

The Future of Work

**How the New Order of Business
Will Shape Your Organization,
Your Management Style, and Your Life**

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Harvard Business School Press
Boston, Massachusetts

*For Robert, for Laura,
and especially for Joan*

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I

The Coming Revolution

CHAPTER ONE

A Time to Choose

IMAGINE IT'S 1795, and you're a shopkeeper somewhere in Spain. You no longer believe, as the ancient Egyptians did, that your king is literally a god living on earth. But you still believe that he has a divine right to rule over you. You can't imagine any country being governed well without a king who is responsible for the protection and control of his subjects.

You have heard of the strange rebellion in North America in which the British colonists claimed that they could govern themselves without any king at all. You've also heard about the recent bloodshed in France that ended with a group of so-called revolutionaries killing their king, replacing the government, and destroying, almost overnight, so many good things. These events seem to you like profound mistakes, foolhardy experiments that are bound to fail.

It just doesn't make sense to say—as the democratic revolutionaries do—that people can govern themselves. That's a contradiction in terms, like saying that children could raise themselves or farm animals could run a farm. People can try it, you think, but it certainly couldn't work as well as having a wise and just king.

Well, of course, today we know the outcome of those strange democratic experiments. They worked. Really well. Over the past two hundred years, democratic ideas have triumphed in Europe, America, and many other parts of the world. While democratic governments have not been established everywhere, their economic, political, and military successes have far surpassed what almost anyone would have predicted in the late 1700s. And, perhaps more important, our whole way of thinking about society—the role of government, the rights of

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people, the importance of public opinion—has profoundly changed, even in countries that don't themselves have democratic governments.

Now, we are in the early stages of another revolution—a revolution in business—that may ultimately be as profound as the democratic revolution in government. The new revolution promises to lead to a further transformation in our thinking about control: Where does power come from? Who should wield it? Who is responsible? Once again, the result will be a world in which people have more freedom. A world in which power and control in business are spread more widely than our industrial-age ancestors would have ever thought possible. A world in which more and more people are at the center of their own organizations.

New information technologies make this revolution possible. Dispersed physically but connected by technology, workers are now able, on a scale never before even imaginable, to make their own decisions using information gathered from many other people and places. The real impetus for the transformation in business will not come from the new technologies, however. It will come from our own innate desires—for economic efficiency and flexibility, certainly, but also for noneconomic goals like freedom, personal satisfaction, and fulfillment.

And that leads to one of the main messages of this book: For the first time in history, technologies allow us to gain the economic benefits of large organizations, like economies of scale and knowledge, without giving up the human benefits of small ones, like freedom, creativity, motivation, and flexibility.

This revolution has already begun. We saw its harbingers in the final decades of the twentieth century in talk about empowering workers, outsourcing almost everything, and creating networked, or virtual, corporations. We saw it in the premature—but not entirely unwarranted—enthusiasm for new ways of doing business in the dot-com bubble and in the slogan “The Internet changes everything.” We see it all around us today in the increasing choices people have in how and where they work.

But, like the loyal subjects of Spain's King Carlos IV in 1795, most of us don't yet understand how far-reaching these changes may eventually be. We still assume, without even really thinking about it, that someone needs to be responsible and accountable in business. We assume that the managers of well-run companies should always be in

control of what's happening. We assume that power should always come from the top of an organization and be delegated down.

This book is about the underlying technological and economic forces that are making such beliefs less useful and less valid. It's about the new ways of organizing work that are becoming possible: what they will look like, where they will happen, where they won't. It's about broadening your view of management, stretching the limits of what you think is possible. And it's about the choices these changes give you—and all of us—to shape a new world.

What Will These New Ways of Organizing Work Look Like?

There are many buzzwords for describing the kinds of organizations this revolution will make more common. *Self-organizing*, *self-managed*, *empowered*, *emergent*, *democratic*, *participative*, *people-centered*, *swarming*, and *peer-to-peer* are just a few of them.¹ The word I'll use most often in this book to encapsulate all these different terms is a simple and timeless one: *decentralized*.

If you are like many people in business today, when you hear the word *decentralized*, you assume that it just means delegating more power to lower-level managers inside traditional organizations—letting, for instance, divisional vice presidents make product strategy decisions that used to be made by the CEO. But this limited kind of decentralization barely scratches the surface of what's possible. Let's define decentralization as the *participation of people in making the decisions that matter to them*. In this sense, decentralization means roughly the same thing as freedom. From this point of view, decentralization offers a much wider range of possibilities (figure 1-1).

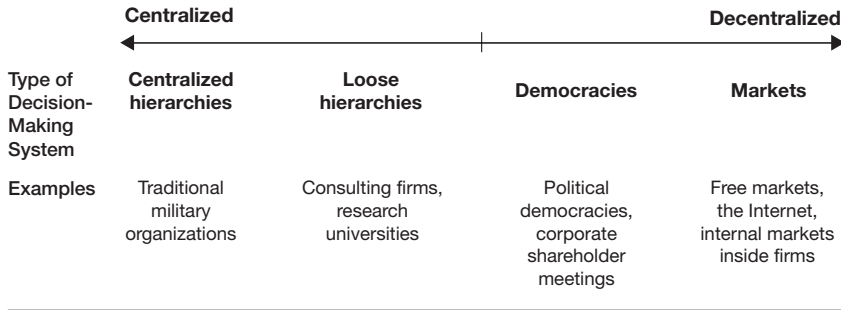
At the far left of the continuum are highly centralized organizations—those in which all important decisions are made by a few high-level decision makers (e.g., traditional military organizations). As you progress along the continuum, from loose hierarchies to democracies to markets, the amount of freedom people have in decision making increases.

As we'll see in chapter 4, some companies today already have *loose hierarchies*, in which considerable decision-making authority is delegated to very low organizational levels. Many management consulting

FIGURE 1-1

The Decentralization Continuum

Organizations can be placed on a continuum based on how much people participate in making decisions that matter to them.



firms, for instance, let the individual partners and consultants assigned to a project make almost all its operational decisions. The AES Corporation, one of the world’s largest electric power producers, allows its low-level workers to make critical multimillion-dollar decisions about things like acquiring new subsidiaries. In an even more extreme example, one of the most important computer operating systems in the world today—Linux—was written by a loosely coordinated hierarchy of thousands of volunteer programmers all over the world.

When most people think about decentralization, they stop at loose hierarchies. That is, they think of decentralization as the delegation of many decisions to lower levels in hierarchies. But what if power were not delegated to lower levels? What if, instead, it originated there? How much energy and creativity might be unlocked if all the members of an organization felt in control?

The right half of the continuum shows what this more extreme kind of freedom looks like in business. As we’ll see in chapter 5, some businesses already act like miniature *democracies*, in which the decisions are made by voting. Many good managers today, for instance, informally poll their employees about key decisions, and some companies have made the formal polling of workers a routine part of their management. In a few cases, such as the Mondragon Cooperative Corpora-

tion in Spain, the workers own the company and, therefore, can elect the equivalent of a board of directors and vote on other key issues.

What if companies began to take this notion of democratic decision making even further? What if professional partnerships and other worker-owned businesses allow workers to elect (and fire) their own managers at every level, not just at the top? And what if these employee-owners could vote on any other important question on which they wanted to express their opinion?

The most extreme kind of business freedom occurs in *markets* because, in this kind of organization, no one is bound by a decision to which he or she doesn't agree. In a pure market, for instance, no one "on top" delegates to the different players the decisions about what to buy and sell. Instead, all the individual buyers and sellers make their own mutual agreements, subject only to their own financial constraints, their abilities, and the overall rules of the market.

As we'll see in chapter 6, many companies already use this form of organization by outsourcing activities they used to perform inside—from manufacturing to sales to human resource management. Taken to its limit, outsourcing can render large companies obsolete. Flexible webs of small companies or even temporary combinations of electronically connected freelancers—e-lancers, as I call them—can sometimes do the same things big companies do, but more effectively. Such webs are already common in the film industry, for example, where a producer, a director, actors, cinematographers, and others come together for the purpose of making one movie and then disband and regroup in different combinations to make others.

In other cases, as we'll see in chapter 7, you can enjoy many of the benefits of markets *inside* the boundaries of large companies. For example, some companies are experimenting with internal markets in which employees "buy" and "sell" products and services among themselves; their internal trading becomes another way of allocating resources for the company as a whole. One semiconductor company is considering letting individual salespeople and plant managers trade products with one another in an internal electronic market. This freedom gives the plants immediate and dynamic feedback about which products to make each day, and it helps the salespeople continually fine-tune the prices they offer their customers. Hewlett-Packard is

looking at creating an internal labor market to determine which experts on its staff will work on which projects.

To understand why such decentralized approaches to management are likely to happen more often in the future, you need to understand what leads to centralization and decentralization in the first place.

Why Is This Happening?

Many factors affect how and where decisions are made in a business or, for that matter, in any organization. Here are just a few of the most common: Who already has the information needed to make good decisions? Who already has the power to make the decisions, and whom do these people trust to make decisions on their behalf? Who are the potential decision makers, and what are their capabilities and motivations? Within the company and the country, what are the cultural assumptions about what kinds of people should make decisions? The answers to these questions vary widely from situation to situation, and they change for many different reasons. Overall, though, they aren't changing dramatically in any one direction.

There is, however, another crucial factor that affects where decisions are made in businesses, and this factor is changing dramatically almost everywhere. In fact, this same factor has historically been implicated, time after time, in some of the most important changes in where decisions are made—not just in businesses, but in entire societies.

What is this factor?

It's the cost of communication.

Back when the only form of communication was face-to-face conversation, our distant hunting-and-gathering ancestors organized themselves in small, egalitarian, decentralized groups called bands. Over many millennia, as hunting and gathering gave way to agriculture, and as our ancestors learned to communicate over long distances more efficiently—by writing—they were able to form larger and larger societies ruled by kings, emperors, and other central rulers. These new societies had many economic and military advantages over the hunting-and-gathering bands, but their members had to give up some of their freedom—sometimes a great deal of it—to obtain those benefits.

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Then, only a few hundred years ago, our ancestors invented a new communication technology, the printing press, which reduced even further the costs of communicating to large numbers of people. This breakthrough allowed people to reverse their millennia-long march toward greater centralization. Soon after the printing press came into wide use, the democratic revolution began. Ordinary people—now much better informed about political matters—came to have more say in their own government than they had had since the hunting-and-gathering days.

Was the declining cost of communication the only factor that caused all these societal changes? Of course not. Each change arose from complex combinations of forces. For instance, our human desires for individual freedom—and for the motivation and flexibility that often accompany individual freedom—were critical. But, as we'll see in chapter 2, the declining costs of communication allowed by new information technologies like writing and printing played a key role in enabling each of these changes. Remarkably, the same underlying factor is implicated in both the rise of kingdoms and the rise of democracies.

Even more remarkably, this same pattern of change appears to be repeating itself now—at a much faster rate—in the history of business organizations. Chapter 3 explains that throughout most of history, up until the 1800s, most businesses were organized as small, local, often family affairs, similar in many ways to the early bands of hunters and gatherers. But by the 1900s, new communication technologies like the telegraph, the telephone, the typewriter, and carbon paper finally provided enough communication capacity to allow businesses to grow and centralize on a large scale, as governments had begun to do many millennia earlier.² By taking advantage of economies of scale and knowledge, these large business “kingdoms” achieved an unprecedented level of material prosperity.

As a result of this massive—and successful—move toward centralized business organizations in the twentieth century, many of us still unconsciously associate success in business with bigness and centralization. But to achieve the economic benefits of bigness, many of the individual workers in large companies had to give up some of the freedom and flexibility they had enjoyed in the farms and small businesses of the previous era.

New information technologies can be used to further the trend of the last century—the creation of ever larger and more centralized business

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kingdoms. And some important business changes in the future will no doubt take that path, as ever larger groups of people are integrated to take advantage of economies of scale or knowledge.

But there is a strong counterforce. Just as new technologies helped spur the rise of democracies, reversing the long trend toward centralization in societies, today's technological advances are beginning to spur a similar reversal in business. With new communication technologies like e-mail, instant messaging, and the Internet, it is now becoming economically feasible—for the first time in history—to give huge numbers of workers the information they need to make more choices for themselves. Today, many more people in business can have the kinds of freedom that used to be common only in small organizations. And that can be very good news for both productivity and quality of life. When people are making their own decisions, for instance, rather than just following orders, they often work harder and show more dedication and more creativity.

Even as they encourage greater freedom, however, these new decentralized businesses can escape the limitations that hampered small, isolated businesses in the past. Because the new organizations have access to the best information available anywhere in the world, they retain many of the advantages of large organizations. If there are economies of scale in parts of their business, for instance, they can find the best suppliers in the world to fulfill their needs for those raw materials and components. They can also find customers all over the world, using electronic reputation systems to establish credibility with them. And if someone on the other side of the globe has figured out how to do a particular activity or process in a better way, the businesses can tap into that person's expertise, too.

This kind of decentralization doesn't work well everywhere. Chapter 8 will discuss some factors that can help you decide whether a specific situation is ripe for decentralization. If, for example, you have a strong need for economies of scale or rapid decision making, you might not want to abandon your centralized structure. But in all the places where qualities like motivation, flexibility, and creativity are important to a business—and that's *lots* of places—decentralization will become increasingly desirable in the coming decades. Centralized management isn't going away, but its market share is likely to decrease.

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Even where decentralization is desirable, however, the changes won't all happen overnight. Just as the democratic transformation of societies evolved in fits and starts over many decades, the changes in business will take many years to play out. And every time there is a setback in one place, or a failure to move forward somewhere else, some people will say that things aren't going to change after all. When managers overinvested in e-business, and the speculative new-economy bubble burst, many assumed that the old economy had won and that we were going back to business as usual.

But the relentless declines in the cost of communication mean that there will be ever more opportunities for decentralization. The fundamental changes in the economics of communication and decision making will continue working their way through the economy, company after company, industry after industry, for many, many years to come.

What Does This Mean for You?

If decentralization becomes increasingly desirable in business, then we will need to manage in new ways. But most of us still have—deep in our minds—models of management based on the classic, centralized philosophy of command and control. To be successful in the world we're entering, we will need a new set of mental models. While these new models should not exclude the possibility of commanding and controlling, they need to encompass a much wider range of possibilities—both centralized and decentralized.

Here is one way of summarizing this new perspective: We need to shift our thinking from command-and-control to coordinate-and-cultivate. As chapter 9 explains, when you *coordinate*, you organize work so that good things happen, whether you are in control or not. Some kinds of coordination are centralized; others are decentralized. But either way, coordination focuses on the activities that need to be accomplished and the relationships among them. We'll see, for instance, how looking at the “deep structure” of business activities can help you think of innovative new ways to coordinate them. We'll also see how rigid standards in one part of a business system can sometimes—paradoxically—allow much more flexibility and freedom in other parts of the same system.