leading

sustaining

envisioning

adopting

embodying

offering

sensing

executing

THE INNOVATOR'S WAY

Essential Practices for Successful Innovation

PETER J. DENNING
ROBERT DUNHAM

foreword by John Seely Brown

The Innovator's Way

The Innovator's Way

Essential Practices for Successful Innovation

Peter J. Denning and Robert Dunham

To Dorothy
To Josephina

Contents

Foreword

The Social Life of Innovation

Oh no, I first thought when I opened my email from Peter Denning asking if I would consider doing a foreword for his forthcoming book on innovation. Without even looking at the book, my mind peppered me with questions. Does the world really need one more book talking about the secrets, challenges, or myths of innovation and why it is hard or easy? Another book on product innovation, or creativity and invention? Another book that sidesteps the more complex issue of institutional innovation?

But my hesitations were quickly put to rest. This is not "another book." It is refreshing and unique. Here is a book that understands that for something to qualify as innovation, a social or work practice has to be transformed by it. And for that to happen we must consider its social life, so to speak. The innovation has to be socialized; it must enable the community to appropriate it and in so doing will often lead the community to perceive the world in a new way. Invention is the fun part of innovation. The real work is in adoption, and this book tells us how to succeed at that. And it squarely faces the issues of institutional innovation.

As someone who has lived through many exciting adventures of innovation, I have come to realize just how hard this socialization process is. I was especially happy to see that this book actually went beyond mere description of the different kinds and different stages of innovation and focused on the generative practices. These practices guide our interactions with the community so that it comes to own and shape the innovation and enact its own uses and practices around it.

Although there were many things that I resonated to as I read this book, I will mention just three of them here, namely the practices of deep

sensing, envisioning, and offering. Deep sensing is closely aligned to making sense of one's own emotional reactions to a proposed new idea. I still find, even after years of being in the innovation game, that when someone approaches me with an idea that I haven't thought of, I can, at times, feel myself tightening up. Almost without fail, when that happens it is because the idea challenges something in my way of seeing the world. My first reaction is to dismiss it or find some kind of fault with it. Slowly, over the years, I have learned a new practice, a practice of noting when this happens, and then being careful not to say much and to let my whole body, not just my mind, absorb. I attempt not only to interpret the meaning of the innovation but also the meaning of my reaction to it. This takes time and often involves getting a good night's sleep. Only then do I try to articulate what might lie behind my first reaction.

This kind of sensing is, of course, just one step in the long process of helping a creator begin to mobilize the acceptance of an idea within an organization or community. The next step to acceptance and community engagement is providing a way for the community to envision how this innovation might affect them. To facilitate this, prototypes are crucial, prototypes with which a conversation can be initiated with the community. The prototypes can be physical or virtual mockups. They can be stories, videos, simulations, games. They can also be specs of a protocol or policy that can be used to request comments from the community, as was so successfully done with many of the protocols now constituting the Internet.

Z Smith, a physicist, did one of the more dramatic examples of this in my tenure at Xerox PARC in the early 1990s around a radical new kind of document machine that could scan, think/interpret, and print the document. Z's prototype not only demonstrated the vision, it also became a powerful offer. His machine's "thinking" was of many forms including summarizing, filing and distributing, and so on. It was a really cool, personal document machine that pushed the boundaries of what computing and imaging could do in those days. And it certainly pushed the concept of a printer or a copier to the extreme. We knew that getting this intelligent, multifunction device embraced within the culture of our copier company would be decidedly nontrivial. The company thought and breathed stand-alone, single-purpose devices, not devices that could actually interpret the documents they were being fed.

Z's idea for moving the internal community into adopting this idea was as ingenious as his invention. He built mockups of the machine and then designed, created, and videoed three short skits of different uses of

the device. Then, at the end of the video he added a fourth skit by a professional comedian that ended with the comedian asking viewers how they might use the capabilities of the device. We then invited senior officers of the company to watch the video and to storyboard out, with some artist help, how they might imagine using this device. The three main skits were meant to act as sort of an intuition pump that would orient viewers and help them internalize what the device might mean to them. The comedian segment was designed to give some time for viewers to internalize the prior skits by providing a fun but purposeful distraction. And it provided a nonthreatening transition for them to the activity of creating their own storyboard with which we could "finish" the video. Finally, of course, the viewers' own storyboards served as the basis of new stories that they could then tell others in the company.

Z titled the video "More Than a Box," which was both what the comedic skit was about but more importantly was meant to provide a strategic nudge, suggesting that a copier could be much more than just a copier. Indeed, it was meant to nudge the company into seeing that it could be reconstituted as more than just a copier company. It could start to reimagine itself not as a company that produced and sold "boxes" but as The Document Company with the realization that documents are living, social artifacts that touch us and therein create meaning.

Z's story beautifully illustrates a virtuoso performance of the envisioning and offering practices described in *The Innovator's Way*. The offer was successful. The Xerox company set up a division to manufacture and market Z's document machine.

This account is a small example of some of the things we did in order to create a new worldview of the company, for itself, and for the world outside. This is not to claim that these things always worked. They didn't. The full story could make a book, itself. But this anecdote reveals my own discovery of some of the practices articulated in *The Innovator's Way*. The generative practices that unfold in this book are real and important. They are what you will need to master in order to become a serial innovator.

John Seely Brown
Former chief scientist, Xerox Corporation, and director of Xerox Palo Alto Research Center (PARC)

Preface

No subject commands more attention than innovation in business, government, nonprofit, or volunteer organizations. Technology leaders invest billions in a never-ending search for new gadgets, devices, and systems. Business leaders proclaim innovation as a core competency. Government leaders sponsor research and foster economic climates for innovation. Social activists push for transformation of their communities or countries. Professionals see innovation as a way to gain a competitive edge in their jobs. Popular technology magazines annually venerate top innovators with special articles and profiles of the "Top 50" or "Top 100." The online bookstore Amazon.com lists over 9,300 printed books with "innovation" in their titles; innovation books are frequent bestsellers.

Why all this interest? We human beings are constantly changing. We turn from stagnation, run from boredom, jump at opportunities. What could be more natural than change?

Innovation is the art of getting people to adopt change. We are far from mastering it. Businesses report that success rates of innovation initiatives hover around an abysmal 4 percent. Is there any way to significantly raise our success rates and lower our expenses in creating innovations? Many have pursued this question but have found no systematic way to improve success rates.

Albert Einstein is often quoted for saying that insanity means doing the same thing over and over again, expecting different results. He also said that we cannot solve our problems with the same thinking we used when we created them. We need new thinking for innovation.

We have written this book because we have been part of a community that has been thinking quite differently about how to succeed at innovation. We have found a new answer to the puzzle. Our basic premise is that innovation is a personal skill that can be developed through practice

and extended into organizations, and that all successful innovation requires the skill.

It is easy to explain why innovation is hard: people are more resistant to change than they like to think. Changes alter value, status, and power. We embrace changes that increase our value, status, or power, and we resist changes that reduce our value, status, or power. Because of these mixed reactions in communities, innovators find it is a constant struggle to get others to adopt new ideas or methods. Adopters face risk, uncertainty, fracture of the familiar, incentives to preserve the status quo, and hard work to integrate the changes into their worlds. How can they be induced to do this?

Many leaders find themselves in a constant balancing act between resisting and embracing changes. Too much resistance, or even hesitation, can spell the end of a company. In *Creative Destruction* (2001), Richard Foster and Sarah Kaplan report that in 1987 only forty of the original Forbes 100 companies (from 1917) still existed, only eighteen remained in the top 100, and only two performed better than the stock market average over the seventy-year period. The new entrants to the Top 100 all offered innovations that most of the established companies could not match. In *The Innovator's Dilemma* (1997), Clayton Christenson discovered a pattern where the leaders of a company cannot decide when the time is right to respond to a low-end challenger. In *Competing for the Future* (1994), Gary Hamel and C. K. Prahalad described many world-leading companies that lost their ability to compete because they could not generate innovations. In *Warfighting and Disruptive Technologies* (2004), Terry Pierce showed the tension between conservatism and innovation in defense and security, a domain of high stakes and disastrous consequences for poor judgments.

The core of the work of innovation appears to be getting people to accept and implement change, and to sacrifice old, familiar ways in order to gain new ways. For success at innovation, we must we learn to do this well.

Most thinking about innovation is dominated by invention. To many, it seems that most innovations begin with a clever invention. It seems that to strengthen our ability to innovate, we need to strengthen our inventiveness by fostering climates in which creative, imaginative thinkers can flourish. What if the supposition that invention causes innovation is wrong? What if our low innovation success rate is tied to our lack of clear distinction between invention and innovation?