Virtual Work, Trust and Rationality

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INTRODUCTION

Since the development of the Internet—and the emergence of computer networking as a mass medium in the mid-1990s—many organizations and institutions have experimented with Internet protocol (IP)-based communications to coordinate work and activities across geographical distance. This has been in response to growing needs to coordinate business and projects between different offices, firms, regions, and states. Rather than organizations flying people to meet face-to-face, network technology presents opportunities for persons located apart to work together. It offers the potential for cheap and efficient collaborations across distance. Yet, while economic pragmatics drive organizations to adopt virtual work methods, virtual working is difficult to implement. This is because it strains many conventional assumptions about work behaviour and the cognitive and emotional foundations of collaboration.

BACKGROUND

Since the 1970s, there has been a general trend worldwide for organizations to move from being closed systems to open systems. This has involved growing pressures on organizations to interact with their environment rather than trying to internalize their environment. The most visible consequences of this have been the escalating tendency of organizations to contract out functions, to relocate parts of their operations across the world, and to grow the number of strategic collaborations with other organizations. The result is more and more organizational actors working with persons—often persons they do not know—in other locations. Working with people at a distance means working virtually (Duarte & Snyder, 1999; Franke, 2002; Igbaria & Tan, 1998; Jackson, 1999; Kisielnicki, 2002; Lipnack & Stamps, 2000; Mowshowitz, 2002; O'Hara-Devereaux & Eccles, 1994). Virtual collaborators (teams and partners) have no shared physical presence. Collaborators may see one another only rarely if at all.

The technologies of virtual collaboration are relatively straightforward: e-mail, ftp, collaborative groupware, and audio-video conferencing. Groupware and IP-based conferencing is still relatively under-utilized. Third-party hosted groupware offers solutions to high-level collaboration across firewalls. IP-based conferencing provides opportunities to enrich interactions with sound and visuals. Groupware to date, however, does little more than make conventional file storage and threaded discussion available to persons working in multiple locations across organizational boundaries. Conferencing software is only beginning to be able to deliver quality audio across low bandwidth connections. Typically, high-quality video and the sharing of complex software applications still require high network bandwidth, and are often unavailable from roaming and non-institutional locations.

While technology shapes the possibilities of virtual interactions, psychology is a more powerful factor in determining the viability of such interactions. A basic condition of virtual collaboration is the ability to work with others without seeing them, knowing them, or meeting them in person. While technology can enable such work, to effectively leverage these technological possibilities, organizations have to adapt themselves to different ways of working, and in some cases they have to re-invent themselves. Working virtually at the micro-level of teams, groups, and pairs is only effective where the larger organizational environment lends itself to virtual interaction.

There are three basic types of organization: social, procedural, and the virtual or self-organizing (Miller, 2002). Social organizations are the most common type. These are based on face-to-face interactions and on character norms such as loyalty, dedicated service, and "keeping your word". Procedural organizations are built on impersonal roles and rules. Virtual organizations are structured around more abstract patterns and forms. The family firm and the relationship-driven Japanese corporation are examples of the social organization (Fukuyama, 1995). The Fordist-type American corporation typifies the procedural kind (Chandler, 1977). In contrast, production and distribution reliant on intangible or intellectual capital, such as licensing, patents, or correspondence, encourages forms of virtual collaboration based on high degrees on self-organization (Barley, Freeman & Hybels, 1992).

In order to be effective, any organized human activity must be rational. Rationality is another word for continuity, identity, and stability of expectation. Organizational behaviours deteriorate or collapse if the members of an organization cannot see that these behaviours are for the most part rational. The emotional correlate of rationality is trust. What is felt to be reliable, and worthy of trust, is

also that which is recognized to be rational. Any organization where people trust one other is more effective than an organization where persons are suspicious of each other (Kramer & Tyler, 1996).

In social organizations, people "with character" are generally recognized as rational actors. These might be persons who are dependable, loyal, and unwavering in their treatment of each other. Through demonstrating that they are good at following social norms, such agents generate trust (Fukuyama, 1995; Handy, 1995). With the development of equity corporations and modern management in the late nineteenth century, social organizations in many places were replaced at least in part by procedural or bureaucratic organizations (Chandler, 1977; Yates, 1989). These developed around rules, roles defined by rules, procedures, work demarcations, impersonal written communication, and file management. Knowledge of rules rather than of people provided organizational continuity, identity, and stability. Thus persons who were consistent at following and applying rules acquired reputations for trustworthiness. Predictability in decision-making and task execution became the primary source of trust in bureaucratic organizations—complementing and often superseding the loyalty and patronage work cultures of social organizations.

Virtual work does not follow the logics of either social or procedural organizations. Without face-to-face interaction, character norms cannot be the basis of organized action. At the same time, procedural rules are difficult to agree on, to follow, or to enforce because virtual collaborators do not share the same office, organization, or manager. Virtual actors have to deal with multiple rule sets across diverse institutions, geographies, and cultures. Under these conditions, rules become ambiguous, conflicted, and uncertain. One party's rationality becomes another's irrationality. Such conflicting expectations breed distrust. Thus, under virtual conditions, rationality and trust have to be generated by other means (Murphy, 2003).

CRITICAL ISSUES

Because there is not the same history of working virtually as there is of working socially or working procedurally, identification of the means by which virtual partners and teams generate rationality and trust is less developed. If virtual collaborators cannot rely on personal moral character or on impersonal "rules and roles" to facilitate their interaction, then what can they rely on? The simplest answer is that, in the absence of social cues or clear-cut procedural direction, persons working have to be self-organizing. The key to successful self-organization is the sense of pattern or designing intelligence. Where self-directed activity (Ray & Bronstein, 1995) dominates cooperative and peer interaction, design

intelligence and pattern rationality function as the coordinating medium of organized activity and group behaviour. If not, collective cohesion readily collapses.

Human beings have a strong design sense. They pick up exceptionally quickly on design characteristics such as rhythm, harmony, and proportion. Pattern recognition is central to brain processing (Davies, 1992). For instance, we use our pattern sense to make judgments about regular sentences, trustworthy buildings, and reliable machines (Alexander, 1977; Fodor & Pylyshyn, 1988; Gelernter, 1998). Such pattern rationality is also conducive to building trust. Patterns generate feelings of surety, satisfaction, and reliability. This applies as much to work environments as to cities, machines, or sentences. To create patterns, organizations employ tacit forms of aesthetic cognition (Calas & Smircich, 1996). Aesthetic cognition uses beauty, elegance and economy rather than rules or roles to achieve its ends.

Successful virtual work is conducted like a design process (Murphy, 2003). It relies less on the passing around of overt messages, and more on the ability of collaborators to understand through the exercise of imagination where their part "fits" into the overall design of the workflow. "Fit" is achieved by thinking in aesthetic terms of proportionality, rhythm, and harmony rather than in terms of rules or roles. The rationality of a virtual organization is not the rationality of character or procedure but of design. Much of this "acting by design" is intuitive or unspoken. It rests on imaginative cognition. Persons who work virtually by necessity cannot talk a lot or interact a lot with each other—so they need to imagine a lot. They need to be good at projective or anticipatory thinking. This projective thinking is not the same as the anticipatory thinking involved in either relationship empathy or in Gantt chart style project management. Rather, it is much more figurative in nature. The virtual collaborator who uses imagination is good at "seeing the shape of things" in lieu of dense social relationships or strong procedural guidance.

Virtual team or partnership work relies heavily on imaginative visualization and intuition. This is a kind of tacit knowledge. It is tacit in the sense that it involves picture thinking and pattern cognition rather than verbalization. It requires the cognitive-psychological capacity to "figure" things out (Mintzberg & Westley, 2001). Such cognitive figurative methods are closer in kind to processes of creative design than they are to processes of social recognition. In this context tacit does not mean the implicit understanding we derive from the warm handshake or the disapproving stare of another person. The tacit nature of figurative work methods thus are different in nature from the tacit knowledge that we draw from the bodily presence of collocated work partners. In the case of the imagination, tacit refers to high levels of picture-like abstraction. At the same time, however, because many aspects of this design intelligence operate non-discursively, the imaginative abstraction that is required in virtual working is quite unlike the explicit rules

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