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Business Is About *People*

The most important single ingredient in the formula of success is knowing how to get along with people.

—Theodore Roosevelt

You may have heard various slogans or quotes, such as the one above, about the importance of people to a business. It is easy to nod your head and let them fly right by.

But, in fact, they are true—very true.

To the engineer, it may seem that business is about having the best technology. To the MBA, it may seem that business is about products, markets, or finance. To the computer programmer, business is about writing great application software.

As important as these are, they are all secondary to the fundamental fact that *people*, both inside and outside your organization, must be satisfied to make any aspect of a business successful, whatever the business.

Engineers often miss this essential truth of business, sadly to their detriment. As unfortunate as this is, it is far more detrimental for the engineering manager to miss this truth. Do not let this happen to you!

If an engineer were fortunate, he or she would have had the experience of working in a team prior to becoming a manager. Working in a team helps one appreciate interdependencies with others, a quality that is a major underpinning of effective management. The truly lucky engineer has had a supervisor or mentor who appreciates the central importance of people to a business.

Most engineers are promoted into management and they struggle with learning and applying the skills that they need to be successful as managers. However, many engineers do successfully make the transition; they capitalize on their technical expertise but learn to be proficient in the world of interactions with associates. Jack Welch, the longtime head of GE, began his career as a chemical engineer. After starting as an aerodynamics engineer, Phil Condit eventually became the CEO of Boeing.

There are many managerial positions in which technical skills apply and are indeed critical. But even in these situations, technical skills often take a secondary position to the need to master a variety of management skills.

For example, consider the Manhattan Project, which involved developing the atomic bomb, during World War II. Robert Oppenheimer, a renowned physicist at the University of California at Berkeley, was one of the project's leaders. Certainly, his technical expertise was important to the project's success, yet it was his ability to effectively lead and motivate the team of scientific superstars that came to be recognized as a critical reason for the endeavor's success [1].

We could devote several pages to specific instances of Oppenheimer's managerial acumen. But let us highlight one seemingly minor point that demonstrates his appreciation of the human dimensions of work, and the particular challenges of this unique project. Oppenheimer was instrumental in locating the project team in Los Alamos, New Mexico, an area he had visited for years. Certainly, isolation was important for the project's security. Yet, he also recognized that participation in the development of a weapon of mass destruction would weigh heavily on the souls of the scientists. Time spent gazing in the distance on the beautiful and spacious New Mexico landscape would help team members work out the moral implications of their work. "His ability to recognize this fact contributed greatly, possibly more than anything he did, to making [the project] a success" [2].

If you learn nothing else from this book, remember this: The success of the engineer's transition to management is mostly governed by the ability to work successfully with people. Burn this into your brain. It will serve you in almost every situation.

Encountering New Challenges in the Transition

Suppose you are a mechanical engineer and you work for a company that designs engine components for automakers. For the past couple of years, you have done a good job at designing pistons. If you are like most engineers in

such a role, you likely spent much of your time with your head down solving technical performance and manufacturing issues.

Recently, you were promoted to manager of the design group. Your whole world has changed.

Previously, your primary focus was on lubrication, materials, and dimensions. Now your concerns are vastly different. Perhaps you are faced with the challenge of getting your group to meet the delivery schedule for the final block design for next year's Ford Explorer engine. Or maybe you need to convince the company president to invest in the expensive new *computer-aided design* (CAD) package that will improve productivity. Then you also need to facilitate the resolution to an impasse between the IT group at Nissan and your own IT group over design file sharing.

Based on their backgrounds, many engineers turned managers would continue to view these problems from a technical perspective. While some of these challenges may involve a technical component, they will not go away by solving an equation.

These issues tend to have common themes: communications, leadership, motivation, focus, organization, decision making, influence, and problem solving. These issues primarily concern people—how people accomplish things and how they get along and work together on a common agenda. But all of these issues, and more like them, play a dramatic role in your success, your livelihood, and your happiness.

It Is Not About Technology

Ralph Waldo Emerson once said, “Build a better mousetrap and the world will beat a path to your door.” His words capture the “elitism” about technology often resident in the engineering community, a belief that success is defined by having the best technology.

However, the marketplace is littered with great technologies that never garnered the market share that matched their technical quality. Was not Betamax a better technical solution than VHS for consumer video recording? Few would argue that Microsoft Windows is technically superior to the Macintosh operating system. Which of these products has the overwhelming market share?

It becomes almost second nature for engineers to focus on things—this is their livelihood, the standard by which they are judged. The stereotypical engineer is comfortable with working alone on a technological problem, challenged only by his or her ability to master the physical laws of the

universe to his or her advantage or to manipulate some machine into performing new tricks. This expertise is of great value to society and to your employer.

Of course technology is important, but the point to be made here is that it is people who make the decisions about the technology. It is their decisions that ultimately bring about the success or failure of the technology in the marketplace. Certainly, one cannot totally ignore or dismiss technology, but when there are decisions to be made about technology, pay attention to the people involved.

Previously, I was heavily involved in a breakthrough technology in electric power, a technology that had all the signs of becoming a “killer app.” As engineers, our team members thought we would succeed because we had developed leading-edge technology. After 4 years of research and development and securing a license for production with a major manufacturing and marketing company, it seemed like our technology was poised for success.

In fact, the customers in the market for the product were far from ready for the technology, and even resisted it outright. It took several more years of development, this time with heavy customer involvement, to finally develop a product that customers accepted.

Our team was slow to learn that a major prerequisite for the success of a technology is having developers who are focused on pleasing customers through their use of the technology.

If you have read this far, you may be feeling that your engineering skills have suddenly become obsolete. On the contrary, they are still valuable and you will continue to use them, but you will need to acquire new skills that augment and guide your technical skills.

It is fine to be an engineer who worships at the altar of technology because good technology is an important asset. But please, also build an altar to people and look for ways to meet their needs and interests. Do not forget the technology, but be sure to put people first.

Nor Is It About the Money

Perhaps you have heard the old saying, “The people who manage money, manage the people who manage people, who manage the people who manage things.”

At first glance, this saying seems to suggest that if you want to be in charge, then you need a stash of cash. It may be true that money commands respect, but if you are not flush with funds, what can you do?

On closer examination, look at the second group, the “people who manage people.” Then notice who manages money ... it is also ... people. So the group that manages people can also manage *the people who manage money*.

Are you confused yet?

Consider the individuals in your organization who control and approve funding for your projects or your department. They regularly make decisions about where and how to spend the organization’s money. They do not make those decisions in a vacuum—they are influenced, or managed if you will, by other people inside and outside your organization. *Perhaps even by those people who manage people!*

Perhaps you do not currently sit on a pile of cash. You can still have access to the cash that others are willing to spend if you know how to work with them, and how to work with their money, in a way that is pleasing to them.

Relationships Define Business

Every product, every technology, every application came about from the thoughts, decisions, and effort of people—*they* are the ones who control the technology, the money, and everything else. And in case you have not noticed by now, many of the people who are making those decisions are *not* engineers—they do not necessarily value the same things that engineers do.

These people are the customers who buy, or do not buy, what you are selling. They are the team members who do the work, or who do not. They are the bosses who give you kudos or give you grief. They are the people who can make life easier for you, or harder. They are the people who can achieve greatness or fail miserably.

Just to make life interesting, it is often the very same people who go both ways.

The strength of your relationships with these people will go a long way toward determining whether they bring you happiness or give you a headache.

By the way, take a look in the mirror. For just as the people around you play their parts in your drama, likewise you have a role to play in their lives. Appreciate and cherish this interdependency—it is how and why things get done.

The Lengthy List of Credits

Look around at every product you touch—it is the end result of hours upon hours of thought and sweat by countless people. Consider that cup of java

from Starbucks. It would make your head spin to think about how many people it took to make that satisfying jolt of caffeine possible for you.

Your latte was served by a hard-working *barrista* who brewed a varied selection of coffees for you and dozens of other people just like you. But it took much more than the effort of your clerk to deliver this product and the accompanying experience to you.

A farmer somewhere milked the cows that provided the cream for your coffee. Perhaps the sugar originated in a sugarcane field in south Louisiana much like the one my grandfather once owned and was produced by people whose livelihood is married to your taste buds.

While you are waiting for your espresso, think about the people at the power company that supplied the electricity for the shop and provided the light for you to see the menu board. Would you like a muffin with your coffee? Someone got up early this morning to mix a batter and bake that tasty treat for you.

Suppose you got tired of Starbucks and even swore off coffee altogether. What if a lot of people did that? Certainly it would hit home to your clerk, who became unemployed when the local Starbucks closed. Life would be harder for the landlord, who would no longer have rental income from the closed shop. How about the depositors in the bank that loaned the money to the landlord who now cannot pay the mortgage?

If a large number of people stopped drinking coffee, it could devastate an entire business or industry. It would hurt the people who deliver coffee beans from the warehouse to the stores ... and the people who make those cute mugs they sell in Starbucks too. What about the artists who recorded the music that is sold on CDs at the shops? Go even further. Someone had to transport the coffee beans from halfway around the world. And please, do not forget that farmer in Kenya, living on the edge of poverty, whose very existence depends on selling coffee beans.

If your cup of coffee was a major Hollywood movie, it would have a list of credits a mile long!

It is a good thing that all of these people had you in mind when they came up with a way to interact and work together toward that moment when you close your eyes and breathe deeply over the steaming tall cup that serves to jump-start your day.

Each of these people could have chosen to focus, perhaps selfishly, on something other than your moment of aroma-laden satisfaction. What if the manager of that local coffee shop believed that French blend was gustatorily superior to all other coffees and refused to brew anything else? Suppose that the delivery truck driver decided to spend the day cleaning, waxing, and

detailing the truck so that everyone would marvel at how it sparkled? Would having the shiniest delivery truck in the city matter if Starbucks had no coffee beans to grind because it had no deliveries that day?

Now take a look around at your life, your work. Can you see all the people who are involved, intimately or distantly, in what you are doing? They all have a stake in your efforts. They all influence your efforts, for better or worse, and many of them can approve or disapprove of your work. It is wise to get to know them better, as well as what they want and what they need.

Your Network

Who are the people in your universe? Most engineer-managers have a network of relationships with individuals in the following roles.

The People You Supervise

You depend on your team members to complete the work for which you are responsible. It is vitally important that you take care of them and spend considerable time with them on a regular basis, and that you communicate appropriate and relevant information to them. In addition to guiding their work, you will be very influential in their professional development and growth. Please take this responsibility to heart and view it as an honor. Never pass up an opportunity to praise your team members and to let your supervisor and management know about your great team. And please be sure that the people you supervise learn what you now know about the importance of the people in their networks.

Your Supervisor

Your direct supervisor is likely to be the person most influential in your personal success and progress in the organization. You will need to devote considerable attention to this relationship, although you may not necessarily spend a lot of time with your supervisor. If you are blessed with a good supervisor, savor the experience and learn much from it. Following in the footsteps of such a person is a great way to ramp your management career. On the other hand, if your supervisor is less than effective in leading you, it is important that you learn to lead him or her. Otherwise, it will be difficult for you to be effective, and your career progress may stall.

Management

This category includes persons directly above your supervisor up to the top position in the organization. Ultimately, your work must follow the business

objectives of your organization, so it is important that you and your supervisor correctly interpret these objectives as they apply to your work. Being known by and visible in a positive manner to your management is also very valuable to your career. Just be sure that you do so in such a way that your supervisor is involved in the process. As you do with your team members, provide compliments about your supervisor to your contacts in management.

Sponsors

A sponsor in an organization has ownership of a product, project, or program. This person may or may not be your supervisor and may be related laterally to your supervisor in the organization. If you are part of the sponsor's endeavor, you will also need to pay attention to that person's needs.

Functional Managers

Is the head of human resources important to you? What about the director of marketing? Depending on the structure of your organization and your responsibilities, you may have a significant need to interact with various individuals who manage functions of the organization. Often these individuals make decisions that can dramatically affect your work or your team.

Customers

Ultimately, your work must be approved and valued by your customers. Do whatever you can to build positive and open relationships with your customers, starting as early as you can. The better you understand the needs of your customers, and the closer you interact with them, the fewer headaches you will have.

Other Stakeholders

The term "stakeholder" applies to anyone who may influence or have a "stake" in the outcome of your work. From time to time, you may need the assistance or approval of other individuals who do not necessarily fit into any of the previous categories. For example, a vendor with whom you have a good relationship may be able to expedite delivery of key test equipment to meet your critical deadline.

Community

As John Donne wrote, "No man is an island." The same is true of organizations. Although responsibilities at work can seem to consume all your time, it

is always helpful and rewarding to get involved in the community beyond the office, even if it is in a small way. The word “community” here can be interpreted in many ways, including a local civic group or a professional organization. The time you invest can often benefit your work through the network you develop, but the benefits often occur in ways that are completely unexpected.

Loved Ones

While you are developing your managerial skills and accomplishing great things at work, do not forget the people who make it all worthwhile. You will rarely, if ever, hear someone at the end of their life saying they wished they had spent more time at work. Instead, they often wish they had spent more time with their family and friends.

As you can see, there are a lot of people who can affect your work and your happiness. They can help make your life pleasant or miserable. Get to know them, their needs, their perceptions, and their values. Doing so will make a tremendous difference in your work and in your life.

Closure

Engineers are valued primarily for their technical skills, but when engineers become managers, technical skills often become less important than the mastery of relationships with people. The challenges faced by managers typically include issues such as communications, leadership, and problem solving. The engineer in transition to management often faces such issues for the first time and is flummoxed—these are “people issues,” not technical issues.

But you have come to the right place. Throughout this book, we will delve deeply into issues that have to do with people and their involvement in businesses.

Your success as an engineer in transition to management depends overwhelmingly on skillfully interacting with your extensive and growing network of associates. You have now passed a significant hurdle in your transition. You now know the fundamental truth for working effectively in organizations.

It may even start to seem a bit easy ... just get along with these important people in my network and things will go well. What could go wrong?

Well, there is much that can go wrong ... and does go wrong! But you can avoid much trauma in relationships with preparation and skill.

References

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