

P R O L O G U E

FROM BOXES TO LINES

1. *Out of clutter find simplicity.*
2. *From discord find harmony.*
3. *In the middle of difficulty lies opportunity.*

ALBERT EINSTEIN, HIS THREE RULES OF WORK

In writing this book, I felt that a historical perspective on business would provide an interesting and useful context for my arguments, especially for readers who are a bit vague on the past contributions of people like Frederick Taylor, W. Edwards Deming, and Dr. Michael Hammer. But as a colleague of mine once said to me, he has read so much about Taylor that he feels he can “claim him as a dependent on my taxes.” So it is with some trepidation that I go ahead with this Prologue. Yes, most of this is historical, but it provides the essential context for what comes next in business—an era of innovation such as we have never seen.

Although businesses over the years have used innovative approaches for improving their productivity, this has often been done at the expense of individual innovation. Innovation has been driven from the top, rather than being pervasive throughout the organization. The goal has been to create a well-oiled machine that turns employees into robots to remove all variability. To help illustrate what I mean, I find it useful to think of a business as being, quite simply, a pattern of boxes and lines. The “boxes” can be tasks, people, departments, computers, or units within a business. The “lines” are the interrelationships and dependencies that connect those boxes together. It seems to me that too often businesses have focused on the boxes rather than the lines. Remember the wall of Post-it Notes during the peak of reengineering? Remember the huge investments in computers that never paid off? Decades of new ideas for improvements have left many businesses tied up in knots.

One reason for this fragmentation is that organizational theories have often mirrored the science or technology of the day. The shift from an agrarian to an industrial economy, and the accompanying changes in technology and the way that products were manufactured, led to a focus on tasks, machines, and the things that make up machines, that is, what happens “inside the boxes.” It is not surprising that Frederick Taylor concentrated on improving human performance by dividing work into small, discrete sets of activities around the machines they were performed on. And only managers, the people with “intelligence,” designed these work activities. It was assumed that workers had neither the requisite intelligence nor the time, so they were told to get on with doing what they were told to do. This seemed appropriate at a time when the workforce was largely uneducated.

Then came the shift to the information age in the 1960s and 1970s, and computers focused on applications that processed information. But, unfortunately, computers can’t think, and therefore prescriptive solutions were developed so that computers could process information within clear boundaries. But this forced out innovation and led to a renewed focus on automating tasks, albeit the tasks were different. The organization of businesses naturally began to reflect this approach, leading to the 1990s era of “reengineering”—a very industrial, nuts-and-bolts term in itself. Business process reengineering (BPR), although focused on connections across functions, still maintained a box focus. In this case, the box was the process. The focus was still on the box, but more was on the information and the process within the box. And although processes are an important part of a business, they are only one dimension.

The current shift in technology is the most exciting yet—the convergence of the Internet, the World Wide Web, e-mail, telecommunications, and computer networks. And as a result, our business models are beginning to focus on the lines (i.e., interdependencies). This leads us into the era of collaboration, integration, and innovation that I will be exploring and advocating in this book. The key is not to use technology in isolation, but as a tool to connect the boxes.

The past 100 years of business management and technology have, for the most part, focused on automation, mechanization, and the routinization of work, at the expense of innovation. There has been too much focus on improving the boxes (processes, departments, individuals, computers, databases, etc.). Fortunately, we now are seeing a change.

As I said in the introduction, I am a jazz saxophonist. And the concept of lines versus boxes is exactly what jazz is all about. The key in jazz is to let each player (a “box”) express his or her own individuality through improvisation (a form of innovation) in the context of a simple chart comprised of chord structures and rhythm (the “lines”). There are few limits to what a jazz musician can do with his or her solo. The only “control” is the framework. The musician is given the freedom to express his or her own individuality. Jazz is very much about the musician, the human factor.

In the business world, we are now seeing the reintroduction of the human factor. This is a development that has evolved out of necessity. Today’s world is one of uncertainty, unpredictability, and change. Indeed, as it is often said, change is the only constant. And machines, computers, and prescriptive compositions do not afford companies the flexibility they need to survive and thrive. They may get to the top today with their best practices, great ideas, and what they consider to be innovative thinking. But their competitors are nipping at their heels and may leapfrog over them tomorrow. Companies have begun to realize that they need innovative business models that leverage technology so that their people can make the best use of their innate creativity. This means focusing on the lines (flows, coordination, dependencies) of the business that allow for innovation and adaptability to emerge from within and across the boxes.

This is a challenging proposition for most companies. This requires no less than having good jazz scores (operating models and processes), played by good jazz musicians (employees), playing high-quality instruments (technology) in the right way, so that the audience (customer) enjoys the performance. And central to all of this is improvisation (innovation). Musicians read a score. But when they come to play that score they improvise their solo parts, partly because they feel that it improves the music, partly

because they are responding to the improvisation of someone else within the group, and partly because they are responding to audience reaction. Once this procedure has begun, it can take the music far away from the original score and send it on a journey that was never dreamed of by its composer. This is the form of perpetual innovation that companies need in order to evolve continuously to meet customer and market needs in this age of change.

My suggestion, and the theme of this book, is that companies must find a way to achieve 24/7 innovation—all day, every day—in order to survive in an increasingly daunting competitive environment. Tomorrow's companies will need pervasive innovation—creative thinking everywhere, by everyone. We are witnessing the start of the next evolutionary phase of business innovation.