually exclusive) will vary from person to person. In contrast, work routines will reflect most directly the culture of an organization, while the degree of public compassion for the jobless will vary from society to society (Davison and Martinsons, 2003).

The socio-cultural system and the individual system are two theoretical frameworks likely to be studied. The former is concerned with the institutions, norms, roles, and values as they exist outside the individual, and the latter is concerned with the subjective culture as reflected by the individual's perception of the elements of the culture system. The process by which individuals acquire the cognitive frame of reference and acceptable patterns of behaviour characteristics of a culture (Beres and Portwood, 1979) has been called socialization (Dion, 1985; Dorfman, and Howell, 1988).

Establishing the construct validity of a variable is often a complex, difficult, and lengthy process. Construct validity is defined as "representing the correspondence between a construct (conceptual definition of a variable) and the operational procedure to measure or manipulate that construct" (Schwab, 1980). Since cross-cultural research endeavours are undertaken to establish generalizations (cultural universality) and/or differences (cultural specificity) among cultures, the validity of measures employed in the research investigations are of paramount importance. The nature of the constructs



must be adequately defined, reliably measured, and behave in a manner that is theoretically meaningful (Nunnally, 1978). If a cultural difference “is observed in both behavioural and paper-and-pencil measures, and fits theoretical expectations, and is observed at both the individual and group level, one may begin believing that a cultural difference is really there” (Triandis, 1980, p.8).

## **8 SITUATING CULTURE**

The situating culture approach holds that cultural understanding is locally situated, predominantly behavioural and embedded in everyday and evolving practices, jointly negotiated by actors within specific contexts and constituting situated learning (Weisinger and Salipante, 2000). The application of this approach has been provided through cases of workplace cultures of US multinational IT organization working in Ireland. Even though the focus of this research was on local IT firm culture, these cases show how the local culture of a global IT firm represents the interaction between industry, corporate, and national contexts. It resulted in locally situated work practices and distinct socially negotiated realities that ultimately impact behaviour in these settings (Weisinger and Salipante, 2002).

Weisinger and Trauth (2003) considered IT management from a situated culture perspective. Their study suggests that cultural understanding is locally situated, grounded in behaviour, and firmly fixed in the socially negotiated-work practices of everyday life. The framework was applied to an analysis of the interplay between national cultures of the donor and recipient countries, the IT industry culture, and the organizational culture of one firm.

Context, according to Giddens (1984), is the structure or environment within which social interactions occur. These social interactions can also be examined at multiple levels of analysis. Contextual IS research at the social level of analysis is less prevalent; as Walsham (2000) points out in his discussion of an agenda for global IS research. This research typically consists of country-level studies that examine the influence of a particular national context on IT development, diffusion and use (Weisinger and Salipante, 2002). While context is concerned with the structure or environment within which the social interactions occur, culture is concerned with the meanings that are ascribed to that context (Weisinger and Salipante, 2002).

Hofstede (1980) is representative of the view that national culture is assumed to be a relatively stable entity that is based upon shared assumptions. The alternative view is that culture is fragmented, variable historically situated (Brightman, 1995). Using the language of Structuration Theory (Giddens, 1984), the social structures within which social interactions occur can be seen as being modified by those interactions. According to this view, culture does not refer to stable, generalized dimensions assumed to be held in common by members of a particular group. Rather, it is fluid, contextually dependent, and created by actors within a group who may hold conflicting assumptions and worldviews. In other words “culture is what culture does” (Weisinger and Salipante, 2002).

The two themes of context and culture come together in the concept of “cultural knowing.” Relying upon a view of culture as practice or action, Weisinger and Salipante (2000) define cultural knowing as a social process that stems from situated invention and mutual learning based in everyday action/practice. This perspective leads to a view of lived culture as a socially negotiated, dynamic, practical and locally situated process. From this theoretical viewpoint, social interactions occur through structure, and at the same time create it. Taking Giddens’ (1984) perspective, culture is a socially enacted dynamic process. Cultural knowing, therefore, refers to the knowledgeability (Giddens, 1984) of how to interact effectively cross-culturally in a given context (Weisinger and Salipante, 2002).

Taking the situated view of context and culture has several implications for cross-cultural IS research. First, it implies that research frameworks and findings would allow for the movement over time, or the reshaping of culture as it is commonly viewed. Second, it implies that research would take into account contextual factors that influence local cultures. Finally, it implies that researchers would more

deeply explore behaviour and practice as signals for the very local cultures being studied (Weisinger and Salipante, 2002).

In the next section, the paper explores concepts of Structuration Theory (Giddens, 1979; 1984) as a deeper analytical perspective with which to study cultural differences within IS (Walsham, 2002). A justification for using Structuration Theory follows with a discussion around how Structuration Theory can be articulated so as to study cultural influence on the phenomena.

## **9 STRUCTURATIONAL ANALYSIS OF SITUATED CULTURE**

Culture, as discussed in section 2, can be conceptualized as shared symbols, norms, and values in a social collective such as a country (Walsham, 2002). In Giddens's (1984) terms, systems of meaning, forms of power relations, and norms of behaviour have a more widespread currency than merely within the mind of one person. Giddens (1984, pp. 25) defines these as structural properties, namely "structured features of social systems stretching across time and space". In other words, national cultures are composed of many different people, each with a complex structure in their mind, none of which can be thought of as fully shared (Walsham, 2002).

Walsham's argument (2001) shows a specific focus on the role of ICTs, concluding that global diversity needs to be a key focus when implementing and using such technologies. If this argument is broadly correct, then working with ICTs in and across different cultures should prove to be problematic, in that there will be different views of the relevance, applicability, and value of particular modes of working and use of ICTs which may produce conflict (Walsham, 2002).

Walsham, (2002, pp.361) argued that "the crucial point here is that structure, defined in this way, is seen as rules of behavior and the ability to deploy resources, which exist in the human mind itself, rather than as outside constraints". Orlikowski (2000, pp.404) stated that, while she was looking at the use of technology within organizations, that "people enact structures which shape their engagement and situated use of that technology".

The paper will now explain the two main components of the Structuration Theory based analysis model which is used in this research. First, the paper presents ideas behind the practice lens for studying the use of technology, as proposed by Orlikowski (2000). Secondly, the paper presents a Structural analysis approach as detailed by Walsham (2002). The paper argues that using a practice lens contributes to identifying the mediated shared structures between actors through understanding the actions of the actors within the phenomena. Then, using a Structural analysis approach contributes to identifying the cultural dimensions that are embedded in the identified mediated shared structures.

### **9.1 Practice Lens for Studying Use of Technology**

Orlikowski (2000) has proposed an extension to the structural perspective on technology that develops a practice lens to examine how people, as they interact with a technology in their ongoing practices, enact structures which shape their emergent and situated use of that technology. Viewing the use of technology as a process of enactment enables a deeper understanding of the constitutive role of social practices in the ongoing use and change of technologies in the workplace.

A practice lens more easily accommodates people's situated use of dynamic technologies because it makes no assumptions about stability, predictability, or relative completeness of the technologies. Instead, the focus is on what structures emerge as people interact recurrently with the technology (Orlikowski, 2000).

Enactment of structures allows the framing of what users do with technologies, not as appropriation, but as enactment. Thus, rather than starting with the technology and examining how actors appropriate

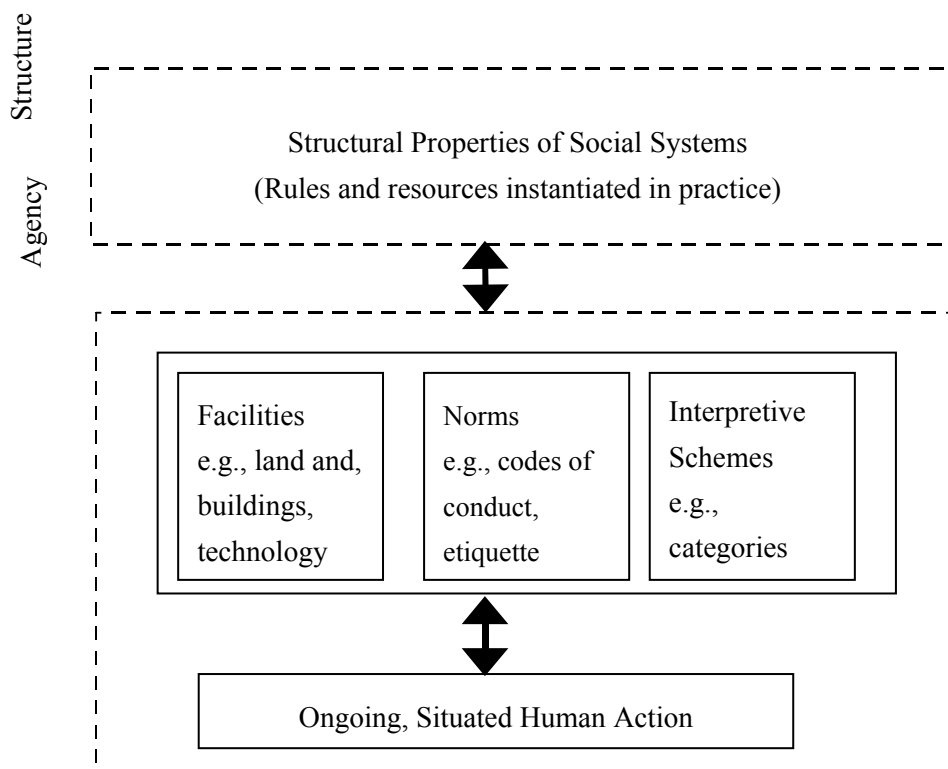


its embedded structures, this view starts with human action and examines how it enacts emergent structures through recurrent interaction with the technology at hand (Orlikowski, 2000).

Together, the notions of emergent structure and enactment afford a practice-based extension to existing structural models of technology. This practice lens posits humans as constituting structures in their recurrent use of technology. Through their regularized engagement with a particular technology in particular ways in particular conditions, users repeatedly enact a set of rules and resources which structures their ongoing interactions with the technology. Users' interaction with a technology is thus recursive in their recurrent practices, users shape the technology structure that shapes their use. These enacted structures of technology use, which Orlikowski called technologies-in-practice are the sets of rules and resources that are (re)constituted in people's recurrent engagement with the technologies at hand (Orlikowski, 2000).

Giddens (1979; 1984) proposed the notion of structure as the set of enacted rules and resources that mediate social action through three dimensions or modalities: facilities, norms, and interpretive schemes. In social life, actors do not enact structures in a vacuum. In their recurrent social practise, they draw on their (tacit and explicit) knowledge of their prior action and the situation at hand, the facilities available to them, and the norms that inform their ongoing practices, and in this way, apply such knowledge, facilities, and habits of the mind and body to 'structure' their current action (see Figure 3). In doing so, they recursively instantiate and thus reconstitute the rules and resources that structure their action.

Giddens, (1979) stated that in any structural analysis, one must foreground some structures and background others. So, some other structures enacted in the same time will not be as central in the study.



**Figure 3:** Practice Lens of Structures in Practice (Orlikowski, 2000)

The practice lens focuses on human agency and the open-ended set of emergent structures that may be enacted through recurrent use of technology. Such a practice lens recognizes that emergence and impermanence are inherent in social structures. Users have the option, at any moment to 'choose to do

otherwise' (Giddens, 1993) with the technology at hand. In such possibilities to do otherwise lies the potential for innovation, learning, and change (Orlikowski, 2000).

## 9.2 Structural Analysis Approach

A summary of key points of using a Structural analysis to study cultural influence on IS phenomena, as presented by Walsham (2002), is provided in Table 1.

Structure	Structure as memory traces in the human mind Action draws on rules of behaviour and ability to deploy resources and, in so doing, produces and reproduces structure Three dimensions of action/structure: systems of meaning, forms of power relations, sets of norms
Culture	Conceptualized as shared symbols, norms, and values in a social collective such as a country Meaning systems, power relations, behavioural norms not merely in the mind of one person, but often display enough systematic to speak of them being shared But need to recognize intra-cultural variety
Cross-cultural contradiction and conflict	Conflict is actual struggle between actors and groups Contradiction is potential basis for conflict arising from divisions of interest, e.g. divergent forms of life Conflicts may occur in cross-cultural working if differences affect actors negatively and they are able to act
Reflexivity and change	Reproduction through processes of reutilization But human beings reflexively monitor actions and consequences, creating a basis for social change

**Table 1:** Structuration analysis to study Cultural influence on IS phenomena (Adapted from *Walsham, 2002*)

Walsham (2002, pp.359) proposes the Structural analysis approach and argues that "it can be used to analyze cross-cultural conflict and contradiction, cultural heterogeneity, detailed work patterns, and the dynamic nature of culture".

Firstly, a Structural analysis offers a way of addressing the question of both structural contradiction and conflict. It has been argued that conflicts may occur in cross-cultural working if differences in structures in the mind are perceived to affect actors negatively, and they are able to do otherwise (Walsham, 2002).

Secondly, a Structural analysis opens up the possibility of examining the heterogeneous systems of meaning, power relations, and norms of different social groupings within the same national culture (Walsham, 2002).

Thirdly, a Structural analysis offers a valuable theoretical underpinning for cross-cultural studies which aims to discover differences in work-related level rather than macro-level cultural values, which otherwise tend to be somewhat anecdotal in nature. Such an analysis focuses on meaning, power, and norms within particular work groups and how these affect particular work patterns and behaviour (Walsham, 2002).

Fourthly, Structuration Theory, in addition to analyzing structural reproduction, emphasizes reflexivity on the part of human actors and thus changes in structure in the mind (Walsham, 2002).

Structuration Theory could be used to analyze any case study involving cross-cultural working and IS. Viewed from a more critical perspective, however, any theory illuminates some elements of particular case situations and is relatively silent on others. Structuration Theory is no exception and, as noted by Giddens (1984) himself, the use of Structuration Theory does not preclude the use of other theories in tandem (Walsham, 2002).

## 10 10- CONCLUSION AND RECOMMENDATIONS FOR CULTURAL RESEARCH:

Myers, and Tan (2002) have proposed that IS researchers interested in conducting research on culture and global information systems should adopt a more dynamic view of culture – one that sees culture as contested, temporal and emergent. They proposed a research agenda for global information systems that takes seriously the idea that culture is complex and multidimensional and can be studied at many different levels. It can be studied at the international (e.g. West vs. East), national, regional, business, and organisational levels of analysis (Fan, 2000), and these levels are often interconnected and intertwined. Redding (1994) says that the comparative management literature as a whole suffers from an excess of simple empirical reportage, and is theoretically weak at the middle and higher levels.

Tayeb (1994), says that the enthusiasm for, and interest in, cross-cultural research has not generally been matched by careful attention to the design and methodologies required to conduct such research. Myers and Tan, (2002) recommend that the IS researchers conduct more in-depth case studies and ethnographies of the relationship between IT and culture in many different parts of the world.

Culture is much more dynamic than has been assumed in much of the comparative management and IS research literature. Myers and Tan, (2002) suggest a research agenda that adopts a more dynamic view of the relationship between culture and global information systems – one that does not simply take culture as given and one which uses appropriate research methodologies to develop thick descriptions of the culture and its impact on IT development, implementation, management and use.

## References

- Ali, M. and Alshawi, S. 2004. 'Developing A Structural Approach to Electronic Customer Relationship Management (ECRM)', *Proceeding of EMCIS 2004*, Tunis, Tunisia [CD Proceedings].
- Beres, O. P., and Portwood, J. D. 1979. 'Explaining cultural differences in the perceived role of work: An international cross-cultural study', In G. W. England, A. R. Negandhi, and B. Wilpert (eds.), *Organizational Functioning In A Cross-Cultural Perspective*, Kent, Ohio: Kent State University.
- Brightman, R. 1995. 'Forget Culture: Replacement, Transcendence, Relexification', *Cultural Anthropology*, 10(4): 509-546.
- Burchell, S., Clubb, C., Hopwood, A. G., Hughes, J., and Nahapiet, J. 1980. 'The Roles of Accounting in Organizations and Society', *Accounting, Organizations, and Society*, 5(1): 5-27.
- Chinese Culture Connection 1987. 'Chinese values and the search for culture-free dimensions of culture', *Journal of Cross-Cultural Psychology*, 18(2): 143-164.
- Davison, R. and Martinsons, M. 2003. 'Guest Editorial, Cultural Issues and IT Management: Past and Present', *IEEE Transactions On Engineering Management*, 50(1): 3-7.
- Delong, D. W., and Fahey, L. 2000. 'Diagnosing Cultural Barriers to Knowledge Management', *Academy of Management Executive*, 14(4): 113-127.
- Dion, K. K. 1985. 'Socialization in Adulthood'. In G. Lindzey and E. Aronson (Eds.), *The Handbook of Social Psychology*, Vol. 2 (3<sup>rd</sup> edition): 123-147.
- Dorfman, W. P. and J. P. Howell 1988. 'Dimensions of National Culture and Effective Leadership Patterns: Hofstede Revisited', *Advances in International Comparative Management*, 3, 127-150.
- Fan, Y. 2000. 'A classification of Chinese culture', *Cross Cultural Management - An International Journal*, 7(2): 3-10.
- Feng, X. 2006. 'A framework for Cultural Influenced Information Systems Management', *The Electronic Journal of Information Systems in Developing Countries*, 23(2): 1-14.

- Ferraro, G. P., 1990. *The Cultural Dimensions of International Business*, Englewood Cliffs, NJ: Prentice-Hall.
- Giddens, A. 1979. *Central Problems in Social Theory*, Macmillan, Basingstock, UK.
- Giddens, A. 1984. *The Constitution of Society*, Polity, Cambridge, UK.
- Giddens, A. 1993.
- Groeschl, S. & Doherty, L. 2000. 'Conceptualizing culture', *Cross Cultural Management - An International Journal*, 7(4): 12-17.
- Herskovitz, M.J. 1955. *Cultural Anthropology*, Knopf: New York.
- Hofstede, G. 1980. *Culture's Consequences: International Differences in Work-Related Values*, Beverly Hills, California: SAGE Publications.
- Hofstede, G. 1984. 'Culture Consequences', Newbury Park, CA: Sage.
- Hofstede, G. 1991. *Cultures and Organizations: Software of the Mind*, McGraw-Hill, New York.
- Hofstede, G. 1998. 'Identifying Organizational Subcultures: An Empirical Approach', *Journal of Management Studies*, 35(1): 1-12.
- Hofstede, G. 2000. *Personal Communication*.
- Ives, B. and Jarvenpaa, S. L. 1991. 'Applications of global information technology: key issues for management', *MIS Quarterly*, 15(1): 33-49.
- Jackson, 1995
- Jermier, J. M. Slocum, J. W. Fry, L. W. and Gaines, J. 1991. 'Organizational Subcultures in a Soft Bureaucracy: Resistance Behind the Myth and Façade of an Official Culture', *Organization Science*, 2(2): 170-194.
- Jones, M. 1999. 'Structuration Theory, in: Currie, W.L. & Galliers, R.D. *Rethinking Management Information Systems*. Oxford: Oxford University Press: 103-135.
- Jones, M. and Nandhakumar, J. 1993. 'Structured development? A structural analysis of the development of an executive information system', in: Avison, D.E., Kendall, J.E. and DeGross, J.I. (Eds.) *Human, Organizational and Social Dimensions of Information System Development*. Amsterdam: North- Holland,
- Jones, M. and Karsten, H. 2003. *Review: Structuration Theory and Information Systems Research*, Research Papers in Management Studies, Judge Institute of Management, University of Cambridge.
- Karahanna, E., Evaristo, J., and Srite, M. 2005. 'Levels of Culture and Individual Behaviour: An Integrative Perspective', *Journal of Global Information Management*, 13(2): 1-20.
- Keesing, R. M. 1974. 'Theories of Culture', *Annual Review of Anthropology*, 3, 73-97.
- Keil, M. Tan, B. C. Y. Wei, K. K. Saarinen, T. Tuunainen, V. and Wassenaar, A. 2000. 'A cross-cultural study on escalation of commitment behaviour in software projects', *MIS Quarterly*, 24(2): 299-325.
- Kirkman, B. L. Lowe, K. B. and Gibson, C. B. 2006. 'A quarter century of Culture's Consequences: a review of empirical research incorporating Hofstede's cultural values framework', *Journal of International Business Studies*, 37, 285-320.
- Leidner, D. and Kayworth, T. 2006. 'Review: A Review Of Culture In Information Systems Research: Toward A Theory Of Information Technology Culture Conflict', *MIS Quarterly*, 30(2): 357-399.
- Leung, K. Bond, M.H. Reimel de Carrasquel, S. Munoz, C. Hernandez, M. Murakami, F. Yamaguchi, S. Bierbrauer, G. and Singelis, T.M. 2002. 'Social axioms: the search for universal dimensions of general beliefs about how the world functions', *Journal of Cross-Cultural Psychology*, 33(3):286-302.
- Leung, K. Bhagat, R.S. Buchan, N.R. Erez, M. and Gibson, C.B. 2005. 'Culture and international business: recent advances and their implications for future research', *Journal of International Business Studies*, 36(4): 357-378.
- Myers, M. D. and Avison, D. E. 2002. *Qualitative Research In Information Systems: A Reader*. London, SAGE.
- McCoy, S. 2003. 'Integrating National Cultural Into Individual IS Adoption Research: The

- Need for Individual Level Measures', *Proceedings of the Ninth Americas Conference on Information Systems (AMCIS) 2003*, Tampa, Florida, USA (CD Proceedings).
- Mead, 1985
- Nadler, D. and Tushman, M. 1988. *Strategic Organization Design*, Scott Foresman and Company, Glenview, IL.
- Nunnally, J. C. 1978. *Psychometric Theory* (2nd ed.), St. Louis: McGraw-Hill, Inc.
- O'Reilly, C. A. and Chatman, J. A. 1996. 'Culture as Social Control: Corporations, Cults, and Commitment', *Research in Organizational Behaviour*, 18, 157-200.
- Orlikowski, W. J. 1992. 'The Duality of Technology: Rethinking the Concept of Technology in Organizations', *Organization Science*, 3(3): 398-429.
- Orlikowski, W. J. 1993. 'CASE tools as organizational change: Investigating incremental and radical changes in systems development', *MIS Quarterly*, 17(3) 309-340.
- Orlikowski, W. 2000. 'Using Technology and Constituting Structure: A Practice Lens for Studying Technology in Organizations', *Organization Science*, INFORMS, 11(4): 404-428.
- Orlikowski, W. J. and Baroudi, J. J. 1991. 'Studying information technology in organizations: Research approaches and assumptions', *Information Systems Research*, 2(1): 1-28.
- Orlikowski, W.J. and Robey, D. 1991. 'IT and the Structuring of Organizations', *Information Systems Research*, 2(2): 143-169.
- Pettigrew, A. M. 1979. 'On Studying Organizational Cultures', *Administrative Science Quarterly*, 24(4): 570-581
- Posner, B. Z., and Munson, J. M. 1979. 'The Importance of Values in Understanding Organizational Behaviour', *Human Resource Management*, 18(3): 9-14.
- Raboy, M. 1997. 'Cultural Sovereignty, Public Participation, and Democratization of the Public Sphere: the Canadian Debate on the New Information Infrastructure', *National Information Infrastructure Initiatives Vision and Policy Design*, Cambridge, Massachusetts and London, England, MIT Press: 190-216.
- Redding, S. G. 1994. 'Comparative management theory: Jungle, Zoo or Fossil Bed?', *Organization Studies*, 15(3): 323-359.
- Riis, M. A. 1997. 'The Information Welfare Society: An Assessment of Danish Governmental Initiatives Preparing for the Information Age', *National Information Infrastructure Initiatives Vision and Policy Design*, Cambridge, Massachusetts, and London England, MIT Press: 424-456.
- Sackmann, S. A. 1992. 'Culture and Sub-Cultures: An Analysis of Organizational Knowledge', *Administrative Science Quarterly*, 37(1): 140-161.
- Schein, E. H. 1985. '*Organizational Culture and Leadership*', Jossey-Bass, San Francisco, CA.
- Schwab, D. P. 1980. 'Construct validity in organizational behaviour', In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behaviour*, JAI Press: 2, 3-43.
- Shore, B., and Venkatachalam, A. R. 1994. 'Prototyping: A metaphor for cross-cultural transfer and implementation of IS applications', *Information & Management*, 27, 175-184.
- Shweder, R.A and Levine, R.A. 1984. *Culture Theory: Essays on Mind, Self and Emotion*, Cambridge University Press: New York.
- Smith et al. 2002
- Stahl, B. C. 2003. 'Cultural Universality Versus Particularity In CMC', *Proceedings of the Ninth Americas Conference on Information Systems (AMCIS) 2003*, USA (CD Proceeding).
- Straub, D. 1994. 'The Effect of Culture on IT Diffusion: E-Mail and Fax in Japan and the U.S', *Information Systems Research*, 5(1): 23-47.
- Straub, D. Loch, K. Evaristo, R. Karahanna, E. and Srite, M. 2002. 'Toward a Theory-Based Measurement of Culture', *Journal of Global Information Management*, 10(1): 13-23.
- Tan, B. C. Y. Watson, R. T. and Wei, K. K. 1995. 'National culture and group support systems: Filtering communication to dampen power differentials', *European Journal of*



- Information Systems*, 4, 82-92.
- Tayeb, M. 1994. 'Organizations and national culture: Methodology considered', *Organization Studies*, 15(3): 429-446.
- Tractinsky, N. and Jarvenpaa, S. L. 1995. 'Information systems design decisions in a global versus domestic context', *MIS Quarterly*, 16(4): 507-534.
- Triandis, H. C. 1980. 'Introduction to Handbook of cross-cultural psychology', In H. C. Triandis & W. W. Lambert (Eds.), *Handbook of Cross-Cultural Psychology: Perspectives*, 1, 1-14, Boston: Allyn & Bacon.
- Triandis, H. C., 1972. *The Analysis Of Subjective Culture*, New York: John Wiley & Sons.
- Walsham, G. 1993. *Interpreting Information Systems In Organizations*, Wiley & Sons, Chichester.
- Walsham, G. 1995. 'Interpretive case studies in IS research: nature and method', *European Journal of Information Systems*, 4(2), 74-81.
- Walsham, G. 2001. *Making a World of Difference: IT in a Global Context*, Wiley, Chichester, UK.
- Walsham, G. 2002. 'Cross-Cultural Software Production and Use: A Structural Analysis', *MIS Quarterly*, 26(4): 359-380.
- Walsham, G. 2006. 'Doing Interpretive Research', *European Journal of Information Systems*, 15, 320-330.
- Walsham, G. and Han, C.K. 1991. 'Structuration Theory and Information Systems Research', *Journal of Applied Systems Analysis*, 17, 77-85
- Watson, R. T. Ho, T. H. and Raman, K. S. 1994. 'Culture: A fourth dimension of group support systems', *Communications of the ACM*, 37(10):44-55.
- Weisinger, J. Y. Salipante, P. F. 2000. 'Cultural Knowing as Practicing: Extending Our Conceptions of Culture', *Journal Of Management Inquiry*, 9(4): 376-390.
- Weisinger, J. and Trauth, E. 2002. 'Situating Culture in the Global Information Sector', *Information Technology & People*, 15(4): 306-320.
- Weisinger, J. and Trauth, E. 2003. 'The Importance of Situating Culture in Cross-Cultural IT Management', *IEEE Transactions on Engineering Management*, 50(1): 26-30.