

The birth of a theory: innovation at the boundaries

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When Tony asked me to write a foreword for his book, I had a number of options. I could praise him for outlining a history of learning theory as a story of ideas that focuses on actors who were carrying these ideas forward in various ways. I could congratulate him for taking the framework of social learning theory into a manufacturing context and exploring with wit and insight what learning meant to various groups. I could mention the way in which he used the production process at the site of his fieldwork as a metaphor for organizing his analysis.

All this would be true. But you can find it all out by reading the book.

I thought the most useful thing I could do is to add some personal touch to his history of learning theory by telling my side of the story of how the concept of communities of practice was born. Tony is already taking a personal approach to the history of ideas so adding a personal perspective would be in line with his writing. This is the early story as I remember it, told from my perspective. Other participants surely have their own versions. But this is the nature of stories: They represent the lived experience of protagonists and therefore have more than one face.

There are also intellectual reasons for telling this story. It illustrates some of the very processes the resulting theory is meant to account for—practices, communities, boundaries, and identities. And as a result, underlying this story is the outline of a theory of innovation based on communities of practice.

As Tony notes, the Institute for Research on Learning was started by the Xerox foundation in response to the 1983 “A Nation at Risk” report of the US Department of Education. John Seely Brown, head of the Xerox Palo Alto Research Center at the time, convinced then Xerox CEO David Kearns, who had publicly complained about US education, of the need for some fundamental research. Schools of education would focus on educational techniques, but it was also necessary to reconsider more fundamental assumptions about learning. In particular it was important to look at the wide variety of ways people learn successfully in daily life. The charter of the institute was to “rethink learning.”

Learning at the time was mostly the bailiwick of disciplines like psychology and artificial intelligence. But rethinking learning required a broader mix of perspectives. The institute brought together scholars from a variety of disciplines, including psychology, education, and computer science, but also anthropology, linguistics, literary criticism, physics, and mathematics.¹ We had fights. It never came to fists, but speaks did fly. The question of what is learning quickly came down to assumptions various disciplines were making about what a learner is and what might qualify as a meaningful account of something like human learning.

Imagine the following conversation between a computer scientist and an anthropologist:

“Your little book about your island and your tribes, it is good literature, but it is not science. You are just describing things, you do not provide any explanatory mechanisms about what is happening.”

¹ We did not have a philosopher among us, which is probably why we did not do justice to our intellectual debt to John Dewey, as Tony notes. But some researchers did try to articulate the ways in which Dewey and American pragmatism were precursors to what we were doing (Rogers et al.).

It is always hard to be told that what one does is not science in an academic context where science is revered. The anthropologist would then turn back and say something like:

“But your little program, you know, that models how kids learn subtraction, maybe you think you are really explaining a phenomenon because you can reproduce some observable data, but in fact, you have a model of learning in which there is no learner. There is nobody doing the learning.”

The concept of community of practice arose as a unit of analysis of learning in which we could find explanatory mechanisms, while placing at the core of our concerns the learner as a social being in the process of becoming. It enabled us to analyze learning as the negotiation of meaning as well as the acquisition of skills.

The story illustrates some key ingredients for innovation from a communities of practice perspective. The first one was the importance of boundaries. All communities of practice create boundaries, unavoidably, because joint learning creates a distinction between those who have participated in it and those who have not. Our disciplinary fights were boundary encounters among practices. At these boundaries, perspectives are dislocated and the competence one has developed in one's community does not function properly. Assumptions have to be reconsidered. This is what makes boundary encounters valuable learning opportunities – a potential source of radical innovation.

The second ingredient was the focus on a significant issue such as learning. The enterprise of rethinking learning was one we all believed in and cared about. Our shared commitment to it enabled us to keep engaging across disciplinary boundaries. One cannot overstate the importance of this joint enterprise—and the institute's commitment to it—as a container for the process. It was often quite uncomfortable and sometimes even painful. But only sustained engagement would allow us to create the necessary field for innovation.

Thirdly, the scholars who came together were steeped in their disciplines. Their identities were invested in their disciplines. They were successful scholars with deep expertise, not dilettantes leisurely exploring the landscape. Their commitment to their disciplines made for sparks. It brought about serious confrontations of ideas with a productive intensity that was unlikely to be resolved by a simple retreat into any discipline. In addition, these committed scholars steeped in their disciplines brought another important ingredient: the ability to recognize when something new came up that was worth paying attention to, something that their discipline would not consider old hat.

And finally, there were the young ones, people like me, who were not yet really committed to any discipline yet. We had an open identity and could embrace the boundary as a place to be. We did not have the judgment and the depth of our elders. We were apprentices. Each of us had a mentoring connection to someone. During this time I was primarily an apprentice of Jean Lave, the anthropologist with whom I co-authored the initial book on communities of practice. But beyond these individual relationships, we were mostly apprentices of this boundary encounter. These conceptual fights were the best intellectual schooling one could ever dream of. Everybody was transformed, elders and apprentices alike. But for us apprentices, this became a crucial formative experience. The boundary encounter became our practice.

Then the institute went on to function as a research institute. The fights gave way to more focused research projects. Still many of us kept working on the early questions. I certainly did. Today, the institute does not exist as such. But for me its early burst of innovation remains the core of my inquiry. It lives on in everything I do.

And now it lives on even further as I find myself invited to write a foreword for the work of a new generation ...