

# **The Only Trait of a Leader**

*A field guide to success  
for new engineers, scientists,  
and technologists*

**by  
John E. West**

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It is not the purpose of this text to reprint all available information on leadership skills and techniques for technology professionals, but instead to complement, amplify, and supplement other texts. You are urged to read all of the available material to learn as much as possible and tailor the information presented here and elsewhere to your individual needs.

**This is a sample from the new book “The Only Trait of a Leader,” by John E. West.**

If you're interested in learning more, check out full details on the web site, [www.onlytraitofaleader.com](http://www.onlytraitofaleader.com). There you can download samples of other chapters, or buy the entire book in PDF or print form.

Thanks for reading!

# Introduction

This book is about the future. More particularly, it's about how you are going to shape the future for the rest of the world.

Technology is the engine driving the tremendous increase in the standard of living that much of the world has experienced in the past two centuries. The changes we have experienced are phenomenal, and many of the specific changes were so fundamental that we can no longer imagine how we got along without them: electricity, automobiles, instantaneous person-to-person communications, the personal computer, and so on. And the rate of change is increasing: from 1999 to 2003 alone the amount of data produced yearly in the world grew by 70%<sup>1</sup>.

We are in a period of tremendous growth. According to the World Intellectual Property Organization it took world inventors 18 years to file the first 250,000 patents following the ratification of the Patent Cooperation Treaty in 1978. Over the next four years, from 1996 to 2000, that number doubled to 500,000 ideas registered. The number has just recently doubled again, reaching 1,000,000 ideas, in the four-year period between 2000 and 2004. The young technologists of the world—those just beginning their careers in computer science, engineering, and the physical sciences—are the

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<sup>1</sup> <http://www.sims.berkeley.edu/research/projects/how-much-info-2003/>

stewards for these ideas. They (you!) will use these new concepts and technologies to keep the global engine of change moving ever faster, and will also control the way in which these ideas are brought into the world. These leaders will lead us into the future, and the way we get there will shape what that future looks like and whether we end up with a world of abundance or one of scarcity.

My goal for this book is to help create a generation of “enlightened” technology leaders. New engineers, scientists, and technology professionals—a group I refer to collectively as technologists—control the keys to the forces that will shape the world for the next several generations.

## **What is a leader?**

One of my mentors frequently reminds me that the only trait that distinguishes a leader from others is that the leader has followers. Being a leader has nothing to do absolutely or essentially with the trappings of leadership: position, power, money, or fame. Leadership cannot be handed, assigned, or given to any person, and none of us can be made into a leader by taking a new assignment or moving to a new position. Leadership is not about titles, it’s about followers. A person is a leader because other people follow their example. Pure and simple.

The implications of this statement are profound. The most important one is that it establishes the existence of leadership at all levels of any organization, club, company, class, university, school, troupe, or collection of individuals. We all are potential leaders, and at any station in life or stage of your career you must accept the responsibility you have for influencing the actions and attitudes of those around you.

My goal in writing this book is to awaken you to the reality that you are a leader right now. You have tremendous power for change at your fingertips that you are probably not using. Becoming aware of that power is the first important step in using it. The next important step lies in focusing that power toward ends that will create a better

future, an abundant future, for the world. Adopting this philosophy is what differentiates a leader from an enlightened leader. I want you to be an enlightened leader.

## **Who is this book for?**

If you picked it up, it's probably for you. In general, my aim with this book is to reach anyone who will be part of shaping technology for the future. This is a very broad group of folks, so having a specific audience in mind is useful in terms of shaping a book that's fewer than a thousand pages and might actually contain some relevant information.

More particularly this book is written for young professionals in technical disciplines such as computer science, all the engineerings, chemistry, physics, biology, and so on. In my formal education and training, no one ever talked to me about leadership, management, technology policy, or any of the topics that I recognize now would have allowed me to appreciate my role in creating the future. As technical leaders, many of you will rise to senior levels in your organizations; your journey will be much more fulfilling—and rewarding for those around you—if you learn the lessons in this book before you start, rather than on your way. This is the book I wish I'd had when I started.

## **Who am I?**

Speaking of which, you are probably asking who I am, anyway.

I started in college as a major in electrical engineering and, after struggling for the first couple years, finally caught on and finished with a respectable GPA (though it was questionable there for a while). I finished just about when the market for engineers started its nosedive in the early nineties. Since I had no idea who I was or what I wanted to do with my career, I was pretty unimpressive during job interviews, and not surprisingly didn't get any offers. I decided to go to graduate school and change my direction.

(Actually, I decided to go to graduate school and hide out while I grew up, but “change my direction” sounds better in interviews.)

I picked a major that was new at the time, computational engineering. Computational engineering is a fusion curriculum that lays formal study in the numerical solution of mathematical problems alongside computer architecture on top of an undergraduate engineering, science, or mathematics degree. Computational engineers are specifically trained to understand science and engineering problems and the computers that are used to solve them; by understanding both sides of the problem, they are uniquely positioned to help create numerical software and to influence the creation of new computer hardware that gets stuff done. I did well in graduate school and, discovering that I was a generalist by nature, found an ideal home in computational engineering.

The thing that I have always found interesting about computers is that they are universal tools. Unlike the telescope and microscope, which benefited a few disciplines, the computer benefits all disciplines. I was particularly interested in the branch of computing dedicated to solving the largest science and engineering problems in the world, high performance computing (HPC; high performance computing is also sometimes referred to as supercomputing).

In 1994 I completed my Master’s degree and left school to work as a computational engineer in a large supercomputing center. I had the great fortune to work with a large group of very talented engineers, several of whom have taken special interest in me over the years and have given me invaluable guidance as mentors (though I didn’t use that word at the time; I’ll talk more about the importance of mentoring later). I served in a variety of positions in the center over the next several years, and at the age of 33 I was the director of one of the largest supercomputing centers in the country with nearly 100 employees and a budget in the tens of millions of dollars.

## **Yesterday I couldn't spell "director", and now I am one**

By the time I became the director I was technically competent, but knew practically nothing about leading or managing people and budgets. I did have something that ultimately proved to be more important: a frame of mind for looking at problems and dealing with other people in a way that led to new solutions and an open, enriching, creative professional environment for my team.

This frame of mind, or framework, or outlook, or *philosophy* is what the rest of this book is about. With this philosophy I have been able to work out the rest of what I didn't know, while at the same time empowering those around me to reach even higher levels of accomplishment. In the early years of my time as a director, I learned a lot of lessons the hardest way possible—at the expense of other people. I've tried to put those lessons into this book so that you can avoid some of my mistakes, or at least see them coming and learn as much as you can if they do trap you as they indeed trapped me.

## **Hey, your hair isn't gray!**

So, if you're doing the math, you'll have figured out that I'm now (in 2005) 36. Perhaps you're asking, "what on earth makes someone that young think he can write a book about leadership?"

It's a fair question. My driving reason is my goal to create a generation of enlightened leaders to serve as stewards for the technologies that will shape our future. This is important enough not to wait until I have (more) gray hair and the distinguished air of age. I have to get started now and get your attention before you get indoctrinated in the Way It's Always Been Done and we lose another generation.

The second reason lies in my target for this book. I am aiming at those of you either still in school or very early in your careers who have not already started to learn these lessons the hard way. I'm young enough to remember what starting a career is like, and how difficult the first lessons are on that journey. But I've been successful enough early enough in my career to know some of the things

to watch out for, and what lessons you need to learn early. Most of my peers are in their 50s; I'm not sure that I have a lot to offer someone at that stage of his life and career, and, in fact, I still spend a lot of my time learning the ropes from them. But I am positive that I have something to offer those of you either still in college or within the early stages of your career.

## **Start now!**

When you graduate from the lessons in this book, you'll be ready to grow the rest of your career on your own, but not by yourself. When you are just starting out, what you need most of all is a mentor. The word "mentor" is defined as a wise and trusted guide and advisor. We'll talk more about mentors later. You'll find them throughout your life in a number of places and forms, including people but also books and experiences that teach you new skills and points of view.

Unfortunately, nobody ever tells you straight out that you really can't develop fully on your own, so unless you just happen upon another enlightened leader who takes you under his or her wing, you'll drift until you recognize on your own this need for mentoring. Sometimes this takes years; for some, it never happens. This book is your mentor. It may be your first mentor.

These lessons apply to you right now. If you are still in school, you can begin applying the lessons and learning the skills we'll cover throughout this book. You can recognize yourself as a leader among your friends, peers, and classmates, and start behaving accordingly. You can take that speech class you planned to sleep through during the summer more seriously. You can search for opportunities to get exposure to leaders in your field and community.

The wonderful thing about getting started before your career officially starts is that you get to learn in a penalty-free environment. If you flub your first speech in front of a tour group for your physics department, there is not likely to be any lasting damage. If,

on the other hand, your first flubbed presentation is the big product pitch to the vice president of your company, you may do lasting damage to your career and your self-image. I absolutely guarantee that you will flub at least one presentation, tour, meeting, or report—get it out of the way early by starting early.

If you've already started your career, then it's especially important that you study and apply the lessons in this book. We all start somewhere, and early in your career bad habits and botched presentations are fairly easy to get over—they just get dismissed as newbie mistakes. The most important factor that will influence your future is your ability to demonstrate that you can learn from these mistakes and not repeat them over and over. All of the people that I've ultimately had to help move out of my organization had to be moved not solely because they failed or had a bad attitude—these can be fixed. They had to be moved because they had an inability to learn from past mistakes. Don't put yourself in this category. Learn and grow.

Whether you are just starting your technology career, or you haven't started yet, this book is for you. Start learning the lessons of enlightened leadership now.

## **The rest of this book**

The rest of this book is organized broadly into two sections. The first section covers the philosophy of the enlightened technology leader. Chapter 1 discusses the general principles of enlightened technology leadership while Chapter 2 talks about how those principles can be applied in the specific context of managing people.

The second section covers the skills you'll need in your career as an enlightened technology leader. Chapters 3 and 4 cover two of the most vital skills you'll need no matter what course your career takes: the ability to write and to speak with confidence, competence, and clarity. If you'd like to read out of order these chapters can be read independently of the others, but Chapter 4 relies

heavily on some of the key concepts from Chapter 3, so do at least skim that chapter before proceeding with Chapter 4. Chapter 5 discusses managing your career and daily performance from the perspective of viewing yourself as a brand.

Let's get started!

**Thanks for reading this excerpt from the new book “The Only Trait of a Leader.”**

If you're interested in learning more about this topic or the others covered in the book, please visit [www.onlytraitofaleader.com](http://www.onlytraitofaleader.com). There you can download samples of other chapters, or buy the entire book in PDF or print form.

I hope you've enjoyed reading this sample.