

Cultural Barriers to Co-location: Distributed Creativity in the Information Age?

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Extended Abstract**

Much of the current enthusiasm for exploiting Knowledge Management (KM) as a fashionable weapon in the unequal struggle with information either assumes or implies that knowledge is ultimately all of one kind and can be moved – in an unproblematic way – from one context to another. Global virtual teams, which were almost unheard of a decade ago, have become established as an essential part of the process by which information is integrated and exploited to manage internationally distributed operations. In many cases, these teams rarely meet on a face to face basis. Their increasing influence is instead coupled to advances in Information Communication Technologies (ICTs) that offer the potential to generate virtual 'interaction spaces' that span conventionally defined organisational and national boundaries. In this respect, advances in ICT-supported virtuality accentuate the problematic nature of boundaries between 'insiders' and 'outsiders'. Labels that attribute the affiliation of individual agents to 'ontologically solid' organisations or nations are challenged by activities that can be achieved in emergent virtual spaces. Whereas working, learning and innovation are traditionally thought to conflict with each other, communities of practice represent a shared social space in which their interconnectedness becomes apparent (Brown and Duguid 1991). ICTs provide a virtual extension to the physical adjacency associated with joint enterprise based on face-to-face interaction. And presuppositions, about the extent to which information can be rendered meaningful by different participants in these virtual spaces, often under-acknowledge or ignore the significance of asymmetric access to virtual interaction spaces, together with the differential ability of participants situated in different contexts to render exchanged information meaningful.

The processes of resolving uncertainty and 'getting things done' (hereafter referred to as 'practice') involve mutually enabling interactions amongst working, learning and innovation. Practice generates new knowledge that might be retained as a tool for enabling future practice. But the knowledge that facilitates practice is not all of one type. Actual practice depends on many types of knowledge – such as intuition, emotion, judgement and skilled action – that are situated in specific contexts and cannot be objectified in a scientific sense (Spender 2001). As Michael Polanyi famously observed, "*we can know more than we can tell*" (Polanyi 1967: 4, emphasis in the original) and, while tacit knowledge cannot (by definition) be explained in explicit terms, its existence is revealed in practice. By moving from a view of 'knowledge as an object', to a consideration of the processes by which practice is situated in particular interaction spaces, it is possible to consider how explicit knowledge (held by individuals and groups) and tacit knowledge (held by individuals and groups) interact to enable practice. Consequently, the extent to which practice depends on context-specific individual and collective tacit knowledge has profound implications for the limits to virtuality. Our stance is that Japan (which the world's second largest economy and leading supplier of credit) provides a spectacular example of the limits to virtuality, along with popular Anglo-Saxon presuppositions about the importance of individual thinkers, individual responsibility, individual accountability, explicit knowledge, and explicit logic-rational decision-making.

Whereas Western cultures have tended to accord a privileged status to objective knowledge and the scientific method, we contend that Japan's company-as-family workplace organisations provide dramatic examples of tightly bounded knowledge-generation spaces in which essential aspects of practice are effectively contained within organisational boundaries and heavily mediated by collectively held tacit knowledge. But the ability of Japan's workplace organisations – or 'ba' (which roughly means 'space' or 'interaction field') – to operate as almost leak-proof social containers for accumulated group-level tacit knowledge depends upon Japan's institutions, as depicted in North's (1990: 3) influential definition of institutions as "rules of the game" or "humanly devised constraints that shape human interaction". Although North differentiated between informal constraints (sanctions, taboos, customs, traditions, codes of conduct) and formal rules (constitutions, laws, property rights), he implies that tacit constraints can be converted into formal rules. Despite writing in a completely different genre, Nonaka and Takeuchi's (1995) landmark study of Japan's knowledge-creating companies similarly lends support to the idea of a march towards the universal connotations of a monist epistemology. In particular, their focus on tacit-explicit "knowledge conversion" is often associated with a monist approach that somehow 'captures' tacit knowledge by making it explicit. And they conclude their argument with the claim that the Japanese knowledge creating process is: "...no longer endemic to Japanese companies. It is universal" (1995: 246). But assuming away the importance of context (and situated knowledge that cannot be objectified) removes the possibility of interpreting the factors that differentiate Japan from its Western counterparts.

Japan is the only G-7 economy whose traditional social values owe almost nothing to Mediterranean origins; the others share Judaeo-Graeco-Roman traditions and differences amongst them appear less pronounced when they are compared to Japan (Dore 1973: 419). Throughout its government-coordinated 150-year transition from late-feudalism to economic superpower, Japan has been effective at learning from abroad and re-engineering Western science and technology according to Japanese precepts; but it has done so without allowing Western institutions to interfere with a distinctly Japanese approach to practice. Furthermore, the institutions that render Japanese practices legitimate in a Japanese context are dominated by informal constraints (sanctions, taboos, customs, traditions, codes of conduct) that are learned implicitly (i.e., without conscious effort on the part of the learner) and, by their very nature, are not readily apparent to outsiders. Possibly, many of the Westerners, who once rushed to discover the secrets of Japan's miracle growth, were bewildered by a society that operates without regard to Anglo-Saxon expectations about objectivity and explicit reasoning. Japan's social etiquette stresses the subtle art of indirect communication, ritualised understatement about one's own achievements, and the significance of what is not said. Consequently, attempts to represent the tacit knowledge that is embedded in local practice as explicit knowledge do not convey the 'insider experience' to outsiders. Access to good translators does not necessarily provide visitors with access to meaningful information. Hard-hitting questions from outsiders – and especially the desire to know 'why?' – are typically countered by a polite search for more neutral topics of conversation.

While it is clear that there are cultural differences between Japan and its Western counterparts, simplistic appeals to the notion of culture as way of explaining these differences do not explain these differences. Culture might be represented as a set of values and beliefs, but representing these symbols in explicit terms does not provide the situated

'insider experience' that is necessary to read the intentions of others and accurately anticipate what might happen. The insider view embodies intuitions, emotions, judgements and a potential for skilled actions that are situated and cannot be abstracted and presented to outsiders.

Communication patterns differ reflecting the cultural attributes of respective practices. Hall (1976) provides a clear split between:

High Context cultures

Much of the information being transmitted is in the physical and social context of the conversation; relatively little information is in the explicit message. Communication is indirect; there is room for ambiguity and interpretation. People expect others to know what they mean according to collectivist conventions.

Low Context Cultures

Most of the information is conveyed explicitly, directness is valued and little ambiguity, explicit, clear and to-the-point information amongst individual agents.

According to the above distinction, Japan is a high context culture that contrasts with the Anglo-Saxon traditions associated with individualism and explicit knowledge. Compared to Japan, other G-7 nations fall into the low context category. But the apparent simplicity of these distinctions becomes highly problematic in attempts to interpret the nature of boundaries and the interaction spaces that situate various local and global practices. On this account, our stance is that Cook and Brown's (1999) pluralist epistemology – combined with a distinction between different knowledge tools that are possessed and the active process of using them to enable practice – provides greater insights into the nature of boundaries between different types of insider-spaces with which knowledge is generated.

Whereas Nonaka and Takeuchi propose that tacit knowledge is something that "cannot be articulated very easily" (1995: 8), Cook and Brown (1999: 397) remain faithful to Polanyi's idea that it cannot be expressed at all; hence they comment that "...it is not possible, under any circumstances, for tacit knowledge to become explicit (or vice versa)" (Cook and Brown 1999: 397). For example, the tacit knowledge required to ride a bicycle can be used, in practice, without any sense of tacit knowledge becoming explicit. An emergency stop can be initiated before the driver is conscious of seeing a child running into the road; waiting for tacit-explicit "knowledge conversion" would imply a higher accident rate. Tacit knowledge acts directly on practice in a pre-conscious way and cannot be captured in KM-style 'knowledge audits'. An orchestra might retain the collectively held tacit knowledge to play to a certain standard when all of its members are asleep, but an indication of what they have remembered is only revealed when they play.

To explore some of the implications that arise from the interaction between Japanese and Anglo-Saxon tendencies to privilege different types of knowledge, we use a case study of Toyota's involvement in the revitalisation of a failing General Motors auto-production facility in Fremont, California. This is developed from a brief review of processes that shape Japanese knowledge generation processes situated in Japan and the implications that arise

when Japanese practitioners have to operate in national environments in which the game is played according to very different rules.

In conclusion, the paper argues that interaction spaces for knowledge generation can be conceptualised in terms of the institutional processes that situate practice in different contexts. Japan's institutions – and in particular the dominant role played by the implicit constraints that render particular practices legitimate – have far reaching implications for the nature of Japanese adjustment paths into trans-national interaction spaces. The epistemological nature of its high-context interpretation codes is tuned to the detection of signals that contrast with the types of sensitivities that are prevalent in Western environments. We summarise some of the essential differences to support the idea that boundaries are highly problematic; and conventional assumptions about ontological solidity can be more appropriately interpreted through the use of epistemological pluralism and the processes that situate actual practices in particular contexts. A better understanding of the dialectic between institutional contexts and the evolution of nested and overlapping interaction spaces offers the potential to consider creativity and practice at different levels of analysis and the dynamic shifts that occur over time.

References

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