



Virtual Organization: Duality of Human Identities in Consciousness and Entity

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INTRODUCTION

Inspired by the recent work of Schultze and Orlikowski (2001), this research extends the scope of the virtual organization in terms of virtual space, a metaphor used in *time* (beyond the constraint of time we live) and *space* (beyond the constraint of actual location we are belonging to) dimensions (Allcorn, 1997). It is true that a virtual organization inherits the attributes of virtual space – a new concept of time and space. In other words, a virtual organization does not exist in our time and space, but rather exists only in virtual space (perceptual world), which is the metaphor of our consciousness, not reality. A virtual organization, in this meaning, is the metaphor of our designed and structured consciousnesses, existing in virtual space to perform the intended actions of interests. However, the most important thing in virtual organization is to identify the role of human actors who get involved in both physical and perceptual world.

PURPOSE

Given that e-business is an imperative in the modern business world, the definition of the dimension of virtual organization is necessary to set up competitive strategies in e-business. However, for many companies, this is a very challenging task due to the many emergent nebulous interpretations that currently exist. Many new business models have been created, tried, and have failed in the e-business area. E-business is still a developing field in terms of organizational strategies, structures, and behaviors, which is indicative of the fact that virtual organization is not firmly established yet in virtual space (Ahuja and Carley, 1999).

Because the use of the terms like virtual space and virtual organization originates from symbolic languages (Faucheux, 1997) to understand and explain new phenomena, metaphors play a very powerful role in structuring virtual organizations. These metaphors facilitate providing the meaning of existence, thus we can treat it like a real organization in virtual space. Continuous analogical processes between virtual and real organizations create the meaning of existence of virtual organizations because there exist commonalities and discrepancies in them (Ahuja and Carley 1999). A virtual organization, operating within virtual space imagery, exists in our consciousness; while an actual organization physically exists in various forms of entities (more tangible or definable manner) such as culture, politics, resources, etc (Morgan 1986). Although virtual organization exists in our consciousness, it is connected with its physical counter part supported in the 'real' world, which Allcorn (1997) described as parallel virtual organization and bureaucratic hierarchical organization counterparts. However, in the near future, there is a possibility that a 'real' organization exists only when its virtual counterpart exists in virtual space as Mowshowitz (1994) described: 'a dominant paradigm' of virtual organization due to its unique advantages in the efficiency, cost and effectiveness of goal-oriented activity. Surprisingly, human actors manage to control these two opposites of real and virtual worlds - thus, it becomes obvious that humans have the duality of existence in both the real world and the virtual world.

This research discloses the social aspects of a virtual organization and identifies the roles of human actors in a virtual organization (or 'consciousness' in Faucheux, 1997). This consciousness exists in the perceptual world that we create beyond the limits of time and space

(Allcorn, 1997). However, its counterparts exist in various forms (entities) in the real world. To bridge the gaps between the consciousnesses and the entities, there exists a need for human interveners who possess dual identities in both virtual and real worlds. This research provides the meaning of virtual organization, and leads the explanation of the relationship between the consciousnesses (virtual organizations) and entities (real organizations) with human intervention (human players).

THEORETICAL FINDINGS

Schultze and Orlikowski (2001) examine rhetorical oppositions between real organization and virtual organization, and in doing so apply metaphors to the discourse. The visions or views of two opposing elements are not divergent or dichotomous, but rather offer substitutes of opposition, or dualism. As Orlikowski (1991) proposed in her earlier paper, *The Duality of Technology*, this dualism is not mutually exclusive. The dualism originated from the admirable work by Giddens (1984) – *The Constitution of Society*. Giddens's (1984) structuration theory integrated two main streams of sociology, objectivism and subjectivism. It seems structuration theory adopts the notion of phenomenology, as it seeks to make explicit the implicit structure and meaning of human experiences (Sanders, 1982). Phenomenology searches for the essence of what an experience *essentially is*. It is the intentional analysis between objective appearance and subjective apprehension. Structuration theory (the process of structuration of organization), seeks a complementary essence in structures of organization science, in the process of struggles between objectivism and subjectivism. Interestingly, the conflict of objectivism and subjectivism appeared in metaphors, as Lakoff and Johnson (1980, pp. 189) stated:

"Objectivism and subjectivism need each other in order to exist. Each defines itself in opposition to the other and sees the other as the enemy. Objectivism takes as its allies: scientific truth, rationality, precision, fairness, and impartiality. Subjectivism takes as its allies: the emotions, intuitive insight, imagination, humaneness, art, and a "higher" truth. ... They coexist, but in separate domains. Each of us has a realm in his life where it is appropriate to be objective and a realm where it is appropriate to be subjective."

Human players with their experiences have very important roles in both phenomenology and metaphors. The key mediator of objectivism and subjectivism is always the human experience. Another important fact (usually overlooked by researchers) is that the use of metaphors appeared in both the physical world and the perceptual world (Harrington, 1991) because the terminology 'organization' itself resulted from *dead* metaphors. Tsoukas (1991) describes this process in which metaphors "have become so familiar and so habitual that we have ceased to be aware of their metaphorical nature and use them as literal terms." It implies that the metaphors of virtual organizations are *live* metaphors (Tsoukas, 1991) "knowing that these words are substitutes for literal utterances" using dead metaphors (organization per se). Therefore, live metaphors, are used to describe virtual organizations in another dimension where we can do what is not possible in the real world, as this virtual world operates without the constraints of time and space, which restrict us in the physical world. Figure 1 shows the relationships between real organizations and virtual organizations, with human interveners.

Figure 1: Dual identities of human players in both real and virtual organizations



The process of structuration is the reciprocal interaction of human players and institutional properties of organizations (Giddens, 1984) as Orlikowski (1991) pointed out, “the theory of structuration recognizes that human actions are enabled and constrained by structures, yet these structures are the result of previous actions.” Because we live in both real and virtual worlds, we have both objective and subjective understandings of each world – dual identities. The above model, which is adopted from the duality of technology of Orlikowski (1991), depicts four processes that operate continuously and simultaneously in the interaction between human players and both real and virtual organizations. These processes include: (i) institutional properties, represented by arrow r1 (objective appearance of the real organization) and arrow v1 (objective appearance of the virtual organization), which are the *medium* of human players; (ii) structures, represented by arrow r2 (subjective construction of the real organization) and arrow v2 (subjective construction of the virtual organization), which are the *product* of human players; (iii) the interaction of human players in both worlds, and the resultant influences on the social contexts of the real organization within which it is built and used (the direction of arrow r1 and v2); and how (iv) the virtual organization is built and used within particular social contexts in a real organization (the direction of arrow v1 and r2).

IMPLICATIONS

Becoming a successful virtual organization is reaching institutionalization in virtual space. Barley and Tolbert (1997) defined an institution as “shared rules and typifications that identify categories of social actors and their appropriate activities or relationships”. As they explained their recursive model (institutions and actions), institutionalization involves the behaviors of revision or replication of organizational abstracts (work procedures), and entails objectification and externalization of behaviors. Upon further inference, institutions from real organization’s business processes constrain human actors (constitutive nature, r1) then human actors construct institutions of virtual organization (constituted role, v2), and/or vice versa (from v1 to r2).

Above arguments provide complementary insights to the social process explained by structuration theory (Giddens 1984). In this theory, actions and institutions continuously interact determining the structures. Structuration theory lacks explanation of how these interactions (revising and reproducing an institution or structure) are processed although this is arguable as Giddens explains the role of reflection, interaction etc. However, Barley and Tolbert (1997) clearly stated that their work, the aim of institutional theory, is “to develop the implications of structuration theory for the interplay between actions and institutions and to address the practical problem of how to study institutional maintenance and change in organizations.”

The authors believe that the results of this study are compatible with the belief of Barley and Tolbert (1997) that “the institutional perspective must come to grips with institutionalization as a process if it is to fulfill its promise in organization studies.” The focus of this

study is the explanation of “what is going on at a virtual organization?” The process revealed by this research is a rich description of theoretical induction. A limitation of this process is that it only reflects one part of recursive model of institutional theory (Barley and Tolbert 1997). Authors are further extending this study.

CONCLUSIONS

Orlikowski (1996) studied organizational transformation. The approach of the study is similar to her study in the view that organizational transformation is “the ongoing practices of organizational actors, and emerges out of their (tacit and not so tacit) accommodations to and experiments with the everyday contingencies, breakdowns, exceptions, opportunities, and unintended consequences that they encounter” (Orlikowski 1996). The above statement is identical to the findings of this study in that users of the system continuously interact with the system through producing, reproducing, and transforming work practices (Giddens 1984).

This study shows the social aspects of a virtual organization. Similar to Mowshowitz’s (1997) depiction of a virtual organization as a computer and a social system, findings of this study complements the virtual organization as a communication tool or computer networks that increase the efficiency and effectiveness of organization performances (Mowshowitz, 1994). The proposed model provides a lens for understanding virtual organizations that is different from viewing the technological construction alone and sociological understanding of virtual organizations through structuration, providing the insights and profound developments in emerging organizations.

REFERENCES

- Ahuja, M. and Carley, K. (1999). Network Structure in Virtual Organization. *Organization Science*. 10 (6). 741-757.
- Allcorn, S. (1997). Parallel virtual organizations: managing and working in the virtual workplace. *Administration & Society*. 29 (4). 412-439.
- Barley, Stephen R. and Tolbert, Pamela S. (1997). Institutionalization and Structuration: Studying the links between Action and Institution. *Organization Studies*, 18 (1). 93-117.
- Beer, Stafford (1984). The viable system model: its provenance, development, methodology and pathology. *Journal of the Operational Research Society*. 35 (1). 7-25.
- Faucheux, C. (1997). How virtual organizing is transforming Management Science. *Communications of the ACM*. 40 (9). 50-55.
- Giddens, A. (1984). *The constitution of society*. Berkeley, CA: University of California Press.
- Harrington, J. (1991). *Organizational structure and information technology*. Hertfordshire, UK: Prentice Hall International.
- Lakoff, G., and Johnson, M. (1980). *Metaphors we live by*. Chicago, IL: University of Chicago Press.
- Morgan, G. (1986). *Images of organization*. Beverly Hills, CA: Sage Publications.
- Mowshowitz, A. (1994). *Virtual Organization: A Vision of Management in the Information Age*. The Information Society. 10. 267-288.
- Mowshowitz, A. (1997). *Virtual Organization*. *Communications of the ACM*. 40 (9). 30-37.
- Orlikowski, Wanda J. (1991). The Duality of Technology: Rethinking the Concept of Technology in Organizations. *Organization Science*. 3 (3). 398-427.
- Orlikowski, W. (1996). Improvising organizational transformation over time: A situated change perspective. *Information Systems Research*, 7(1), 63-92.
- Sanders, Patricia. (1982) *Phenomenology: A New Way of Viewing Organizational Research*. *Academy of Management Review*. 7 (3). 353-360.
- Schultze, U. and Orlikowski, W. J. (2001). Metaphors of virtuality: shaping an emergent reality. *Information and Organization*. 11 (1). 45-77.
- Tsoukas, H. (1991). The missing link: a transformational view of metaphors in organizational science. *Academy of Management Review*. 16 (3). 566-585.

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