

# A Dozen Things I've Learned from Andy Grove about Business and Strategy

July 29, 2016

“Andrew S. Grove was born in Budapest, Hungary in 1936. He graduated from the City College of New York in 1960 with a Bachelor of Chemical Engineering degree and received his Ph.D. from the University of California, Berkeley in 1963. Upon graduation, he joined the Research and Development Laboratory of Fairchild Semiconductor and became Assistant Director of Research and Development in 1967. In July 1968, Grove participated in the founding of Intel Corporation. In 1979 he was named President, and in 1987 Chief Executive Officer.”

1. **“Success breeds complacency. Complacency breeds failure. Only the paranoid survive.” “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.”** Grove believed that some degree of fear is healthy for any business, especially if the businesses has been successful. Two business school professors who have studied Grove point out: “A touch of paranoia—a suspicion that the world is changing against you — is what Grove prescribes.” *The Economist* magazine describes Grove’s application of what one might call a “paranoia principle” as follows: “[Grove] argues that every company will face a confluence of internal and external forces, often unanticipated, that will conspire to make an existing business strategy unviable. In Intel’s case, such a ‘strategic inflection point’ arose because its memory-chip business came under heavy assault from new Japanese rivals willing to undercut any price Intel offered.” Strategic inflections points are created when a business faces an order-of-magnitude change in their environment. The two

professors argue: “Grove offers a ‘six forces’ framework for identifying strategic inflection points. He starts with Michael E. Porter’s five-forces model: customers, suppliers, competitors, potential competitors, and providers of substitutes. He then adds complementarity to the strategy map.” Grove wanted to be sure that if there was the potential for convex outcomes Intel would be well positioned to benefit and if there was the potential for a concave outcomes Intel would be well positioned to avoid harm. Grove identified a range of factors he worried about in in his book *Only the Paranoid Survive*: **“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.”** Grove recognized that competitors will inevitably be attracted to any source of profit and that increasing competition will drive returns down toward the opportunity cost of capital. What was once profit (producer surplus) is inevitably eventually transformed by competition into consumer surplus. This shift of value from producer to consumer is now new. What is new since the arrival of Moore’s law and the proliferation of digital networks is how fast this transformation of profit into consumer surplus happens. It is increasingly hard for any business to maintain pricing power in the face of (1) technological progress and (2) intense and rising levels of global competition. Companies are finding it hard to meet their investment hurdle rates give this phenomenon and so cash often piles up or is distributed rather than being reinvested. People involved in a real business know that innovation often reduces rather than increases profit. Consumers always benefit from innovation but GDP may actually shrink as a result of the innovation. Charlie Munger put it this way once: “There are all kinds of wonderful new inventions that give you nothing as owners except the opportunity to spend a lot more money in a business that’s still going to be lousy. The money still won’t come to you. All of the advantages from great improvements are going to flow through to the customers.” The point here is simple: some innovations create a moat due to the presence of factors like network effects and some innovations destroy moats. More consumer benefit is wonderful for society, but so is some healthy level of producer surplus since this is what powers a healthy growing economy.

2. **“Technological change is going to reach out and sooner or later change something fundamental in your business world.”** Once upon a time there was a distinction between technology businesses and other businesses. Today every business is a technology business. As a result if this shift, a technological change can quickly create a strategic inflection point for any business. For example, John Deere is no longer a supplier of farm equipment but rather a provider of integrated productivity solutions for agriculture. Ford is no longer just a supplier of automobiles. Companies like John Deere and Ford increasingly find themselves in competition with other businesses that they never thought of before as competitors and also as partners with firms that they never thought they would partner with. The wrong response to a strategic inflection point proved to be the undoing of companies like Kodak, Nortel and Motorola. The right response can create powerful new sources of profit for a business.

3. **“If existing management want to keep their jobs when the basics of the business are undergoing profound change, they must adopt an outsider’s intellectual objectivity. They must do what they need to do to get through the strategic inflection point unfettered by any emotional attachment to the past.”** “I do have a lot of strong feelings. When it gets to one of those, I guess I state them pretty forcefully. I don’t thrash out and yell (but) maybe some people think it sounds like yelling.” Grove believed in “constructive confrontation.” To put it bluntly, an encounter with Grove was often intense. He wanted issues brought out into the open, fully discussed and decisions made in a very timely way. In an interview in Chicago Tribune in 1996 he said: **“We encourage our people to deal with problems without flinching. At its best, the method means that people deal with each other very bluntly.”** I am quite familiar with business discussions reflecting this level of intensity. I have been in numerous meetings in which the people involved argued their positions so vociferously that spittle was flying back and forth across a conference table. I see less of this behavior than I did in the 1980s and 1990s but it still happens sometimes. What most people do not understand about meetings like this is that after the issues have been

“fully and candidly discussed” the people involved are capable of making a decisions at the conclusion of the meeting and the doing something like getting hamburgers together as if the intense confrontation never happened. It also surprises some people to learn that when someone important in the technology industry says nothing when you are making a presentation it can mean that they think you are an idiot. In technology, it is often the case that the more someone confronts what you are saying the more they may believe what you are saying is important or interesting. If you are not familiar with this bluntly confrontational environment, it can be disconcerting. As just one example, Larry Ellison and Steve Jobs were at a dinner once in which Grove said he would not have hired either of them since they were “flakes.” Ellison recalls: “Both Steve and I admired and respected Andy. We enjoyed all of our precious time with him, including the memorable and characteristic abuse.” I am not saying that all technology managers are confrontational. I worked for many years for Craig McCaw and he was the polar opposite of Grove when it came to blunt confrontations. Craig McCaw is the politest and most private person I have ever known. He just has a different style than someone like Grove. What McCaw and Grove do share is mastery at confronting their own ideas. This self-confrontational approach can be an effective way to deal with: (1) confirmation bias and (2) avoiding situations where the CEO does not hear the truth since his or her staff is unwilling to deliver bad news or push back on the CEO’s opinions. I agree with Charlie Munger that an effective manager or investor knows the other side of the argument better than the people who he or she disagrees with. Since most mistakes are psychological or emotional, attachment of these factors to the past is banished by the most effective managers since that baggage is what an accountant would refer to as “sunk.”

4. **“Intel [is] a data driven company and the phrase is, ‘Don’t argue with the emotions, argue with the data.’”**  
**“Measurement against a standard makes you think through WHY the results were what they were.** Former Intel executive Pat Gelsinger said once: “If you went into a meeting [with Grove], you’d better have your data; you’d better have your opinion; and if you can’t defend your opinion, you have no right to be there.” Grove joked at his last shareholder meeting about his drive to obtain the very best data: **“I didn’t enjoy myself 100 percent of the time.**

**According to my statistical analysis, it was about 80 percent.”** The amount of data that is available today is unprecedented and modern machine learning tools that can analyze that data are evolving at a breakneck pace. Grove was an admirer of other businesses that have learned to use data well, For example, he said once: **“Amazon is the preeminent pioneer in building a new way of doing commerce: personalized, database-driven commerce, where the big value is not in the purchase fulfillment, but in knowing as much about a customer base of ten or twenty million people as a corner store used to know about a customer base of a few hundred. In today’s mass-merchandising world, that’s largely gone; Amazon is trying to use computer technology to re-establish it.”** Moats are increasingly resulting from the ability of a business to apply analytics to the data that their business generates. There is a feedback loop at work: the more successful a business is the more data they generate, the more successful that the business is [repeat].

5. **“Most companies don’t die because they are wrong; they die because they don’t commit themselves. They fritter away their momentum and their valuable resources while attempting to make a decision. The greatest danger is standing still.”** That decisions get made in a timely way as part of Grove’s “constructive confrontation” is critical. Eugene Kleiner once said: **“The more difficult the decision, the less it matters what you choose.”** What Grove and Kleiner mean is that sometimes you are better off making a decision and living with it than agonizing over the decision for a long period and as a result experiencing a significant delay. What can kill a shark is when it stops moving in the water and a business today can be killed in much the same way. Business momentum matters since feedback effects are so powerful. If competitors harness new network effects or other phenomena while a business is unable or unwilling to make a decision, the result can be very harmful or even deadly.

6. **“I think it is very important for you to do two things: act on your temporary conviction as if it was a real conviction; and when you realize that you are wrong,**

**correct course very quickly.” “Investment decisions and personal decisions don’t wait for the picture to be clarified.” “It’s not that you shouldn’t plan but you should not regard your plans to be anything more than a baseline model of what might happen.”** This point made by Grove is consistent with the “strong opinions, loosely held” idea that I have written about before. We all face a world filled with risk, uncertainty and ignorance. The best approach is to have strong opinions that reflect the best research and data possible, but that can be changed as new and better data becomes available. The world is more connected every day by digital networks and this creates phenomena that feed back on themselves which creates unpredictable turbulence. Outcomes are much more likely to be determined by genuinely complex processes than in the past. In other words, the world will evolve in ways that many businesses will not anticipate since the business environment is increasingly nonlinear. If a business is not preparing for this level of change to increase in both scope and magnitude, it may get caught in a turbulent riptide of change and find its business battered or even destroyed.

7. **“You need to try to do the impossible, to anticipate the unexpected. And when the unexpected happens, you should double the efforts to make order from the disorder it creates in your life. The motto I’m advocating is — Let chaos reign, then rein chaos. Does that mean that you shouldn’t plan? Not at all. You need to plan the way a fire department plans. It cannot anticipate fires, so it has to shape a flexible organization that is capable of responding to unpredictable events.” “There are two options: adapt or die.”** Dwight Eisenhower is famous for saying: “In preparing for battle I have always found that plans are useless, but planning is indispensable.” Survival in the long term is determined by adaptability, rather than size or strength. Using the preparation process to get ready to change that will produce surprising and sometimes shocking outcomes is wise. Expecting to be able to successfully respond to change by pulling out a prepared plan is a triumph of hope over experience. Denial is not just the name of a river in Egypt, it is the leading cause of the death of businesses.

8. **“The new environment dictates two rules: first, everything happens faster; second, anything that can be done will be done, if not by you, then by someone else, somewhere.”** A digital connected world is an accelerated world. Everything moves faster now due the advance of technology and networks. Everyone has better information and that information is dispersed faster than ever and so any advantage a business has that is merely better operational effectiveness can be copied far quicker. The speed at which a new competing business can be created has never been faster. The ability of businesses to compete from half way around the world has never been easier. Accelerating these phenomena even more is that fact that capital for genuinely good idea is not scarce. As Professor Michael Porter points out, operational effectiveness is very important, but it is not a strategy. Strategy is about what a business does differently than its competitors to create a sustainable competitive advantage. What does your business do differently that will create what Warren Buffett calls a moat against competitors? If you have a moat it is more valuable than ever since they are scarce, but also more at risk that ever before too.
9. **“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.” “You have no choice but to operate in a world shaped by globalization and the information revolution.”** Moats have never been under more threat. Globalization and innovation have never been stronger as driver of change. The impact of globalization is taking a front seat in the world of policy and business today. Some people are now arguing that globalization has gone too far. The reality may be, however, that it may not be possible to put that genie fully back in the bottle. Since globalization is to some degree here to stay no matter how the political environment changes, many aspects of society will need to be rethought as a result. The idea that the world can change as quickly as it is now, but that societal institutions can stay the same is unrealistic. This is equally true for a business.

10. **“You have to understand what it is that you are better at than anybody else and mercilessly focus your efforts on it.”** Comparative advantage is the ability of an individual or group to engage in a particular economic activity (such as manufacturing a product or writing software) more efficiently than another activity. Professor Michael Porter argues “the essence of strategy is choosing a unique and valuable position rooted in systems of activities that are much more difficult to match.” Grove is saying that a business should find this comparative advantage and FOCUS resources on it with passion. Business that try to do everything end up doing close to nothing. Grove said once on this point: **“A question that often comes up at times of strategic transformation is, should you pursue a highly focused approach, betting everything on one strategic goal, or should you hedge? Mark Twain hit it on the head when he said, Put all of your eggs in one basket and WATCH THAT BASKET.”** As Mark Cuban has said you can’t diversify your way into knowing what you are doing.
11. **“The Internet doesn’t change everything. It doesn’t change supply and demand.”** Charlie Munger made a similar point when he said the Internet “increases efficiency, but lots of things increase efficiency without increasing profits. It is way more likely to make American businesses less profitable than more profitable. This is perfectly obvious, but very little understood.” Without a moat against competition that places some limits on the supply of what you sell, profit will not arrive. Warren Buffett said at the last Berkshire shareholder meeting that microeconomics defines what a business is and the Internet does not change the fundamentals of microeconomics. Grove has said on this point of microeconomics: **“There is a time-dimension involved in the adjustment of one system to another. And by the time a supply-and-demand imbalance develops in one area of the economy, you can be very much out of phase with what is happening elsewhere. In physics, the equivalent would be unstable oscillations; in medicine, it would be heart palpitations. Economists don’t bother with that. They take one picture in a steady state, and another picture in a**

**steady state, and somehow they think nature will smooth everything out. Often it does, but just as often it does not.”**

12. **“Technology will always win. You can delay technology by legal interference, but technology will flow around legal barriers.” “Technology happens, it’s not good, it’s not bad. Is steel good or bad?”** Technology will always find a way to route around obstacles. It is a question of when barriers to the adoption of technology will be circumvented not whether it will happen. Technology itself is morally agnostic. Society must learn to use it in ways that are beneficial. William Gibson agrees with Grove on this point: “I think that technologies are morally neutral until we apply them. It’s only when we use them for good or for evil that they become good or evil.”
-