

PETER F. DRUCKER

**Management
Challenges
for the
21st Century**

"Invaluable advice for building a business bridge to the 21st century."

—Kirkus Reviews

Management Challenges for the 21st Century

PETER F. DRUCKER

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Introduction:

Tomorrow's "Hot" Issues

Where, readers may ask, is the discussion of COMPETITIVE STRATEGY, of LEADERSHIP, of CREATIVITY, of TEAMWORK, of TECHNOLOGY in a book on MANAGEMENT CHALLENGES? Where are the "HOT" ISSUES OF TODAY? But this is *the very reason* why they are *not* in this book. It deals exclusively with TOMORROW'S "Hot" Issues—the crucial, central, life-and-death issues that are *certain* to be the major challenges of tomorrow.

CERTAIN? Yes. For this is not a book of PREDICTIONS, not a book about the FUTURE. The challenges and issues discussed in it are already with us in every one of the developed countries and in most of the emerging ones (e.g., Korea or Turkey). They can already be identified, discussed, analyzed and prescribed for. Some people, someplace, are already working on them. But so far very few organizations do, and very few executives. Those who do work on these challenges today, and thus prepare themselves and their institutions for the new challenges, will be the leaders and dominate tomorrow. Those who wait until these challenges have indeed become "hot" issues are likely to fall behind, perhaps never to recover.

This book is thus a *Call for Action*.

These challenges are not arising out of today. THEY ARE DIFFERENT. In most cases they are at odds and incompatible with what is accepted and successful today. We live in a period of PROFOUND TRANSITION—and the changes are more radical perhaps than even those that ushered in the "Second Industrial Revolution" of the middle of the 19th century, or the structural changes triggered by the Great Depression and the Second World War. READING this book will upset and disturb a good many people, as WRITING it disturbed me. For in many cases—for example, in the challenges inherent in the DISAPPEARING BIRTHRATE in the developed countries, or in the challenges to the individual, and to the employing organization, discussed in the final chapter on MANAGING ONESELF—the new realities and their demands require a REVERSAL of policies that have worked well for the last century and, even more, a change in the MINDSET of organizations as well as of individuals.

This is a MANAGEMENT BOOK. It intentionally leaves out BUSINESS CHALLENGES—even very important ones such as the question of whether the EURO will displace the U.S. dollar as the world's key currency, or what will SUCCEED the 19th century's most successful economic inventions, the commercial bank and the investment bank. It intentionally does not concern itself with ECONOMICS—even though the basic MANAGEMENT changes (e.g., the emergence of knowledge as the economy's key resource) will certainly necessitate radically new economic theory and equally radically new economic policy. The book does not concern itself with politics—not even with such crucial questions as whether Russia can and will recover as a political, military and economic power. It sticks with MANAGEMENT ISSUES.

There are good reasons for this. The issues this book discusses, the new social, demographic and economic REALITIES, are not issues that GOVERNMENT can successfully deal with. They are issues

that will have profound impact on politics; but they are not political issues. They are not issues the Free Market can deal with. They are also not issues of ECONOMIC THEORY or even of ECONOMIC POLICY. They are issues that only MANAGEMENT and the INDIVIDUAL knowledge worker, professional or executive can tackle and resolve. They are surely going to be *debated* in the domestic politics of every developed and every emerging country. But their resolution will have to take place within the individual organization and will have to be worked out by the individual organization's MANAGEMENT—and by every single individual knowledge worker (and especially by every single executive) within the organization.

A great many of these organizations will, of course, be businesses. And a great many of the individual knowledge workers affected by these challenges will be employees of business or working with business. Yet this is a MANAGEMENT book rather than a BUSINESS management book. The challenges it presents affect ALL organizations of today's society. In fact, some of them will affect nonbusinesses even more, if only because a good many nonbusiness organizations—the university, for instance, or the hospital, let alone the government agency—are more rigid and less flexible than businesses are, and far more deeply rooted in the concepts, the assumptions, the policies of yesterday or even, as are universities, in the assumptions of the day before yesterday (i.e., of the 19th century).

How to use the book? I suggest you read a chapter at a time—they are long chapters. And then first ask: “What do these issues, these challenges MEAN for our organization and for me as a knowledge worker, a professional, an executive?” Once you have thought this through, ask: “What ACTION should our organization and I, the individual knowledge worker and/or executive, take to make the challenges of this chapter into OPPORTUNITIES for our organization and me?”

AND THEN GO TO WORK!

*Peter F Drucker
Claremont, California
New Year's Day 1999*

1

Management's New Paradigms

Why Assumptions Matter • Management Is *Business* Management • The *One Right* Organization
• The *One Right* Way to Manage People • Technologies and End-Users Are Fixed and Given •
Management's Scope Is *Legally* Defined • Management's Scope Is *Politically* Defined • The
Inside Is Management's Domain

Introduction

Why Assumptions Matter

BASIC ASSUMPTIONS ABOUT REALITY are the PARADIGMS of a social science, such as management. They are usually held subconsciously by the scholars, the writers, the teachers, the practitioners in the field. Yet those assumptions largely determine what the discipline—scholars, writers, teachers, practitioners—assumes to be REALITY.

The discipline's basic assumptions about reality determine what it focuses on. They determine what the discipline considers "facts," and indeed what it considers the discipline itself to be all about. The assumptions also largely determine what is being disregarded in a discipline or is being pushed aside as an "annoying exception." They decide both what in a given discipline is being paid attention to and what is neglected or ignored.

A good example is what happened to the most insightful of the earlier management scholars: Mary Parker Follett (1868–1933).^{*} Because her assumptions did not fit the realities which the budding discipline of management assumed in the 1930s and 1940s, she became a "nonperson" even before her death in 1932, with her work practically forgotten for twenty-five years or more. And yet we now know that her basic assumptions regarding society, people and management were far closer to reality than those on which the management people then based themselves—and still largely base themselves today.

Yet, despite their importance, the assumptions are rarely analyzed, rarely studied, rarely challenged—indeed rarely even made explicit.

For a social discipline such as management the assumptions are actually a good deal more important than are the paradigms for a natural science. The paradigm—that is, the prevailing general theory—has no impact on the natural universe. Whether the paradigm states that the sun rotates around the earth or that, on the contrary, the earth rotates around the sun has no effect on sun and earth. A natural science deals with the behavior of OBJECTS. But a social discipline such as management deals with the behavior of PEOPLE and HUMAN INSTITUTIONS. Practitioners will therefore tend to act and to behave as the discipline's assumptions tell them to. Even more important, the reality of a natural science, the physical universe and its laws, do not change (or if they do only over eons rather than over centuries, let alone over decades). The social universe has no "natural laws" of this kind. It is thus subject to continuous change. And this means that assumptions that were valid yesterday can become invalid and, indeed, totally misleading in no time at all.

Everyone these days preaches the team as the "right" organization for every task. (I myself began to preach teams as early as 1954 and especially in my 1973 book *Management: Tasks, Responsibilities, Practices*.) Underlying the present orthodoxy regarding teams is a basic assumption held practically by all management theorists and by most practitioners since the earliest days of thinking about organization, that is, since Henri Fayol in France and Walter Rathenau in Germany around 1900: There is—or, at least, there MUST be—ONE right organization. And what matters most is not whether the team is indeed "the answer" (so far there

is not too much evidence for it), but, as will be discussed a little later, that the basic assumption of the one right organization is no longer tenable.

What matters most in a social discipline such as management are therefore the basic assumptions. And a CHANGE in the basic assumptions matters even more.

Since the study of management first began—and it truly did not emerge until the 1930s—TWO SETS of assumptions regarding the REALITIES of management have been held by most scholars, most writers and most practitioners:

One set of assumptions underlies the DISCIPLINE of management:

1. Management is *Business Management*.
2. There is—or there must be—ONE right *organization structure*.
3. There is—or there must be—ONE right way to *manage people*.

Another set of assumptions underlies the PRACTICE of Management:

1. Technologies, markets and end-uses are *given*.
2. Management's scope is *legally* defined.
3. Management is internally focused.
4. The economy as defined by national boundaries is the “ecology” of enterprise and management.

For most of this period—at least until the early 1980s—all but the first of these assumptions were close enough to reality to be operational, whether for research, for writing, for teaching or for practicing management. By now all of them have outlived their usefulness. They are close to being caricatures. They are now so far removed from actual reality that they are becoming obstacles to the Theory and even more serious obstacles to the Practice of management. Indeed, reality is fast becoming the very opposite of what these assumptions claim it to be. It is high time therefore to think through these assumptions and to try to formulate the NEW ASSUMPTIONS that now have to inform both the study and the practice of management.

I

Management Is Business Management

For most people, inside and outside management, this assumption is taken as self-evident. Indeed management writers, management practitioners and the laity do not even hear the word “management”; they automatically hear BUSINESS MANAGEMENT.

This assumption regarding the universe of management is of fairly recent origin. Before the 1930s the

few writers and thinkers who concerned themselves with management—beginning with Frederick Winslow Taylor around the turn of the century and ending with Chester Barnard just before World War II—all assumed that business management is just a subspecies of general management and basically no more different from the management of any other organization than one breed of dogs is from another breed of dogs.

The first *practical* application of management theory did not take place in a business but in nonprofits and government agencies. Frederick Winslow Taylor (1856–1915), the inventor of “Scientific Management,” in all probability also coined the terms “Management” and “Consultant” in their present meaning. On his calling card he identified himself as “Consultant to Management”—and he explained that he had intentionally chosen these new and strange terms to shock potential clients into awareness of his offering something totally new. But Taylor did not cite a business but the nonprofit Mayo Clinic as the “perfect example” of “Scientific Management” in his 1912 testimony before the Congress which first made the United States management-conscious. And the most publicized application of Taylor’s “Scientific Management” (though aborted by union pressure) was not in a business but in the government-owned and government-run Watertown Arsenal of the U.S. Army.

The first job to which the term “Manager” in its present meaning was applied was not in business. It was the City Manager—an American invention of the early years of the century. The first conscious and systematic application of “management principles” similarly was not in a business. It was the reorganization of the U.S. Army in 1901 by Elihu Root (1845–1937), Theodore Roosevelt’s Secretary of War.

The first Management Congress—Prague in 1922—was not organized by business people but by Herbert Hoover, then U.S. Secretary of Commerce, and Thomas Masaryk, a world-famous historian and the founding President of the new Czechoslovak Republic. And Mary Parker Follett, whose work on Management began at roughly the same time, never differentiated between business management and nonbusiness management. She talked of the management of organizations, to all of which the same principles applied.

What led to the identification of Management with Business Management was the Great Depression with its hostility to business and its contempt for business executives. In order not to be tarred with the business brush, management in the public sector was rechristened “Public Administration” and proclaimed a separate discipline—with its own university departments, its own terminology, its own career ladder. At the same time—and for the same reason—what had begun as a study of management in the rapidly growing hospital (e.g., by Raymond Sloan, the younger brother of GM’s Alfred Sloan) was split off as a separate discipline and christened “Hospital Administration.”

Not to be called “management” was, in other words, “political correctness” in the Depression years.

In the postwar period, however, the fashion turned. By 1950 BUSINESS had become a “good word”—largely the result of the performance during World War II of American *business* management. And then very soon “business management” became “politically correct” as a field of study, above all. And ever since, management has remained identified in the public mind as well as in academia with “business management.”

Now, however, we are beginning to unmake this sixty-year-old mistake—as witness the renaming of so many “business schools” into “schools of management,” the rapidly growing offerings in

“nonprofit management” by these schools, the emergence of “executive management programs” recruiting both business and nonbusiness executives or the emergence of Departments of “Pastoral Management” in divinity schools.

But the assumption that Management is Business Management still persists. It is therefore important to assert—and to do so loudly—that Management is NOT Business Management—any more than, say, Medicine is Obstetrics.

There are, of course, differences in management between different organizations—Mission defines Strategy, after all, and Strategy defines Structure. There surely are differences between managing a chain of retail stores and managing a Catholic diocese (though amazingly fewer than either chain stores or bishops believe); between managing an air base, a hospital and a software company. But the greatest differences are in the terms individual organizations use. Otherwise the differences are mainly in application rather than in principles. There are not even tremendous differences in tasks and challenges. The executives of all these organizations spend, for instance, about the same amount of their time on people problems—and the people problems are almost always the same. Ninety percent or so of what each of these organizations is concerned with is generic. And the differences in respect to the last 10 percent are no greater between businesses and nonbusinesses than they are between businesses in different industries, for example, between a multinational bank and a toy manufacturer. In every organization—business or nonbusiness alike—only the last 10 percent of management has to be fitted to the organization’s specific mission, its specific culture, its specific history and its specific vocabulary.

That Management is not Business Management is particularly important as the growth sector of a *developed society* in the 21st century is most unlikely to be business—in fact, business has not even been the growth sector of the 20th century in developed societies. A far smaller proportion of the working population in every developed country is now engaged in economic activity, that is, in “business,” than it was a hundred years ago. Then virtually everybody in the working population made his or her living in economic activities (e.g., farming). The growth sectors in the 20th century in developed countries have been in “nonbusiness”—in government, in the professions, in health care, in education. As an employer and a source of livelihood business has been shrinking steadily for a hundred years (or at least since World War I). And insofar as we can predict, the growth sector in the 21st century in developed countries will not be “business,” that is, organized *economic* activity. It is likely to be the nonprofit social sector. And that is also the sector where management is today most needed and where systematic, principled, theory-based management can yield the greatest results the fastest.

The first Conclusion of this analysis of the ASSUMPTIONS that must underlie Management to make it productive both its study and its practice is therefore:

Management is the specific and distinguishing organ of any and all organizations.

Concern with management and its study began with the sudden emergence of large organizations—business, governmental civil service, the large standing army—which was the novelty of late-19th-century society.

And from the very beginning more than a century ago, the study of organization has rested on one assumption:

There is—or there must be—one right organization.

What is presented as the “one right organization” has changed more than once. But the search for the one right organization has continued and continues today.

Organization structure in business was first tackled in France around the turn of the century, by Henri Fayol (1841–1925), the head of one of Europe’s largest but also totally disorganized enterprises, a coal-mining company. (He did not, however, publish his book until 1916.) Practitioners were also the first ones concerned with organization in the United States and at about the same time: John J. Rockefeller, Sr.; J. P. Morgan, and especially Andrew Carnegie (who still deserves to be studied and who had the most lasting impact). A little later Elihu Root applied organization theory to the U.S. Army, as already mentioned—and it is hardly coincidence that Root had been Carnegie’s legal adviser. At the same time, Georg Siemens (1839–1901), the founder in 1870 of the Deutsche Bank, used (around 1895) the organization concepts of his friend Fayol to save the rapidly floundering Siemens Electric Company that his cousin Werner Siemens (1816–1892) had founded but had left leaderless at his death.

Yet the need for organization structure was by no means obvious to everybody in these early years.

Frederick Winslow Taylor did not see it at all. Until his death he wrote and talked of “the owners and their helpers.” And it was on this concept, that is, on a non-structure, that Henry Ford (1863–1947), up to the time of his death, tried to run what for many years (until the late 1920s) was the world’s largest manufacturing company.

It was World War I that made clear the need for a formal organization structure. But it was also World War I that showed that Fayol’s (and Carnegie’s) functional structure was not the one right organization. Immediately after World War I first Pierre S. Du Pont (1870–1954) and then Alfred Sloan (1875–1966) developed Decentralization. And now, in the last few years, we have come to tout the “Team” as the one right organization for pretty much everything.

By now, however, it should have become clear that there is no such thing as the one right organization. There are only organizations, each of which has distinct strengths, distinct limitations and specific applications. It has become clear that organization is not an absolute. It is a *tool* for making people productive in working together. As such, a given organization structure fits certain tasks in certain conditions and at certain times.

One hears a great deal today about “the end of hierarchy.” This is blatant nonsense. In any institution there has to be a final authority, that is, a “boss”—someone who can make the final decisions and whom one can expect them to be obeyed. In a situation of common peril—and every institution is likely to encounter it sooner or later—survival of all depends on clear command. If the ship goes down, the captain does not call a meeting, the captain gives an order. And if the ship is to be saved, everyone must obey the order, must know exactly where to go and what to do, and do it without “participation” or argument. “Hierarchy,” and the unquestioning acceptance of it by everyone in the organization, is the only hope in a crisis.

Other situations within the same institution require deliberation. Others still require teamwork—and so on.

Organization Theory assumes that institutions are homogeneous and that, therefore, the entire enterprise should be organized the same way.

Fayol assumed a “typical manufacturing enterprise.” Alfred Sloan in the 1920s organized each of General Motors’ decentralized divisions exactly the same way. Thirty years later, in the massive reorganization of the (American) General Electric Company in the early 1950s, it was still considered “heresy” to organize a small unit of a few dozen researchers engaged solely on development work for the U.S. Air Force differently from huge “departments” employing several thousand people and manufacturing a standard product, for example, a toaster for the kitchen. The small development group was actually saddled with a manufacturing manager, a personnel manager, a financial manager, and a public relations manager.

But in any one enterprise—probably even in Fayol’s “typical manufacturing company”—there is need for a number of different organization structures coexisting side by side.

Managing foreign currency exposure is an increasingly critical—and increasingly difficult—task in a world economy. It requires total centralization. No one unit of the enterprise can be permitted to handle its own foreign currency exposures. But in the same enterprise servicing the customer, especially in high-tech areas, requires almost complete local autonomy—going way beyond traditional decentralization. Each of the individual service people has to be the “boss,” with the rest of the organization taking its direction from them.

Certain forms of research require a strict functional organization with all specialists “playing their instrument” by themselves. Other kinds of research, however, especially research that involves decision making at an early stage (e.g., some pharmaceutical research), require teamwork from the beginning. And the two kinds of research often occur side by side and in the same research organization.

The belief that there must be one right organization is closely tied to the fallacy that Management is Business Management. If earlier students of management had not been bunkered by this fallacy but had looked at nonbusinesses, they would soon have found that there are vast differences in organization structure according to the nature of the task.

A Catholic diocese is organized very differently from an opera. A modern army is organized very differently from a hospital. But also, typically, these institutions have more than one organization structure. In the Catholic diocese, for instance, the bishop is the absolute authority in certain areas, a constitutional monarch in others (severely limited, for instance, in his right to

discipline his diocesan clergy) and virtually powerless in others—he cannot, for instance, visit a parish in his diocese unless the parish priest invites him to do so. The bishop appoints the members of the diocesan court—though custom indicates which of his clerics are eligible for such an appointment. But once that court is appointed it, rather than the bishop, has exclusive jurisdiction in a great many areas.

There are indeed some “principles” of organization.

One is surely that organization has to be transparent. People have to know and have to understand the organization structure they are supposed to work in. This sounds obvious—but it is far too often violated in most institutions (even in the military).

Another principle I have already mentioned: Someone in the organization must have the authority to make the final decision in a given area. And someone must clearly be in command in a CRISIS. It is a sound principle that authority be commensurate with responsibility.

It is a sound principle that one person in an organization should have only one “master.” There is wisdom to the old proverb of the Roman Law that a slave who has three masters is a free man. It is a very old principle of human relations that no one should be put into a conflict of loyalties—and having more than one “master” creates such a conflict (which, by the way, is the reason that the “Jazz Combo” team, so popular now, is so difficult—every one of its members has two masters, the head of the specialty function, for example, engineering, and the team leader). It is a sound, structural principle to have the fewest layers, that is, to have an organization that is as “flat” as possible—if only because, as Information Theory tells us, “every relay doubles the noise and cuts the message in half.”

But these principles do not tell us *what to do*. They only tell us what not to do. They do not tell us what will work. They tell us what is unlikely to work. These principles are not too different from the ones that inform an architect’s work. They do not tell him what kind of building to build. They tell him what the restraints are. And this is pretty much what the various principles of organization structure do.

One implication: *Individuals* will have to be able to work at one and the same time in different organization structures. For one task they will work in a team. But for another task they will have to work—and at the same time—in a command and control structure. The same individual who is a “boss” within his or her own organization is a “partner” in an alliance, a minority participation, a joint venture and so on. Organizations, in other words, will have to become part of the executive’s toolbox.

Even more important: We need to go to work on studying the strengths and the limitations of different organizations. For what tasks are what organizations most suitable? For what tasks are what organizations least suitable? And when, in the performance of a task, should we switch from one kind of organization to another?

This analysis is perhaps most needed for the currently “politically correct” organization: the team.

It is generally assumed today that there is only one kind of team—call it the Jazz Combo—and that it fits every task. Actually there are at least half a dozen—perhaps a full dozen—very different teams, each with its own area of application, each with its own limitations and

difficulties, and each requiring different management. The team that is popular now, the Jazz Combo, is arguably the most difficult one, the one most difficult to make work and the one with the most severe limitations. Unless we work out, and fast, what a given team is suited for, and what a given team is not suited for, teams will become discredited as “just another fad” within a few short years. Yet teams are important. Where they do belong and where they do work, they are the most effective organization.

And surely we will have to study and to use “mixed” structures rather than only the “pure,” “one right organization,” which organization theory—and largely also organization practice—still believes in.

One example: the dozen or more highly trained people needed to perform open-heart surgery such as a heart bypass operation. They can be seen as a pure—indeed an extreme—example of Fayol’s “functional organization,” with each member—the lead surgeon, the two assistant surgeons, the anesthesiologist, the two nurses who prepare the patient for the operation, the three nurses who assist at the operation, the two or three nurses and the resident in the recovery room and intensive care unit, the respiratory technician running the heart-lung machine, the three or four electronic technicians—each doing ONE, and only one task and never, never doing anything else. Yet these people look upon themselves as a “team”—and are seen as a team by everyone in the hospital. They are indeed a “team” in that each member—immediately and without anyone’s giving an order or saying one word—changes HOW he or she is doing the job with the slightest change in the rhythm, the progress, the flow of the operation.

One area in which research and study are particularly needed is the ORGANIZATION OF TOP MANAGEMENT.

Concern with organization actually began with the first conscious design of the top management job—the AMERICAN CONSTITUTION. This design did solve for the first time what had been the oldest organization problem of political society and one that no earlier political system could solve: the succession problem. The Constitution made sure that there would always be a chief executive officer fully legitimate, fully authorized and (hopefully) prepared for the job—and yet not threatening the authority of the present incumbent as did the crown princes of yore. In respect to the structure of top management in nonpolitical organizations, work also antedates formal organization theory. Georg Siemens—already mentioned as the founder of the Deutsche Bank and as the savior, through imposing formal organization structure, of his cousin’s electric company (and both the Deutsche Bank and the Siemens Electric Company are still their country’s largest businesses in their respective industries)—designed what to this day is the legal structure of top management in Germany (and, with slight variations, in Central and Northern Europe as well): a team of equal partners, each of whom, however, is a FUNCTIONAL expert and all but autonomous in his or her area, with the entire group then electing a “SPEAKER” who is not a “boss” but a “leader.”

Yet I doubt that anyone would assert that we really know how to organize the top management job, whether in a business, a university, a hospital or even a modern church.

One clear sign is the growing disparity between our rhetoric and our practice: We talk incessantly about “teams”—and every study comes to the conclusion that the top management job does indeed require a team. Yet we now *practice*—and not only in American industry—the most extreme “personality cult” of CEO supermen. And no one seems to pay the slightest attention in

our present worship of these larger-than-life CEOs to the question of how and by what process they are to be succeeded—and yet, succession has always been the ultimate test of any top management and the ultimate test of any institution.

There is, in other words, an enormous amount of work to be done in organizational theory and organization practice—even though both are the oldest areas of organized work and organized practice in management.

The pioneers of management a century ago were right. *Organizational Structure* is needed. The modern enterprise—whether business, civil service, university, hospital, large church or large military—needs organization just as any biological organization beyond the amoeba needs structure. But the pioneers were wrong in their assumption that there is—or should be—one right organization. Just as there are a great number of different structures for biological organizations, so there are a number of organizations for the social organism that is the modern institution. Instead of searching for the right organization, management needs to learn to look for, to develop, to test

The organization that fits the task.

III

The One Right Way to Manage People

In no other area are the basic traditional assumptions held as firmly—though mostly subconsciously—as in respect to people and their management. And in no other area are they so totally at odds with reality and so totally counterproductive.

“*There is one right way to manage people—or at least there should be.*” This assumption underlies practically every book or paper on the management of people.

Its most quoted exposition is Douglas McGregor’s book *The Human Side of Enterprise* (1960), which asserted that managements have to choose between two and only two different ways of managing people, “Theory X” and “Theory Y,” and which then asserted that Theory Y is the only sound one. (A little earlier I had said pretty much the same thing in my 1954 book *The Practice of Management*.) A few years later Abraham H. Maslow (1908–1970) showed in his *Eupsychian Management* (1962; new edition 1995 entitled *Maslow on Management*) that both McGregor and I were dead wrong. He showed conclusively that different people have to be managed differently.

I became an immediate convert—Maslow’s evidence is overwhelming. But to date very few people have paid much attention.

On this fundamental assumption that there is—or at least should be—one and only one right way to manage people, rest all the other assumptions about people in organizations and their management.

One of these assumptions is that the people who work for an organization are *employees* of the organization, working full-time, and dependent on the organization for their livelihood and their careers. Another such assumption is that the people who work for an organization are *subordinates*. Indeed, it is assumed that the great majority of these people have either no skill or low skills and do what they are being assigned to do.

Eighty years ago, when these assumptions were first formulated, during and at the end of WWI, they conformed close enough to reality to be considered valid. Today every one of them has become untenable. The majority of people who work for an organization may still be employees of the organization. But a very large and steadily growing minority—though working *for* the organization—are no longer its employees, let alone its full-time employees. They work for an outsourcing contractor, for example, the outsourcing firm that provides maintenance in a hospital or a manufacturing plant, or the outsourcing firm that runs the data processing system for a government agency or a business. They are “temps” or part-timers. Increasingly they are individual contractors working on a retainer or for a specific contractual period; this is particularly true of the most knowledgeable and therefore the most valuable people working for the organization.

Even if employed full-time by the organization, fewer and fewer people are “subordinates”—even in fairly low-level jobs. Increasingly they are “knowledge workers.” And knowledge workers are not subordinates; they are “associates.” For, once beyond the apprentice stage, knowledge workers must know more about their job than their boss does—or else they are no good at all. In fact, that they know more about their job than anybody else in the organization is part of the definition of knowledge workers.

The engineer servicing a customer does not know more about the product than the engineering manager does. But he knows more about the customer—and that may be more important than product knowledge. The meteorologist on an air base is vastly inferior in rank to the air base commander. But he is of no use unless he knows infinitely more about weather forecasting than the air base commander does. The mechanic servicing an airliner knows far more about the technical condition of the plane than the airport manager of the airline to whom he reports, and so on.

Add to this that today’s “superiors” usually have not held the jobs their “subordinates” hold—as they did only a few short decades ago and as still is widely assumed they do.

A regimental commander in the army, only a few decades ago, had held every one of the jobs of his subordinates—battalion commander, company commander, platoon commander. The only difference in these respective jobs between the lowly platoon commander and the lordly regimental commander was in the number of people each commands; the work they did was exactly alike. To be sure, today’s regimental commanders have commanded troops earlier in their careers—but often for a short period only. They also have advanced through captain and major. But for most of their careers they have held very different assignments—in staff jobs, in research jobs, in teaching jobs, attached to an embassy abroad and so on. They simply can no longer assume that they know what their “subordinate,” the captain in charge of a company, is doing or trying to do—they have been captains, of course, but they may have never commanded a company.

Similarly, the vice-president of marketing may have come up the sales route. He or she knows

a great deal about selling. But he or she knows nothing about market research, pricing, packaging, service, sales forecasting. The marketing vice-president therefore cannot possibly tell the experts in the marketing department what they should be doing, and how. Yet they are supposed to be the marketing vice-president's "subordinates"—and the marketing vice-president is definitely responsible for their performance and for their contribution to the company's marketing efforts.

The same is true for the hospital administrator or the hospital's medical director in respect to the trained knowledge workers in the clinical laboratory or in physical therapy.

To be sure, these associates are "subordinates" in that they depend on the "boss" when it comes to being hired or fired, promoted, appraised and so on. But in his or her own job the superior can perform only if these so-called subordinates take responsibility for *educating* him or her, that is, for making the "superior" understand what market research or physical therapy can do and should be doing, and what "results" are in their respective areas. In turn, these "subordinates" depend on the superior for direction. They depend on the superior to tell them what the "score" is.

Their relationship, in other words, is far more like that between the conductor of an orchestra and the instrumentalist than it is like the traditional superior/subordinate relationship. The superior in an organization employing knowledge workers cannot, as a rule, do the work of the supposed subordinate any more than the conductor of an orchestra can play the tuba. In turn, the knowledge worker is dependent on the superior to give direction and, above all, to define what the "score" is for the entire organization, that is, what are standards and values, performance and results. And just as an orchestra can sabotage even the ablest conductor—and certainly even the most autocratic one—a knowledge organization can easily sabotage even the ablest, let alone the most autocratic, superior.

Altogether, an increasing number of people who are full-time employees have to be managed as if they were *volunteers*. They are paid, to be sure. But knowledge workers have mobility. They can leave. They own their "means of production," which is their knowledge. (See on this also Chapter Six.)

We have known for fifty years that money alone does not motivate to perform. Dissatisfaction with money grossly demotivates. Satisfaction with money is, however, mainly a "hygiene factor," as Frederick Herzberg called it all of forty years ago in his 1959 book *The Motivation to Work*. What motivates—and especially what motivates knowledge workers—is what motivates volunteers. Volunteers, we know, have to get *more* satisfaction from their work than paid employees, precisely because they do not get a paycheck. They need, above all, challenge. They need to know the organization's mission and to believe in it. They need continuous training. They need to see results.

Implicit in this is that different groups in the work population have to be managed differently, and the same group in the work population has to be managed differently at different times. Increasingly "employees" have to be managed as "partners"—and it is the definition of a partnership that all partners are equal. It is also the definition of a partnership that partners cannot be ordered. They have to be persuaded. Increasingly, therefore, the management of people is a "marketing job." And in marketing one does not begin with the question: "What do *we* want?" One begins with the question: "What does the other party want? What are its values? What are its goals? What does it consider results?" And this is neither "Theory X" nor "Theory Y," nor any other specific theory of *managing* people.

Maybe we will have to redefine the task altogether. It may not be “managing the work of people.” The starting point both in theory and in practice may have to be “managing for performance.” The starting point may be a definition of results—just as the starting points of both the orchestra conductor and the football coach are the score.

The productivity of the knowledge worker is likely to become the center of the management of people, just as the work on the productivity of the manual worker became the center of managing people a hundred years ago, that is, since Frederick W. Taylor. This will require, above all, very different assumptions about people in organizations and their work:

One does not “manage” people.

The task is to lead people.

And the goal is to make productive the specific strengths and knowledge of each individual.

IV

Technologies and End-Users Are Fixed and Given

Four major assumptions, as said above, have been underlying the PRACTICE of Management all along—in fact for much longer than there has been a DISCIPLINE of Management.

The assumptions about technology and end-users to a very large extent underlie the rise of modern business and of the modern economy altogether. They go back to the very early days of the Industrial Revolution.

When the textile industry first developed out of what had been cottage industries it was assumed—and with complete validity—that the textile industry had its own unique technology. The same was true in respect to coal mining, and of any of the other industries that arose in the late 18th century and the first half of the 19th century. The first one to understand this and to base a major enterprise on it was also one of the first men to develop what we would today call a modern business, the German Werner Siemens (1816–1892). It led him in 1869 to hire the first university-trained scientist to start a modern research lab—devoted exclusively to what we would now call electronics, and based on a clear understanding that electronics (in those days called “low-voltage”) was distinct and separate from all other industries, and had its distinct and separate technology.

Out of this insight grew not only Siemens’s own company with its own research lab, but also the German chemical industry, which assumed worldwide leadership because it based itself on the assumption that chemistry—and especially organic chemistry—had its own unique technology. Out of

it then grew all the other major leading companies the world over, whether the American electrical and chemical companies, the automobile companies, the telephone companies and so on. Out of this insight then grew what may well be the most successful invention of the 19th century, the research laboratory—the last one almost a century after Siemens's, the 1950 lab of IBM—and at around the same time the research labs of the major pharmaceutical companies as they emerged as a worldwide industry after World War II.

By now these assumptions have become untenable. The best example is of course the pharmaceutical industry, which increasingly has come to depend on technologies that are fundamentally different from the technologies on which the pharmaceutical research lab is based: genetics, for instance, microbiology, molecular biology, medical electronics and so on.

But the same thing has happened in the automobile industry, which increasingly has become dependent on electronics, and on the computer. It has happened to the steel industry, which increasingly has become dependent on materials sciences of which the original steel companies were totally ignorant—and largely still are. It has happened to the paper industry—the list could be continued indefinitely.

In the 19th century and throughout the first half of the 20th century, it could be taken for granted that technologies outside one's own industry had no, or at least only minimal, impact on the industry. No the assumption to start with is that the technologies that are likely to have the greatest impact on a company and an industry are technologies outside its own field.

The original assumption was of course that one's own research lab would and could produce everything the company—or the company's industry—needed. And in turn the assumption was that everything that this research lab produced would be used in and by the industry that it served.

This, for instance, was the clear foundation of what was probably the most successful of all the great research labs of the last hundred years, the Bell Labs of the American telephone system. Founded in the early 1920s, the Bell Labs until the late 1960s did indeed produce practically every new knowledge and every new technology the telephone industry needed. And in turn practically everything the Bell Labs scientists produced found its main use in the telephone system. This changed drastically with what was probably the Bell Labs's greatest scientific achievement: the transistor. The telephone company itself did become a heavy user of the transistor. But the main uses of the transistor were outside the telephone system. This was so unexpected that the Bell Telephone Company, when the transistor was first developed, virtually gave it away—it did not see enough use for it within the telephone system. But it also did not see any use for it outside it. And so what was the most revolutionary development that came out of the Bell Labs—and certainly the most valuable one—was sold freely to all comers for the paltry sum of \$25,000. It is on this total failure of the Bell Labs to understand the significance of its own achievement that practically all modern electronic companies outside of the telephone are based.

Conversely, the things that have revolutionized the telephone system—such as digital switching or the fiberglass cable—did not come out of the Bell Labs. They came out of technologies that were foreign to telephone technology. And this has been typical altogether of the last thirty to fifty years—and it is increasingly becoming more typical of every industry.

Technologies, unlike the 19th-century technologies, no longer run in parallel. They constantly

crisscross. Constantly, something in a technology of which people in a given industry have barely heard (just as the people in the pharmaceutical industry had never heard of genetics, let alone of medical electronics) revolutionizes an industry and its technology. Constantly, such outside technologies force an industry to learn, to acquire, to adapt, to change its very mindset, let alone its technical knowledge. The basic assumptions of genetics are alien to a pharmacologist—and yet genetics is rapidly revolutionizing the pharmaceutical industry. And the mindset of the geneticist is so different that so far, no major pharmaceutical company has been able to integrate genetics successfully into its own research program. It can only get access to genetics by alliances with outsiders, whether through minority participation in a genetics company or through an agreement with a university genetics department.

Equally important to the rise of 19th- and early-20th-century industry and companies was a second assumption: End-uses are fixed and given. For a certain end-use, for example, to put beer into containers, there may have been extreme competition between various suppliers of containers. But all of them, until recently, were glass companies, and there was only one way of putting beer into containers, a glass bottle.

Similarly, as soon as steel became available, that is, beginning in the last decades of the 19th century, rails for railroads were to be made from steel and from nothing else. As soon as electricity began to be transmitted over any distance, the wire had to be made from copper. And the same assumption applied to services. The credit needs of a business could only be supplied by a commercial loan from a commercial bank. The post office had a “natural monopoly” on transporting and delivering written and printed communications. There were two ways of getting fed: cooking for oneself at home or going out to a restaurant.

This was accepted as obvious not only by business, industry and the consumer, but by governments as well. The American regulation of business rests on the assumptions that to every industry pertains a unique technology and that to every end-use pertains a specific and unique product or service. These are the assumptions on which Anti-Trust was based. And to this day Anti-Trust concerns itself with the domination of the market in glass bottles and pays little attention to the fact that beer increasingly is not put into glass bottles but into cans (or, vice versa, Anti-Trust concerns itself exclusively with the concentration of supply in respect to metal containers for beer, paying no attention to the fact that beer is still being put into glass bottles, but also increasingly into plastic cans). As late as the mid-twenties the U.S. Supreme Court decided that there were two and only two mutually exclusive and non-competitive ways for telecommunication—the spoken word went via telephone and the written word went via telegraph. And ten years later during the Depression, the Congress of the United States separated investment banking from commercial banking, each to be set up in separate institutions and each having its own exclusive end-use.

But since WWII end-uses are not uniquely tied any more to a certain product or service. The plastics of course were the first major exception to the rule. But by now it is clear that it is not just one material moving in on what was considered the “turf” of another one. Increasingly the same want is being satisfied by very different means. It is the *want* that is unique, and not the means to satisfy it.

As late as the beginning of WWII, news was basically the monopoly of the newspaper—an 18th-century invention that saw its biggest growth in the early years of the 20th century. By now there are several competing ways to deliver news: still the printed newspaper, increasingly the same newspaper delivered on-line through the Internet, radio, television, separate news organizations that use only electronics—as is increasingly the case with economic and business news—and quite a few additional ones.

The U.S. Glass-Steagall Act of the Depression years not only attempted to prevent commercial banks from doing business in the investment market, it also tried to prevent investment bankers from doing commercial banking business and thus tried to give banks a monopoly on lending. One paradoxical result was that this act, intended to establish the monopoly position of the bank in the commercial market, has given the commercial market to the investment bankers. By a quirk of American law (a Supreme Court decision of the 1920s) “commercial paper” (the American equivalent to the European Bill of Exchange) was classified as a “security.” This then enabled the investment bankers after 1960 to become the dominant force in the commercial banking business, that is, to replace increasingly the banks’ commercial loan with the investment bankers’ “commercial paper.”

But increasingly in all developed countries the fastest-growing source of commercial credit is neither the commercial bank nor the investment bank. It is the credit card in its various forms. A still fairly small but rapidly growing number of credit card customers have multiple credit cards—some as many as twenty-five or thirty. They use these cards to obtain and to maintain a level of credit far beyond their creditworthiness. That the interest rate is very high does not seem to bother them, since they do not have any intention anyhow of paying off the loans. They manipulate them by shifting the outstanding balance from one card to the other so that they are never forced to pay more than very small, minimum amounts. The credit card has thus become what used to be called “legal tender.” Nobody knows how big this new form of money has become—but it is clearly a new form of money. And it has already become so big as to make almost meaningless the figures for money in circulation, whether M1 or M2 or M3, on which central banks and economists base their theories and their forecasts.

And then there is the new “basic resource” information. It differs radically from all other commodities in that it does not stand under the scarcity theorem. On the contrary, it stands under an abundance theorem. If I sell a thing—for example, a book—I no longer have the book. If I impart information, I still have it. And in fact, information becomes more valuable the more people have it. What this means for economics is well beyond the scope of this book—though it is clear that it will force us radically to revise basic economic theory. But it also means a good deal for management. Increasingly basic assumptions will have to be changed. Information does not pertain to any industry or to any business. Information also does not have any one end-use, nor does any end-use require a particular kind of information or depend on one particular kind of information.

Management therefore now has to start out with the assumption that there is no one technology that pertains to any industry and that, on the contrary, all technologies are capable—and indeed likely—to be of major importance to any industry and to have impact on any industry. Management similarly has to start with the assumption that there is no one given end-use for any product or service and that, conversely, no end-use is going to be linked to any one product or service.

Some implications of this are that increasingly the *noncustomers* of an enterprise—whether a business, a university, a church, a hospital—are as important as the customers, if not more important.

Even the biggest enterprise (other than a government monopoly) has many more noncustomers than it has customers. There are very few institutions that supply as large a percentage of a market as 30 percent. There are therefore few institutions where the noncustomers do not amount to at least 70 percent of the potential market. And yet very few institutions know anything about the noncustomers—very few of them even know that they exist, let alone know who they are. And even fewer know why they are not customers. Yet it is with the noncustomers that changes always start.

Another critical implication is that the starting point for management can no longer be its own product or service, and not even its known market and its known end-uses for its products and services. The starting point has to be what *customers consider value*. The starting point has to be the assumption—an assumption amply proven by all our experience—that the customer never buys what the supplier sells. What is value to the customer is always something quite different from what is value or quality to the supplier. This applies as much to a business as to a university or to a hospital.

One example is the pastoral mega-churches that have been growing so very fast in the United States since 1980, and that are surely the most important social phenomenon in American society in the last thirty years. Almost unknown thirty years ago—there were no more than a thousand churches then that had a congregation exceeding two thousand people—there are now some twenty thousand of them. And while all the traditional denominations have steadily declined, the mega-churches have exploded. They have done so because they asked, “What is value?” to a *nonchurchgoer*. And they have found that it is different from what churches traditionally thought they were supplying. The greatest value to the thousands who now throng the mega-churches—and do so weekdays and Sundays—is a spiritual experience rather than a ritual, and equally management responsibility for volunteer service, whether in the church itself or, through the church, in the community.

Management, in other words, will increasingly have to be based on the assumption that neither technology nor end-use is a foundation for management policy. They are limitations. The foundations have to be customer values and customer decisions on the distribution of their disposable income. It is with those that management policy and management strategy increasingly will have to start.

V

Management's Scope Is Legally Defined

Management, both in theory and in practice, deals with the legal entity, the individual enterprise—

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