Technology does not make cultural and business boundaries disappear simply because it exists.

The Myth of the Boundaryless Organization

A key issue for many businesses in the early 21st century is globalization. Firms are increasingly addressing the multifaceted challenges of global competition, global markets, and global coordination. Faced with such challenges, many firms are turning to collaborative technologies to enable new organizational forms in a bid to overcome the twin tyrannies of spatial and temporal dislocation that impede global reach. In this context, the notion of the boundaryless organization has become popular [1],

with collaborative technologies often seen as the means by which such obstacles can be overcome. Examples include the use of the Internet and intranets, electronic document exchange, and enterprise resource planning (ERP) software.

This article attempts to dispel the myth of the boundaryless organization and argues against technologically deterministic approaches to organizational change. Certainly, there is a need to make boundaries more permeable through dismantling structures, but we identify the need to form and reform boundaries that *enable* globalization. This article is written in the spirit of enabling the extension of global reach in a coordinated (although not necessarily preplanned) fashion. It is about experimentation, learning, and flexibility, and about the appropriate role for collaborative technologies in such contexts.

We offer two cases: The first relates to a major international bank, which made the false assumption that introducing collaborative technologies would lead to the dismantling of organizational boundaries that led to its failure to present a common front on a global scale. Instead, the initiative led to the creation of *electronic fences*. The second case shows evidence of experimentation, learning, and concern for the management and facilitation of collaboration across boundaries.

Case 1: Ebank

Ebank is a large bank with branches in over 70 countries worldwide. It has grown via the acquisition of independent local banks. While the bank marketed itself as "the global bank," each acquired bank continued to operate relatively independently, offering unique services and using different procedures. In 1996, Ebank lost the account of a key global customer because of its inability to provide a common service across the many countries in which it was operating. The solution envisaged by Ebank's senior executives was to implement a corporate

intranet. The strategic intent was to facilitate information and knowledge sharing across countries and departments which, it was assumed, would lead to the adoption of best practices and so stimulate the integration of procedures and services.

Unfortunately, each department within each country developed and implemented its own distinctive intranet independently, often making the same mistakes (for example, failing to involve users in deciding upon content). Rather than stimulate increased collaboration, the actual outcome was the reinforcement of existing intraorganizational boundaries with electronic fences. Ironically, intranet technology had exacerbated the problem of global fragmentation rather than reduce it. Moreover, even the independent intranets were used simply as repositories of basic data (for example, storing the company bus timetable).

Recognizing these problems, representatives from the banking and IT divisions from the major sites worldwide were brought together for a two-day workshop focused on coordinating this tangle of independent intranets. Unfortunately, the banking representatives claimed they were "too busy" to stay for more than the first day. On the second day, with only the IT representatives remaining, the focus was on technical solutions rather than on the substantive organizational and business issues that emerged on day one. They concluded that a *corporate portal* was the solution, allowing individuals to navigate through the myriad of independent intranet sites. Within 10 days of this workshop, six or seven corporate portals had been developed in different countries—again, each with different features and procedures!

In other words, the intranets at Ebank had not facilitated closer collaboration across the globally distributed organization. Country and departmental boundaries remained very much intact, if not reinforced, notwithstanding intranet implementation.

Case 2: Echem

Echem is a multinational chemical corporation serving industries in 102 different countries selling 1,000 different chemical products. The importance of knowledge sharing across this large corporation had long been recognized. Traditional methods—using experts who traveled around the globe troubleshooting and postal services for information provision and the communication of best practices—were slow and inefficient. Inspired by the vision of its respected chairman, Echem decided to design and implement a global forum (TechForum) based on intranet technology. Within this global forum there were industry directories, but all employees had access to everyone else since the idea was to promote knowledge sharing across Echem's global community. Initially, people responded to this system positively, but cultural and linguistic differences soon surfaced. Some employees found particular difficulties using English as the medium of communication. Management responded by establishing four independent regional forums, each with similar internal structures but differing in language and serving a specific geographical area. In other words, they created independent regional subforums—or boundaries—in the system.

This regionalization led to further difficulties, however. For example, solutions within each industry were often replicated across the different regional forums, leading to considerable overlap and potentially differing interpretations. As the discussions continued, the importance of addressing industry diversity in a global organization became increasingly apparent. As a result, management decided to reorganize the forums once more, this time into a set of global industry-based forums. Each of these was designed to provide access to a different industry, regardless of geographical location. Thus, an employee working in the leather industry in, say, South America could then ask for particular information needed in the leather forum instead of having to do so across the four regional forums.

The Echem intranet operated as a tool facilitating knowledge sharing across the global organization. This was stimulated by creating the role of intranet facilitator. These facilitators were experts in a given area and were responsible for ensuring the knowledge generated was accurate and queries were addressed

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promptly. When a request was left unanswered, a facilitator would pick it up, identify potential expert(s), and encourage them to respond to the question. Experts with related industrial experience could volunteer as section leaders to help answer any requests and prepare weekly summaries, storing knowledge generated as text files in the appropriate industry library.

While the intranet in Echem generated considerably more knowledge sharing than in Ebank, this was only achieved after intranet boundaries were purposefully created. The initial global forum linking everyone with everyone else was not effective, even with the expert facilitation provided. The formation and reformation of different online communities (first the regional and then the industry forums) contradicted the original philosophy of the boundaryless organization.

Lessons and Practical Implications

While there are many lessons to be drawn from these cases, we focus on two. First, the cases reinforce the lesson that collaborative technologies cannot singlehandedly facilitate global reach. We also learned the importance of a nontechnologically deterministic approach to organizational change. In Ebank the naive reliance on collaborative technologies alone to encourage boundary penetration to support global knowledge sharing was clearly ineffective and led to the reinforcement of existing boundaries. This is not surprising. As we have witnessed many times before, technology may be a necessary but not sufficient condition to effect change that brings business benefits. Those developing the sociotechnical approach back in the 1950s identified the need to align the technical and the social [4]. More recently, the MIT90s framework includes cultural issues (structure, management processes, and individuals/roles) as mediators between the strategy-technology relationship [3]. Cultural and social changes should accompany and complement technological changes for sustained and effective organizational change. These cultural issues were ignored in Ebank. The assumption that a global community could be created through the implementation of a collaborative technology was unrealistic.

Echem was not so naive and used expert facilitators, alongside the technology, to facilitate knowledge sharing and boundary penetration. While many companies have introduced intranets to encourage global knowledge sharing, few have augmented this initiative with expert facilitators. Companies need to recognize that knowledge sharing and boundary penetration are quintessentially human acts, albeit increasingly facilitated by collaborative technologies.

The second lesson relates to the need for boundary formation. Organizations should not set about the abolition of all intraorganizational boundaries myopically, as recognized by the more mature treatments of boundaryless organizations [1]. Knowledge sharing, at least on a global basis, depends not just on destroying boundaries but also on creating them. Boundaries are human edifices that can actually be useful. Companies need to identify meaningful communities where knowledge sharing will be relevant to the participants. The importance of identity and communities of practice [2] is obvious from the two case examples. In Ebank these communities emerged in the absence of any attempt to manage, while in Echem they evolved through a series of iterations to become industry-focused forums. We should not expect any particular arrangement of forums to be the final solution, however. It is likely that different bases for boundary creation will emerge as an organization faces different contingencies in the future. There is a need for a continual process of experimentation, learning, and adaptation. There is also an implication here for technology. While intranets can be used flexibly, other collaborative technologies, such as ERP systems, have built-in rigidity and hence may create barriers to boundary reformation. ■

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