

ANDREW S. GROVE

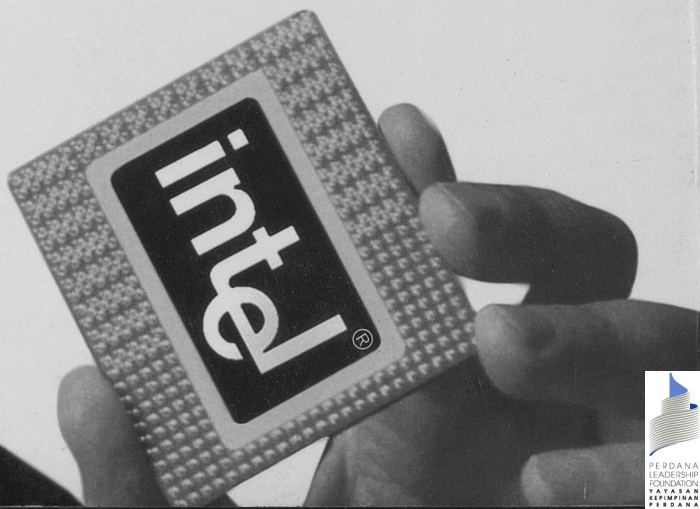
PRESIDENT AND CEO OF INTEL CORPORATION

ONLY THE PARANOID SURVIVE

■
HOW TO EXPLOIT THE
CRISIS POINTS THAT
CHALLENGE EVERY
COMPANY AND CAREER

■
"THIS TERRIFIC BOOK IS A DANGEROUS BOOK.
IT WILL MAKE PEOPLE THINK."

—PETER DRUCKER





Under Andy Grove's leadership, Intel has become the world's largest chipmaker, the fifth-most-admired company in America, and the seventh-most-profitable company among the Fortune 500. You don't achieve rankings like these unless you have mastered a rare understanding of the art of business and an unusual way with its practice.

Few CEOs can claim this level of consistent record-breaking success. Grove attributes much of this success to the philosophy and strategy he reveals in *Only the Paranoid Survive*—a book that is unique in leadership annals for offering a bold new business measure, and for taking the reader deep inside the workings of a major corporation.

Grove's contribution to business thinking concerns a new way of measuring the nightmare moment every leader dreads—the moment when massive change occurs and all bets are off. The success you had the day before is gone, destroyed by unforeseen changes that hit like a stage-six rapid. Grove calls such moments Strategic Inflection Points, and he has lived through several. When SIPs hit, all rules of business shift fast, furiously, and forever. SIPs can be set off by almost anything: mega-competition, an arcane change in regulations, or a seemingly modest change in technology.

Yet in the watchful leader's hand, SIPs can be an ace. Managed right, a company can turn a SIP into a

CONTINUED ON BACK FLAP

Under Andy Grove's leadership, Intel became the world's largest chipmaker and the most profitable company in America, and the most profitable company among the most profitable companies in the world. To achieve rankings like these, Grove had to have entered a rare understanding of the market and achieved an unusual way with its products.

Few CEOs can claim record-breaking success, but Grove's success, as revealed in *Only the Paranoid Survive*, is unique in leadership annals. It is a business measure, and for the first time, it looks inside the workings of a major corporation.

Grove's contribution to leadership concerns a new way of managing a company at a moment every leader dreams of. It is a time when massive change occurs and you had the day before yesterday. Grove calls such moments "Strategic Inflection Points," and he has lived through them. When you hit, all rules of business suddenly change. SIPs can be set off by a change in competition, an arcane change in technology, or a seemingly modest change in customer expectations.

Yet in the watchful leadership of Andy Grove, a company can survive. Managed right, a company can survive.

CONTINUED

Only the

How to Exploit the

Paranoid

Crisis Points That Challenge

Survive

Every Company and Career

Under Andy Grove
world's largest
company in Am
itable company
achieve ranking
tered a rare unde
an unusual way

Few CEOs c
record-breaking
this success to
reveals in *Only th*
unique in leaders
business measur
inside the working

Grove's contri
cerns a new w
moment every le
massive change o
cess you had the
unforeseen change
Grove calls such
Points, and he has
hit, all rules of bus
ever. SIPs can be s
competition, an ar
seemingly modest

Yet in the watchf
ace. Managed right

Other books by Andrew S. Grove

High Output Management

One-on-One with Andy Grove

Physics and Technology of Semiconductor Devices

CONTIN



PERDANA
LEADERSHIP
FOUNDATION
PERDANA
PERDANA

But in capitalist reality, as distinguished from its textbook picture, it is not (price) competition which counts but the competition from the new commodity, the new technology, the source of supply, the new type of organization . . . competition which . . . strikes not at the margins . . . of the existing firms but at their foundations and their very lives.

—Joseph A. Schumpeter,

Capitalism, Socialism and Democracy, 1942.

Under Andy Grove
world's largest
company in An
itable company
achieve ranking
tered a rare und
an unusual way

Few CEOs c
record-breaking
this success to
reveals in *Only th*
unique in leaders
business measur
inside the workin

Grove's contri
cerns a new w
moment every le
massive change o
cess you had the
unforeseen chang
Grove calls such
Points, and he has
hit, all rules of bus
ever. SIPs can be s
competition, an ar
seemingly modest e

Yet in the watch
ace. Managed right

CONTIN



Andrew S. Grove

Only the

How to Exploit the

Paranoid

Crisis Points That Challenge

Survive

Every Company and Career

CURRENCY



DOUBLEDAY

New York London Toronto Sydney Auckland

Under Andy Gro
world's largest
company in An
itable company
achieve ranking
tered a rare und
an unusual way

Few CEOs c
record-breaking
this success to
reveals in *Only t*
unique in leader
business measu
inside the worki

Grove's conta
cerns a new w
moment every l
massive change
cess you had th
unforeseen chan
Grove calls suc
Points, and he ha
hit, all rules of bu
ever. SIPs can be
competition, an a
seemingly modest
Yet in the watc
ace. Managed righ

CONTIN

A CURRENCY BOOK
PUBLISHED BY DOUBLEDAY
a division of Bantam Doubleday Dell Publishing Group, Inc.

1540 Broadway, New York, New York 10036
CURRENCY and DOUBLEDAY are trademarks of Doubleday, a division of
Bantam Doubleday Dell Publishing Group, Inc.

Third-party trademarks and brands are the property of their respective owners.

Book design by Chris Welch

Library of Congress Cataloging-in-Publication Data
Grove, Andrew S.

Only the paranoid survive: how to exploit the crisis points that challenge every
company and career / Andrew S. Grove. — 1st ed.

p. cm.

ISBN 0-385-48258-2

1. Organizational change.
2. Strategic planning.
3. Technological innovations—Economic aspects. I. Title.

HD58.8.G765 1996

658.4'06—dc20

96-13509

CIP

Copyright © 1996 by Andrew S. Grove

All Rights Reserved

Printed in the United States of America

October 1996

First Edition

1 3 5 7 9 10 8 6 4 2

Contents

| | |
|--|-----------|
| Preface: Only the Paranoid Survive | 1 |
| "Sooner or later, something fundamental in your business world will change." | |
| Chapter 1: Something Changed | 9 |
| "New rules prevailed now—and they were powerful enough to cost us nearly half a billion dollars." | |
| What Happened to Us | 18 |
| "That Guy Is Always the Last to Know" | 21 |
| Chapter 2: A "10X" Change | 25 |
| "What such a transition does to a business is profound, and how the business manages this transition determines its future." | |
| The Six Forces Affecting a Business | 27 |
| A "10X" Force | 30 |
| The Strategic Inflection Point | 32 |
| Chapter 3: The Morphing of the Computer Industry | 37 |
| "Not only has the basis of computing changed, the basis of competition has changed too." | |
| Before the Strategic Inflection Point | 39 |
| After the Strategic Inflection Point | 45 |
| Winners and Losers | 48 |
| The New Rules of the Horizontal Industry | 51 |

Chapter 4: They're Everywhere

53

"Strategic inflection points are not a phenomenon of the high-tech industry, nor are they something that only happens to the other guy."

| | | |
|--|--|----|
| Under Andy Grove's leadership, Intel became the world's largest semiconductor company in America. Intel is the most valuable company in the world, and Intel has achieved a ranking that is rarely achieved by any other company in the world in an unusual way. | "10X" Change: Competition | 56 |
| Few CEOs in the world have achieved record-breaking success like Andy Grove's. This success is revealed in <i>Only the Paranoid Survive</i> , a unique leadership business measure inside the workplace. | <i>Wal-Mart: An overwhelming force in town</i> | 56 |
| Grove's concerns a new moment every massive change process you had the unforeseen change. Grove calls such Strategic Inflection Points, and he has hit, all rules of business ever. SIPs can be competition, an seemingly modest | <i>Next: The software company</i> | 57 |
| Yet in the watchace. Managed right | "10X" Change: Technology | 60 |
| | <i>Sound takes over silent movies</i> | 61 |
| | <i>Upheaval in the shipping industry</i> | 62 |
| | <i>The PC revolution: A tale of denial</i> | 63 |
| | "10X" Change: Customers | 65 |
| | <i>Changing tastes in cars</i> | 66 |
| | <i>Attitude shifts</i> | 66 |
| | <i>The double whammy in supercomputers</i> | 67 |
| | "10X" Change: Suppliers | 68 |
| | <i>Airlines flex their muscles</i> | 68 |
| | <i>The end of second sourcing</i> | 69 |
| | "10X" Change: Complementors | 71 |
| | "10X" Change: Regulation | 71 |
| | <i>The demise of patent medicines</i> | 72 |
| | <i>The reordering of telecommunications</i> | 72 |
| | <i>Privatization</i> | 75 |

Chapter 5: "Why Not Do It Ourselves?"

79

"The memory business crisis—and how we dealt with it—is how I learned the meaning of a strategic inflection point."

| | |
|---|----|
| Entering Our Strategic Inflection Point | 85 |
| The Route to Survival | 89 |
| Looking Back | 94 |

| | |
|--|------------|
| Chapter 6: “Signal” or “Noise”? | 99 |
| <p>“How do we know whether a change signals a strategic inflection point? The only way is through the process of clarification that comes from broad and intensive debate.”</p> | |
| Is X-ray Technology a “10X” Force? | 101 |
| RISC versus CISC | 103 |
| Is It or Isn’t It? | 106 |
| Helpful Cassandras | 108 |
| Avoiding the Trap of the First Version | 112 |
| Debate | 114 |
| Arguing with the Data | 116 |
| Fear | 117 |
| | |
| Chapter 7: Let Chaos Reign | 121 |
| <p>“Resolution comes through experimentation. Only stepping out of the old ruts will bring new insights.”</p> | |
| The Touchy-Feely Issues | 123 |
| The Inertia of Success | 127 |
| Strategic Dissonance | 128 |
| Experimentation | 129 |
| The Business Bubble | 131 |
| A New Industry Map | 134 |
| | |
| Chapter 8: Rein in Chaos | 137 |
| <p>“Clarity of direction, which includes describing what we are going after as well as describing what we will <i>not</i> be going after, is exceedingly important at the late stage of a strategic transformation.”</p> | |
| Traversing the Valley of Death | 140 |
| Redeploying Resources | 144 |
| Leading Via Strategic Actions | 146 |
| The Clarity Imperative | 152 |
| Adjusting to the New | 157 |

| | |
|--|------------|
| Dynamic Dialectic | 160 |
| The Other Side of the Valley | 163 |
| Chapter 9: The Internet: Signal or Noise? Threat or Promise? | 165 |
| "Anything that can affect industries whose total revenue base is many hundreds of billions of dollars is a big deal." | |
| What Is the Internet Anyway? | 167 |
| Bits and Stolen Eyeballs | 172 |
| What About Us? | 177 |
| Threat or Promise? | 179 |
| What Do We Do? | 181 |
| Notes | 185 |
| Index | 203 |

Acknowledgments

The ideas of this book have their origin in two sets of experiences. First and foremost, they are based on my years in management roles at Intel, during which I have experienced a number of strategic inflection points. Second, for the last five years, I have cotaught a course in strategic management at the Stanford University Graduate School of Business where, through the eyes of my students, I got to relive some of my experiences, as well as the experiences of others. The first represents a kind of *in vivo* lesson about managing change; the second, its *in vitro* counterpart.

Correspondingly, my thanks go to those who worked alongside me: my fellow managers at Intel and my students at Stanford. Special thanks go to my coteacher, Professor Robert Burgelman, who, in addition to being my mentor in the art of case teaching, helped me clarify and amplify many of my thoughts.

I had no intention of writing a book on this subject until Harriet Rubin, from Doubleday, sought me out and convinced me that I should do so. Her understanding of the subject, her insistence on clarity and her elaboration of the basic ideas have been very helpful in the development of the manuscript.

Thanks are due to Robert Siegel for his unceasing efforts in locating source reference material for many of my examples, refer-

ence material for the notes in the back of this book, and for his nitpicky eyes that ferreted out numerous errors and inconsistencies.

The most significant credit goes to Catherine Fredman; who helped me throughout the long process of transforming a precis into a book. Her understanding of my subject matter, her ability to follow my thought processes, and her incredible organizational skills were immensely valuable. Particularly helpful were her insights into the parallels between individuals' careers and corporate strategy. And her sense of humor has helped me skirt many a pothole.

Last—and definitely not least—my gratitude goes to my wife, Eva, who did double duty. She supported me through decades of navigating changes, many of them quite profound and correspondingly capable of taking their toll. Then she supported me again as I relived some of these events in the pages of this book—and she even helped make sure that my text is clear.

Santa Clara
February 1996

Preface

Only the Paranoid Survive

“Sooner or later,
something
fundamental in your
business world
will change.”

I'm often credited with the motto, "Only the paranoid survive." I have no idea when I first said this, but the fact remains that, when it comes to business, I believe in the value of paranoia. Business success contains the seeds of its own destruction. The more successful you are, the more people want a chunk of your business and then another chunk and then another until there is nothing left. I believe that the prime responsibility of a manager is to guard constantly against other people's attacks and to inculcate this guardian attitude in the people under his or her management.

The things I tend to be paranoid about vary. I worry about products getting screwed up, and I worry about products getting introduced prematurely. I worry about factories not performing well, and I worry about having too many factories. I worry about hiring the right people, and I worry about morale slacking off.

And, of course, I worry about competitors. I worry about other people figuring out how to do what we do better or cheaper, and displacing us with our customers.

But these worries pale in comparison to how I feel about what I call strategic inflection points.

I'll describe what a strategic inflection point is a bit later in this book. For now, let me just say that a strategic inflection point is a time in the life of a business when its fundamentals are about to change. That change can mean an opportunity to rise to new heights. But it may just as likely signal the beginning of the end.

Strategic inflection points can be caused by technological change but they are more than technological change. They can be caused by competitors but they are more than just competition. They are full-scale changes in the way business is conducted, so that simply adopting new technology or fighting the competition as you used to may be insufficient. They build up force so insidiously that you may have a hard time even putting a finger on what has changed, yet you know that something *has*.

Let's not mince words: A strategic inflection point can be deadly when unattended to. Companies that begin a decline as a result of its changes rarely recover their previous greatness.

But strategic inflection points do not always lead to disaster. When the way business is being conducted changes, it creates opportunities for players who are adept at operating in the new way. This can apply to newcomers or to incumbents, for whom a strategic inflection point may mean an opportunity for a new period of growth.

You can be the subject of a strategic inflection point but you can also be the cause of one. Intel, where I work, has been both. In the mid-eighties, the Japanese memory producers brought upon us an inflection point so overwhelming that it forced us out of memory chips and into the relatively new field of microprocessors. The microprocessor business that we have dedicated ourselves to has since gone on to cause the mother of all inflection points for other companies, bringing very difficult times to the classical mainframe computer industry. Having both been affected by strategic inflection points and having caused them, I can safely say that the former is tougher.

I've grown up in a technological industry. Most of my experiences are rooted there. I think in terms of technological concepts and metaphors, and a lot of my examples in this book come from what I know. But strategic inflection points, while often brought about by the workings of technology, are not restricted to technological industries.

The fact that an automated teller machine could be built has changed banking. If interconnected inexpensive computers can be used in medical diagnosis and consulting, it may change medical care. The possibility that all entertainment content can be created, stored, transmitted and displayed in digital form may change the entire media industry. In short, strategic inflection points are about fundamental change in any business, technological or not.

We live in an age in which the pace of technological change is pulsating ever faster, causing waves that spread outward toward all industries. This increased rate of change will have an impact on you, no matter what you do for a living. It will bring new competition from new ways of doing things, from corners that you don't expect.

It doesn't matter where you live. Long distances used to be a moat that both insulated and isolated people from workers on the other side of the world. But every day, technology narrows that moat inch by inch. Every person in the world is on the verge of becoming both a coworker and a competitor to every one of us, much the same as our colleagues down the hall of the same office building are. Technological change is going to reach out and sooner or later change something fundamental in your business world.

Are such developments a constructive or a destructive force? In my view, they are both. And they are inevitable. In technology, whatever *can* be done *will* be done. We can't stop these changes. We can't hide from them. Instead, we must focus on getting ready for them.

The lessons of dealing with strategic inflection points are similar whether you're dealing with a company or your own career.

If you run a business, you must recognize that no amount of formal planning can anticipate such changes. Does that mean you shouldn't plan? Not at all. You need to plan the way a fire department plans: It cannot anticipate where the next fire will be, so it has to shape an energetic and efficient team that is capable of

responding to the unanticipated as well as to any ordinary event. Understanding the nature of strategic inflection points and what to do about them will help you safeguard your company's well-being. It is your responsibility to guide your company out of harm's way and to place it in a position where it can prosper in the new order. Nobody else can do this but you.

If you are an employee, sooner or later you will be affected by a strategic inflection point. Who knows what your job will look like after cataclysmic change sweeps through your industry and engulfs the company you work for? Who knows if your job will even exist and, frankly, who will care besides you?

Until very recently, if you went to work at an established company, you could assume that your job would last the rest of your working life. But when companies no longer have lifelong careers themselves, how can they provide one for their employees?

As these companies struggle to adapt, the methods of doing business that worked very well for them for decades are becoming history. Companies that have had generations of employees growing up under a no-layoff policy are now dumping 10,000 people onto the street at a crack.

The sad news is, nobody owes you a career. Your career is literally your business. You own it as a sole proprietor. You have one employee: yourself. You are in competition with millions of similar businesses: millions of other employees all over the world. You need to accept ownership of your career, your skills and the timing of your moves. It is your responsibility to protect this personal business of yours from harm and to position it to benefit from the changes in the environment. Nobody else can do that for you.

Having been a manager at Intel for many years, I've made myself a student of strategic inflection points. Thinking about them has helped our business survive in an increasingly competitive environment. I'm an engineer and a manager, but I have always had an urge to teach, to share with others what I've figured

out for myself. It is that same urge that makes me want to share the lessons I've learned.

This book is not a memoir. I am involved in managing a business and deal daily with customers and partners, and speculate constantly about the intentions of competitors. In writing this book, I sometimes draw on observations I have made through such interactions. But these encounters didn't take place with the notion that they would make it into any public arena. They were business discussions that served a purpose for both Intel and others' businesses, and I have to respect that. So please forgive me if some of these stories are camouflaged in generic descriptions and anonymity. It can't be helped.

What this book *is* about is the impact of changing rules. It's about finding your way through uncharted territories. Through examples and reflections on my and others' experiences, I hope to raise your awareness of what it's like to go through cataclysmic changes and to provide a framework in which to deal with them.

As I said, this book is also about careers. As businesses are created on new foundations or are restructured to operate in a new environment, careers are broken or accelerated. I hope this book will give you some ideas of how you can shepherd your own career through these difficult times.

Let's start by parachuting into the middle of a strategic inflection point, when something is changing in a big way, when something is different, yet when you're so busy trying to survive that the significance of the change only becomes clear in retrospect. Painful as it is, let me relive the story of a problem that Intel had with our flagship device, the Pentium processor, in the fall of 1994.

Something Changed

“New rules prevailed
now—and they were
powerful enough to
cost us nearly half a
billion dollars.”

I teach a class in strategic management at Stanford University's business school as a part-time departure from my job as president and CEO of Intel Corporation. The way my coteacher, Professor Robert Burgelman, and I normally grade the students is to go through the class roster right after each session and assess each student's class performance while it is still fresh in our memories.

The process was taking a little longer than usual on the morning of November 22, 1994, the Tuesday before Thanksgiving, and I was about to excuse myself to call my office when the phone rang. It was my office calling me. Our head of communications wanted to talk to me—urgently. She wanted to let me know that a CNN crew was coming to Intel. They had heard of the floating point flaw in the Pentium processor and the story was about to blow up.

I have to backtrack here. First, a word about Intel. Intel in 1994 was a \$10 billion-plus producer of computer chips, the largest in the world. We were twenty-six years old and in that period of time we had pioneered two of the most important building blocks of modern technology, memory chips and microprocessors. In 1994, most of our business revolved around microprocessors and it revolved very well indeed. We were very profitable, growing at around 30 percent per year.

Nineteen ninety-four was a very special year for us in another way. It was the year in which we were ramping our latest-genera-

positive force to win in the marketplace and emerge stronger than ever.

To achieve that level of mastery over change, you must know its properties inside and out. Grove addresses questions such as these: What are the stages of these tidal waves? What sources do you turn to in order to foresee dangers before trouble announces itself? When threats abound, how do you deal with your emotions, your calendar, your career—as well as with your most loyal managers and customers, who may cling to tradition?

No stranger to risk, Grove examines his own record of success and failure, including the drama of how he navigated the events of the Pentium flaw, which threatened Intel in a major way, and how he is dealing with the SIP brought on by the Internet. The work of a lifetime of reflection, *Only the Paranoid Survive* is a contemporary classic of leadership skills.



ANDREW S. GROVE emigrated to the United States from Hungary in 1956. Grove participated in the founding of Intel, and became its president in 1979 and chief executive in 1987. Grove also teaches at the Stanford University Graduate School of Business.

Visit the Currency Forum on the Web at:
<http://www.bdd.com/currency>

Printed in the U.S.A.
1096



ANDREW S. GROVE

ONLY THE PARANOID SURVIVE

"Andy Grove masterfully uses his own experiences and those of Intel to define and analyze the Strategic Inflection Points in a growing enterprise. Anyone who has an interest in the success of their business should read this most insightful book by one of America's most innovative entrepreneurs."

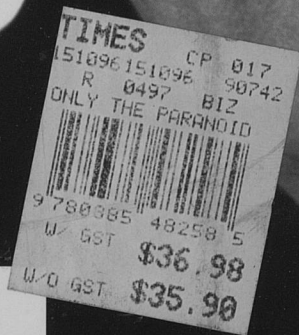
—MICHAEL S. OVITZ, PRESIDENT OF THE WALT DISNEY COMPANY

"Andy explains in this book, with modesty that cannot conceal his brilliance, how he has led Intel through changes and challenges that many companies could not cope with. I am grateful for his insights on the topsy-turvy world of the communications revolution; the country will benefit from his vision."

—REED HUNT, CHAIRMAN, FEDERAL COMMUNICATIONS COMMISSION

"This book is about one super-important concept. You must learn about Strategic Inflection Points, because sooner or later you are going to live through one."

—STEVE JOBS, CEO, PIXAR ANIMATION STUDIOS



US \$27.50 / \$37.95 CAN

ISBN 0-385-48258-2



52750



9 780385 482585

