PREFACE

While there is technical stuff in this book, technically it is not true. There are no "how to" hints, but there are, buried in the book, messages on various levels. Some have extraordinary implications about the health of technology in the United States.

On one level, the material is merely humor derived from absurd experiences in Corporate America. There is value in loosening up and laughing. We can get too wrapped up in our technical problems. We can get too serious and lose a sense of perspective and our humanity, both to the detriment of ourselves and society.

On another level the material points to the insidious and proliferating distractions that prevent the engineer from achieving the high degree of technical accomplishment that is possible today. Liability issues, the unfriendliness of so-called "smart" systems, the quest for the mythical "design without engineering," the emphasis upon appearance rather than substance, and the sacrifice of long-term benefits for short-term objectives are drains on the lifeblood of technology. The engineer is in the enviable position of being able to do something significant to improve the quality of life through the application of emerging technologies, to produce new products, to rehabilitate ecological systems, and to protect the environment. The question is not whether the engineer *can* do it, but *will* the engineer do it? Will he or she focus on socially responsible goals and be given the freedom and resources to accomplish them? Will Corporate America do the right thing or continue on

a new path of capitalism that shows a disturbing lack of empathy and foresightedness?

Thus, there is another message level that expresses an even greater concern about the misuse of capitalism. The viewpoint is not one obtained from any education in business principles, but grows from reflections on world events and the observed effect of business goals on engineering and manufacturing in America over the last decade.

The emergence of capitalism as the time-tested victor in the battle of economic systems has rightfully confirmed it as the best for overall prosperity. The basis of capitalism—the desire for money and the associated stature and power—is overwhelming and pops up no matter how much it is suppressed (e.g., the black market). While capitalism is not benevolent by nature, the checks and balances between a free economy, educated consumers, and social consciousness help spread the wealth. Until recently, most wealth in industrial economies was accumulated based on improvements in manufacturing that was accomplished according to the rules of supply and demand. Providing a better product was a way of earning more money. Total quality emerged, and the customer and the manufacturer began to work together in a mutually beneficial relationship. But stock manipulation, take-overs, junk bonds, and the milking of manufacturing, equipment, and institutional assets also appeared as a way of making money. The bankruptcy of once viable corporations and the failure of previously prosperous savings and loans institutions, banks, and insurance companies are flagrant examples of the disturbing new trends. Not as well recognized is the gradual deterioration of the manufacturing base in America due to the misapplication of financial goals, the most widespread of which seems to be the obsession with short-term return on equity. It can be used by stock owners, brokers, and executives for immediate financial

gain, since the present stock price greatly depends upon the current return on equity. A short-term increase is obtained by working on the denominator. Operating units are sold, capital expenditures are reduced, and income is used to buy back stock to reduce equity. This inappropriate use of a financial goal tends to tear at the heart of the culture of a company. Rigid orders prevail, flexibility is reduced, the *perception* of what you are doing is more important than *what* you are doing, and risk taking and innovation are discouraged. On the other hand, a long-term increase in both the return on equity and the total cash flow is achieved by an inspirational strategic goal—work on the numerator—and by providing resources for the implementation of new technologies. The article "Strategic Intent" in the May-June 1989 issue of the *Harvard Business Review* eloquently details the need and the value of focusing on the strategic intent rather than on financial goals.

The diminished stature and the deterioration of manufacturing is not noticeable from the outside. The appearance of well-being is maintained through glowing financial reports, optimistic views of the discovery of miraculous new products, beautiful facades, artistic landscaping, and impressive meeting rooms. Meanwhile, plant equipment, technological expertise, the ability to sustain existing products, and the ability to commercialize new products is deteriorating. The stock market, perhaps unknowingly, has become the perpetrator of a grand illusion.

We can blame the brokers, investors, and executives who are ingeniously exploiting the system, but more likely we should blame ourselves for setting the climate for economic disintegration and not demanding more socially responsible longer-term goals. It is an expression of our own insatiable appetites, our "use up and discard" culture, our movie set mentality, and our need for instant personal gratification. It is time to wake up. We are

nearing the end of an era of manufacturing in America and proceeding toward an economy based on invention, service, and financial manipulation.

Humor has a way of breaking down barriers and making people aware and (hopefully) ready to communicate about particularly difficult and controversial issues. The first requirement in changing ourselves is the ability to laugh at ourselves. So relax, enjoy a few chuckles, exercise the right side of your brain, let your soul emerge, and then set up an appointment with your CEO to work on long-term improvements in the numerator.

Oh, and tell your CEO that G. S. McWeiner sent you.