# Understanding and Using Boundries in NVOs



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## INTRODUCTION: A JIGSAW PUZZLE FOR BOUNDARIES IN NVOs

One of the most important characteristics of virtual and networked organizations is the facilitation of interactions across institutional boundaries. However, the facilitation of this cross-boundary interaction does not mean that these boundaries cease to exist altogether; they may change forms, but still maintain their function and importance, and should be taken into consideration both in theory and practice. The metaphor of a jigsaw puzzle highlights the significance of the boundaries for institutions.

In institutional entities, each sub-entity and/or connection can be seen as one of the individual pieces of a jigsaw puzzle that join to construct a whole structure or pattern. With regard to this; "it's not the subject of the picture, or the painter's technique, which makes a puzzle more or less difficult, but the greater or lesser subtlety of the way it has been cut; and an arbitrary cutting pattern will necessarily produce an arbitrary degree of difficulty" comments George Perec in his book, "Life, A User's Manual." The cutting pattern, the boundaries among the individual pieces, then defines the meaning of not only the pieces but also the whole frame that consists of these pieces.

Comprehending the boundaries among the individual pieces is important, especially, for understanding the relationships and interactions across boundaries. In fact, this comprehension of boundaries is especially necessary for identifying, distinguishing, and making sense of the individual pieces, which constitute the bigger picture. Recognizing the importance of comprehending the institutional boundaries, in this short article, we aim to highlight the role boundaries/borders play in NVOs with specific reference to the literature on seams, communities of practice (CoPs), "ba" and "ma."

## BACKGROUND

Concepts like assemblage and seams (Cooper, 1998), CoPs (Wenger, 1998), ba (Von Krogh, Ichijo, & Nonaka, 2000, 2001) and ma (Hayashi, 2004; Kerkhove, 2003)[1] are useful for the understanding of NVOs. Specifically, boundaries and in-betweenness with regard to these concepts will be discussed in this section.

### Assemblage and Seams

What Durkheim formalizes (1933) as the basis of society, the division of labor, is a production system designed for mass production (of identical items), which can be generally understood in terms of not only an assembly line but also a generalized process of assemblage. Assemblage is a parasite alternation, the "continuous flux in which the separate identities of the parts give way to a mutual coming *and* going, uniting *and* separating; and in which identities as self-contained units simply *semble*, seem, feign, pretend." Similarly, *semi*, "half of a whole that is the *same* as the other half," is divided same-ness, "as a parasitical alternation or mutuality *between* parts." Assemblages are constituted by *seams*, where parts come together and disperse at the *same* time, join and separate *sim*ultaneously in this world of the semi/same. Assembling, being between inside and outside, *seam* "insists on the essential self-*same*ness of space and time" and "has a double func-

tion": "it separates *and* joins *at the same time*... in *one and the same act.*" (Cooper, 1998, p. 108-116) Also, Ishii, Kobayashi and Arita (1994) identify temporal, spatial and functional seams, suggesting the development of seamless interfaces and environments that lead to augmented realities as an alternative to virtual ones. However, this interpretation considers seams as negative constraints to be disregarded, in contrast to a more positive interpretation as a permeable membrane (Cooper, 1998). In short, *seam* as temporal and spatial between-ness or boundary/border of assemblage is important to developing understanding for our *organized worlds*—less static, separate and self-contained; rather better at movement and transformation.

## Boundaries in CoPs and Ba

The comprehension of these boundaries is not an easy task. Inside an organization/institution, boundaries are the odd, unsafe places, away from the comforting center. These places are where extremes are experienced or can be experimented with, rather than where norms are practiced. Furthermore, boundaries are not always easy-to-perceive, and perceiving the limits they define may require risky experimenting, forcing or pushing from inside or outside. This necessity of risk-taking and not being afraid of being at odds with the comprehension of the boundaries generally can not be satisfied with ordinary organizational roles and attitudes, while, as Wenger (2000) discusses, the term boundary itself often has negative connotations because of its limitation for insiders and lack of access for outsiders.

Recently in organization and management studies, the concepts of 'Ba' (Nonaka & Konno, 1998; Nonaka et al., 2000a, etc.), network theory and 'CoP' (Wenger, 1998; Sawhney & Prandelli, 2000; Wenger, et al., 2002) are attracting attention. Various studies launched in the fields of knowledge management and learning organizations (Caribou, 2003; Creplet, 2000; Nonaka & Toyama, 2002) have contributed to develop the definitions, characteristics, conditions and management process of Ba, although few of them discuss the issue of the structure of Ba systematically, in spite of some inspirational ideas and arguments. Like Ba, network and community of practice also pay great attention to the importance of relationships among the actors in and across organizational contexts, and the interactive processes between the actors and their environments. More importantly, network theory and CoP theory have more systematic arguments about structure and the boundary effect, which can contribute to an understanding of the structure of Ba.

The notion of boundary is also part of the definition of the concept of Ba. This boundary is relatively variable and barely perceptible, and is as intangible as it is invisible, but it is real (Creplet, 2000). Ba sets boundaries for the interactions among members, but at the same time, it is open. Members bring their own contexts as they come and go, and this makes Ba evolve. (Nonaka et al., 2000). Therefore, managing boundaries is the key to generating and regenerating Ba. Moreover, Ba is in constant evolution and, according to each situation, has a complex and ever-changing nature. The Ba concept regards boundaries positively, but lacks systematic study and illumination.

The boundary effect in CoP, which was proposed by Wenger (2000), has been less valued than it deserves to be, although the very notion of community of practice indicates the essential existence of boundaries. According to Wenger (2000), boundaries are important to learning systems for two reasons: (1) they connect communities, (2) and they offer learning opportunities that are different from the ones offered by communities in their own right. Boundaries are both sources of new opportunities and potential difficulties, according to the cognitive distance between the CoP's own experience and the foreign competence. Therefore, in a learning system, communities and boundaries can be learning assets in complementary ways. Furthermore, learning at the boundaries requires some bridges for activating the connection, and a number of elements can be intentionally promoted in an effort to weave these systems more tightly together. Wenger (2000) proposes four types of bridges across boundaries: *people* who act as 'brokers' between communities (boundary spanners, roamers, outposts, pairs) *artifacts* (things, tools, terms, representations, etc.) that serve as 'boundary objects,' *interactions* among people from different communities of practice (boundary encounters, boundary practice, peripheries), and c*ross-disciplinary projects* (combining knowledge of multiple practices to get something done). Meanwhile, not all boundary processes create bridges that actually connect practices in deep ways. The actual boundary effects of these processes can be assessed along the following dimensions, as Wenger (2000) suggests: (1) coordination to discriminate what is really useful to the organization, (2) transparency to make easier the access to the boundary, (3) negotiability

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