With All This Intelligence, Why Don’t We Have Better Strategies?

Mark Chussil
Founder and CEO
Advanced Competitive Strategies, Inc.

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Never before have there been so many well-educated, highly motivated, professional managers. We tap business intelligence, competitive intelligence, and market intelligence. We mine data unprecedented in breadth, timeliness, quality, and quantity. We use sophisticated techniques to target customers, optimize operations, and manage capital. We work in a society that rewards us well when we achieve our goals. So why, with all our skills, data, enthusiasm, opportunities, knowledge, motivation, and power, do we produce intelligent failures?

By “failure” I don’t mean the spectacular crashes that make the front pages, and I specifically don’t mean those due to chicanery. I mean the invisible failures behind the targets we don’t hit, the promotions we don’t get, the market shares we don’t hold, and the profits we don’t earn. These failures are unremarkable because they are common. That they are common, though, does not make them any less painful or disappointing.

The 1975 Fortune 500 lists huge, respected corporations such as Esmark, Gulf & Western, Polaroid, and Singer that have essentially vanished. They didn’t vanish overnight and they didn’t vanish voluntarily. Even some survivors from 1975 are studies in falling short rather than flying high. Sears, Roebuck was founded in 1893 and moved into the Sears Tower in 1973, when Wal-Mart was a corporate toddler. Today, Wal-Mart is five times the size of Sears, and Sears has left the building.

We hear plenty of explanations. The tough economy, short-sighted management, finicky customers, strait-jacket regulations, unforgiving Wall Street, slimy corporate politics, stingy corporate budgets. We even give some of the explanations catchy names, such as “hypercompetition,” that suggest the world has changed in some fundamental way.

Saying that we have shifted to a world of hypercompetition is like saying that the force of gravity has grown because a jet aircraft can hit the ground faster than a turboprop. Yes, fortunes are
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won and lost with stunning speed, and some involve breathtaking numbers. However, the underlying causes are not new, although the effects are louder and more visible in today’s hypermedia.

No one intends to make bad strategy decisions. At our core we are responsible managers, concerned citizens, and thoughtful human beings. To create smart strategies, we don’t need to exhort ourselves to “do better;” we already want to do better. Rather, we must understand what leads well-equipped, well-educated, well-intentioned strategists to choose bad strategies.

**Good strategy decisions**

Why do upstarts beat incumbents? It happens so often it seems obvious that they should. Yet it is the incumbents, not the upstarts, who usually have (at least on paper) overwhelming advantages. They have experience, infrastructure, capital, relationships, brands, economies of scale, data, and more. The defeat of an incumbent by upstarts is usually an intelligent failure. The subsequent transformation of an upstart into an incumbent — all incumbents were upstarts at one time — is another.

Interestingly, incumbents’ advantages over upstarts usually include having much more of precisely what strategists would say are required for good strategy decisions. What’s needed for a good strategy decision? Based on what I’ve heard strategists say, I suspect most strategists’ wish-lists would include items like these:

- Accurate, timely data about the past and present.
- Expert forecasts about the future of the market and competition.
- Enough time to analyze those data thoroughly.

So, if upstarts have less of those things than incumbents do, does that mean they’re making bad strategy decisions? I don’t think so, and I doubt that incumbents would think they’d improve their strategy decisions by ignoring their data, forecasts, and tools. Instead, let’s tackle a subtly
different question. What’s needed for a person to make a good strategy decision? My nominations:

■ Good decision-making tools.
■ Good decision-making attitudes.
■ A compensation system that rewards good strategy decisions.

In my experience facilitating and observing better strategy decisions with dozens of Fortune 500 companies, I’ve found that strategists often believe, at first, that they’ll get better strategy decisions by focusing on better analysis of better data; that is, by focusing on the first list. I’ve learned, however, that the greater opportunity is in the second list.

The two lists are qualitatively different. In that difference is a critical point: better strategy decisions won’t come from more of the numbers we’ve already got in vast abundance. (Ask your local market researcher to show you his or her library.) It’s a rare strategy failure that would have been prevented by an extra decimal point. Better strategy decisions come from a qualitative shift in how we use numbers, how we generate strategy ideas, and how we align individuals’ and corporate goals. Upstarts often do have advantages there.

**The wrong model**

Garbage in, garbage out. People often think that what makes a model wrong is inaccuracy in the data fed into it. I suggest that what can also make a model wrong is the structure of the model.

Astronomers devised increasingly complex calculations to reconcile the actual motion of the sun as it orbited the earth with their models’ predictions. Of course, they couldn’t refine their geocentric model enough to make it work. It was the wrong model to begin with.

We hit the same problem when we use models based on trend lines or financial accounting to make strategy decisions. We pour intelligence into them, yet they still fail. They fail because they’re the wrong model to begin with.
VisiCalc was the first electronic spreadsheet. Its sales grew rapidly, and you could create a trend line to project its future sales. Then Lotus 1-2-3 entered the market, and VisiCalc’s trend line didn’t fit any more. You could create a trend line for 1-2-3’s future sales and it would probably fit pretty well... until Microsoft Excel wiped it out.

Trend lines do not cause things; they describe things (specifically, how things correlate with time). Projecting future results with a trend-line model makes a critical, and usually invisible, assumption: the conditions of the past will persist into the future. That’s the wrong model for strategy decisions.

According to financial statements, nothing much happened on the days Jack Welch left GE or Steve Jobs returned to Apple. Why? Because there’s no entry on an income statement or balance sheet for “departure or return of visionary leader.”¹ Nothing much happened at Microsoft on the day it released its first version of Windows, to Sony on the day the first VHS machine confronted BetaMax, or to Kodak on the day digital cameras hit the market. There are no entries on the financial statements for product innovation, new competition, or declining market. Of course the effects of those events all eventually were manifest on the financials; however, the precipitating causes were, and still are, financially invisible.

Trend lines and accounting formulas simply weren’t designed to model profits, market shares, competition, and customers in the future. The only reason it appears that they can forecast the future is that many strategy decisions are incremental in nature, which seems to validate their predictions. When there is change in a market — or when a competitor does something unexpected (unexpected because conventional tools tend to hide competitors’ moves, not highlight them) — their logic breaks down, and we have an intelligent failure. In other words, our most-common tools (seem to) work when nothing much is going on, and break down just when we need them most.

¹ There is, arguably, such an impact on a company’s stock price. However, even if there is such an impact, it’s due to people’s judgments, not to an analysis using generally accepted accounting principles.
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Have a look at the typical spreadsheet below as we uncover some other wrong-model problems.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales-growth assumption</td>
<td>4.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation-rate assumption</td>
<td>2.50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO FORMA ESTIMATES 2003</td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>Unit sales</td>
<td>1,000</td>
<td>1,040</td>
<td>1,082</td>
<td>1,125</td>
<td>1,170</td>
</tr>
<tr>
<td>Unit price</td>
<td>$500</td>
<td>$513</td>
<td>$525</td>
<td>$538</td>
<td>$552</td>
</tr>
<tr>
<td>SALES</td>
<td>$500,000</td>
<td>$533,000</td>
<td>$568,178</td>
<td>$605,678</td>
<td>$645,652</td>
</tr>
<tr>
<td>Purchases</td>
<td>$144,627</td>
<td>$154,172</td>
<td>$164,348</td>
<td>$175,195</td>
<td>$186,758</td>
</tr>
<tr>
<td>Direct labor</td>
<td>97,665</td>
<td>104,111</td>
<td>110,982</td>
<td>118,307</td>
<td>126,115</td>
</tr>
<tr>
<td>Indirect labor</td>
<td>55,257</td>
<td>58,904</td>
<td>62,792</td>
<td>66,936</td>
<td>71,354</td>
</tr>
<tr>
<td>Distribution</td>
<td>26,235</td>
<td>27,967</td>
<td>29,812</td>
<td>31,780</td>
<td>33,877</td>
</tr>
<tr>
<td>Depreciation</td>
<td>17,634</td>
<td>18,798</td>
<td>20,039</td>
<td>21,361</td>
<td>22,771</td>
</tr>
<tr>
<td>Advertising</td>
<td>12,600</td>
<td>13,432</td>
<td>14,318</td>
<td>15,263</td>
<td>16,270</td>
</tr>
<tr>
<td>Commissions</td>
<td>27,746</td>
<td>29,577</td>
<td>31,529</td>
<td>33,610</td>
<td>35,829</td>
</tr>
<tr>
<td>Promotion</td>
<td>10,084</td>
<td>10,750</td>
<td>11,459</td>
<td>12,215</td>
<td>13,022</td>
</tr>
<tr>
<td>Market research</td>
<td>10,078</td>
<td>10,743</td>
<td>11,452</td>
<td>12,208</td>
<td>13,014</td>
</tr>
<tr>
<td>R &amp; D</td>
<td>15,073</td>
<td>16,068</td>
<td>17,128</td>
<td>18,259</td>
<td>19,464</td>
</tr>
<tr>
<td>Other</td>
<td>32,546</td>
<td>34,694</td>
<td>36,984</td>
<td>39,425</td>
<td>42,027</td>
</tr>
<tr>
<td>TOTAL EXPENSES</td>
<td>$449,545</td>
<td>$479,215</td>
<td>$510,843</td>
<td>$544,559</td>
<td>$580,500</td>
</tr>
<tr>
<td>PROFIT</td>
<td>$50,455</td>
<td>$53,785</td>
<td>$57,335</td>
<td>$61,119</td>
<td>$65,153</td>
</tr>
</tbody>
</table>

- **My strategy will work.** Here, the strategist has assumed 4% sales growth (cell B1). That assumption means also that the strategist implicitly and invisibly assumes that the business’s growth strategy will work.

- **Where’s the competition?** What if a competitor makes a great move and so your sales growth will fall? What if they cut prices and you’re forced to respond? What if their spreadsheet assumes their share will grow, and they get annoyed or desperate when their projections fail to materialize? The absence of competition in an accounting-based spreadsheet is a variant on the my-strategy-will-work problem.

- **Where’s the customer?** Where does it show up in the spreadsheet if you invest in a customer loyalty program, or improve the quality of your product or service, or re-segment your market to tailor your marketing pitch? Those programs can obviously have a huge impact on your results; however, an accounting-based view of the business doesn’t measure them.
Costs without benefits. Actually, in a way the spreadsheet model does pick up the loyalty, quality, or marketing programs. It picks up their costs. Unfortunately, it doesn’t pick up their benefits. The typical spreadsheet has an equation that says \( \text{PROFIT} = \text{SALES} - \text{TOTAL EXPENSES} \). It does not have an equation that calculates how sales changes as a result of investments in customer loyalty, product and service quality, and marketing. If the spreadsheet links sales to an assumption or a trend line, and if it links expenses to actual costs, then those investments look like costs without benefits.

Inadvertent short-term focus. Why not eliminate, say, marketing or R&D? Wouldn’t that boost profits? It would in the spreadsheet (because \( \text{PROFIT} = \text{SALES} - \text{TOTAL EXPENSES} \)); it wouldn’t in real life (at least not for long). Why not cut them by 90%? 80%? 30%? 10%? At some point we cross a mental threshold and believe we can cut without damage. The result is that we slash, squeeze, or starve investments — which makes us appear to be short-term oriented — when the culprit is, in part, a model that accounts for costs and doesn’t account for benefits. This kind of model has a built-in, hard-to-see bias that makes cost-cutting appear to feed the bottom line when it might actually be starving the top line.

Strategists create models to help them make better strategy decisions; they don’t intentionally create wrong models. Nonetheless, many models we use are wrong models. Why do we use them? Presumably because they are commonly accepted, because the tools to create them are on almost every computer, because they have surface validity, because their wrongness is invisible, and / or because we the skills needed to create better models are not widely available.

Overconfidence

Here’s a quiz, inspired by the excellent book Decision Traps, by J. Edward Russo and Paul J. H. Schoemaker. Write down your answers before you continue reading. (The answers are at the end of this article.)
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Write down two numbers for each of the following questions. Be 90% sure (not 100% sure) that the right answer is between the two numbers.

I am 90% sure that the right answer is between these two numbers:

1. How many Japanese firms are in the 2000 Fortune Global 500? _______ and _______

2. What were Microsoft’s revenues in fiscal 2003? _______ and _______

3. How deep is the deepest point in any ocean on earth? _______ and _______

I’ve used variants on that quiz in numerous conference and corporate speeches. People almost always put their two numbers too close together, and thus the answer is outside the range they said. In other words, they’re 90% sure the right answer is between their two numbers, and yet they usually are wrong. Put another way: people are overconfident.

It’s one thing to be overconfident when it comes to a playful quiz. It’s quite another thing when it comes to predictions about your strategy decisions. Think about the consequences of overconfidence on questions such as:

- How big will your markets be in three years?
- What will be your market share and profitability? Who will be your toughest competitors?
- How much do you need to invest in R&D to ensure a stream of new products?
- How much can your competitors improve customer satisfaction next year?
- What’s the likelihood that a new competitor will enter with a disruptive technology?

I believe that many strategists are more likely to be overconfident when it comes to questions about their businesses than they are about playful-quiz questions.

- I know my business. I’ve been in this business for many years… I’ve got lots of experience… I know how it works. I’m not overconfident, I am appropriately confident.
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- I’m supposed to know the answer. I’ve got experience… I’m the boss… I’ll be ridiculed if I show how little I know… I want to impress people with my decisiveness.

Overconfidence doesn’t simply lead individuals to believe incorrect answers. It actually prevents them from seeking answers that are correct. People don’t look for answers (let alone wait and / or pay for them) when they think they already have the answers.

The point is not to criticize people for being overconfident; apparently overconfidence is part of being human. The point is that because strategists (being human) are overconfident, they need to take extra steps to prevent their overconfidence from affecting their strategy decisions. That means questioning assumptions and conclusions that they believe are true.

Managers learn quickly that boldness is regarded as positive evidence of leadership and big-picture thinking. They learn that winning acceptance for their ideas can be more important than their ideas being right. They learn that thought without action is not rewarded, whereas action without thought can be rewarded. Thus, boldness can have effects similar to those of overconfidence. Because boldness means, in part, sweeping aside objections in order to generate action, it too can inadvertently produce bad strategy decisions.

The point is not to criticize boldness; apparently boldness is a part of corporate nature in the sense that overconfidence is part of human nature. Plus, boldness has positive effects, too. The point is to recognize the systemic influence of boldness and to install checks and balances to counteract it.

Then there’s experience. As we accumulate experience in strategy decision-making and in particular industries, we come to feel that we can make better decisions. We get ample confirmation of that belief, because people without experience defer to those with it, and because experience is among the most highly sought characteristics in senior managers. The question is, what do we learn from experience?
Sometimes when people accumulate experience, they really accumulate habits. When their actions work (or seem to work), their actions are reinforced. That’s what’s going on when people insist on particular actions even when the situation may have changed. They’re not intending to be difficult or stubborn; they are simply doing what they’ve learned (based on their interpretation of past events) is the right thing to do. The more experience, the more the person is invested in the rightness of those actions, and therefore the more threatening it is for those actions to be challenged. Lack of experience can actually help upstarts because it’s easier for them to avoid this overconfidence trap.

To the person who has acquired these habits, the rightness of the resulting actions is self-evident. “I did that and it worked.” It’s hard for that person to understand why anyone would question the actions. To them, it appears like needless, time-wasting analysis; it might even seem disrespectful. Yet habits, like trend lines, implicitly assume that the current situation is related to the past situation where the habits were learned or the trend lines were drawn.

The point is not to question the value of experience; it is to question the interpretation of experience. It’s the difference between reflex and reflect. Questioning habits is a difficult personal challenge, and yet it is essential to avoid overconfidence traps. The team that successfully questions habits is the team that can beat — or become — the innovative upstart.

**Risks and rewards**

One side of the mouth says, “We encourage you to fail. If you aren’t failing, you aren’t trying. Creativity is the lifeblood of our company, and risk-taking is our path to the future.”

The other side of the mouth says, “We hold you accountable for results.”

In a sense, one mouth is speaking and what it says is not unreasonable. Of course management can accept a certain amount of failure, and of course management should (eventually) expect good results. We can even combine the take-risks and you’re-accountable directives into a unified statement of empowerment: you have a lot of latitude as long as you produce.
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At a different level, though, the two directives can set the strategist’s best interests at odds with the company’s. For example, consider this simple choice:

<table>
<thead>
<tr>
<th>Strategy A</th>
<th>Strategy B</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% likelihood of 10% sales growth</td>
<td>50% likelihood of 9% sales growth</td>
</tr>
<tr>
<td>50% likelihood of 12% sales growth</td>
<td>50% likelihood of 29% sales growth</td>
</tr>
<tr>
<td>Expected result: 11% sales growth</td>
<td>Expected result: 19% sales growth</td>
</tr>
</tbody>
</table>

If the strategist’s performance goal is set at 10% sales growth, it is rational for the strategist to select strategy A. That’s true even though strategy B is the right choice from the company’s perspective (unless something awful will happen at 9% sales growth) and even though the strategist knows top management should prefer strategy B. It doesn’t matter how much top management talks about risk-taking, how much business gurus praise risk-taking, or how much the media berate a lack of risk-taking. If you make status, promotion, bonuses, or continued employment contingent on producing 10% sales growth, you will close off options that risk underperforming that goal even a little. In other words, you get what you pay for.

Selecting strategy A may look like a bad strategy decision. From the company’s perspective, it is. For the strategist being held accountable for achieving 10% sales growth, strategy A is a good strategy decision.

The core problem is conflicting motives. The company (probably) can afford to spread its risks among multiple businesses and it may be willing to risk a small downside to get a big upside. The strategist (probably) cannot afford to take the personal risk of failing to meet goals. It’s not that the strategist is wrong, irrational, or stupid. It’s that the best decision for the company is not the best decision for the strategist. In effect, the smart move for the strategist (who is playing by the company’s rules) is to pick a strategy that’s bad for the company.

We can see a similar chilling effect even if the company theoretically does a good job of balancing risks and accountability. It may be politically and personally unwise to buck a boss who prefers a particular direction. Again, the issue is tension between the strategist’s and the company’s measures of success.
The relationship between personal and corporate success is another area where upstart companies can get an advantage over incumbents. In an upstart, personal goals and company goals are often much better aligned. In other words, a strategist at Energetic Newbie Inc. is more likely to pick strategy B than his or her counterpart at Ponderous Behemoth Ltd.

The accountability and wrong-model issues can reinforce each other, to the further detriment of decisions. Bosses and subordinates both want “good” targets and forecasts against which to gauge performance, and so they devote considerable resources to improving accuracy. The problem is, wrong-model problems make it virtually impossible to create those “good” goals. For instance, competitors’ actions can have an enormous impact on a business’s performance, and yet it is difficult to take those actions explicitly into account with conventional tools. So what happens when competitors do something unexpected? Either the manager gets a bonus because a competitor stumbled, or the manager scrambles to “make the numbers,” often sacrificing the future in the process (as discussed above, in “Inadvertent short-term focus”).

You get what you pay for, and that’s the rub. The key challenge is for management to encourage and reward risk-taking without encouraging and rewarding bad decisions.

**What to do**

What we’ve explored is some of the reasons why we unintentionally create intelligent failures. In effect, intelligent failures are built into the system.

No one wants failure, intelligent or otherwise. In nearly 30 years of building models, implementing business war games, and working on strategy decisions, here’s what I’ve seen that helps.

**Recognize and use good models**

The solution to the wrong-model problems is not to dispense with models (especially since that’s impossible; we just switch to mental models). Rather, when making strategy decisions, the trick is to use models that work for strategy decisions.
I recommend that you look for two characteristics.

- Use models whose calculations mirror cause and effect, as opposed to models based on accounting rules, historical trends, etc. Causal models help you avoid the “Costs without benefits” and “Where’s the customer” traps.

- Use models that take competitors explicitly into account. Whole-market models help you avoid the “My strategy will work” and “Where’s the competition” traps.

Good models do more than avoid analytical mistakes. They also counteract overconfidence. When an analysis conflicts with personal belief, there’s opportunity for dialog and learning. If you decide the model is wrong, you improve the model, which makes it that much better for future use. If you decide the person is wrong, the person learns and becomes more valuable and successful within the company.

I’ve participated in about 100 business war games using causal whole-market models. I’ve seen strategists gain startling insight from a rigorous, quantitative, strategic view of what could happen in their business, the kind of insight that’s usually worth tens of millions, and sometimes hundreds of millions, on the bottom line.

It’s critical that you recognize the difference between good and wrong models, and use the good ones. It’s not a matter of accuracy; it’s a matter of avoiding bad decisions caused by wrong models. If you don’t want to learn about models yourself, get someone to do it for you.

**Don’t just think about thinking outside the box**

We all know the value of ideas and creativity… perhaps none more than incumbents seeing an upstart zoom past them in the fast lane, wondering “why didn’t we think of that?”

You can generate much more creativity by using shadow teams, strategy simulations, business war games, contrarians, scenario planning, and more. The trick is to create an environment, at least during strategy development, where ideas can safely flourish, including (perhaps especially) those that can be used against you.
Having your colleagues role-play your competitors is a terrific way to generate ideas. They get inside competitors’ heads when they devise strategies to clobber the home team. Their strategies often succeed in the simulation; who knows your business’s weaknesses better than your own people? Their success becomes a wake-up call for the home team to generate ideas of its own to retaliate effectively. The home team also experiments with its own strategy ideas to see if they can preempt the competition. They even get to explore whether a competitor’s move is a bad idea that they ought not follow.

**Align personal and corporate goals**

A rigorous, quantitative, strategic look at a business’s future can help a company create alignment, consensus, and commitment to a path. Knowing what to expect under different scenarios lets top management distinguish good decisions from bad, and understand when and if to adjust performance goals.

Strategies built using questionable analysis (wrong models) and wishful thinking (overconfidence) may produce, on paper, the numbers everyone wants to see. Whether they’ll come true in real life is another matter. (How often do you see businesses perform under target or borrow from future performance to satisfy today’s needs?) Strategies built using better models and better thinking have better odds of better performance. Moreover, it’s often possible to see, in advance, what the range of performance might be, which in turn helps decision makers distinguish a strategy that will succeed only if all the stars line up from a robust strategy that will perform well no matter what.

I’ve seen multiple instances in which business-unit management was at odds with corporate, due to significant shifts in competition, entry of new competitors, products going off patent, and so on. They involved the classic conflict: corporate wants to be sure that the SBU stretches to reach its goals, and the SBU wants goals that are actually attainable. Often such conflicts end up with unsatisfactory resolutions such as splitting differences, imposing an arbitrary number, or firing “non-performing” managers. In these cases, though, rigorous inquiry into the effects of expected competitive changes led to agreement between corporate and SBU. No jobs were lost, no careers were tarnished, no knee-jerk reactions to competitors ruined the market.
Summary

Intelligent failures happen despite ample data, motivation, analysis, and intelligence. They come from structural characteristics of conventional models and human thinking that make it easy to fall into bad strategy decisions.

The solution is not in precision. Adding one more decimal point or one more data nugget will rarely make a material difference in a strategy decision.

The solution is not in exhortation or accountability. Managers are highly motivated, and sometimes downright fearful. They want to do well.

What’s revolutionized other functions in companies is thinking differently. Just in time production, mining customer databases, computerized financial systems, mass customization, Internet marketing, loyalty programs... the list goes on.

What does thinking differently look like for strategy development? Use good models designed for strategy decision-making. Adopt processes that encourage creative thinking and defuse overconfidence as you generate strategy alternatives. Test strategy options to distinguish good options from bad, and to set goals that align personal and corporate interests.

The result: intelligent success.
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About the author

Mark Chussil is Founder and CEO of Advanced Competitive Strategies, Inc., and lead creator of the award-winning ValueWar® strategy simulator. He and his colleagues at ACS have implemented business war games for dozens of Fortune 500 companies around the world. He has published extensively and spoken at numerous conferences. Prior to founding ACS, Mark worked at The Strategic Planning Institute (The PIMS Program) and Sequent Computer Systems. He earned his B.A. from Yale and his M.B.A. from Harvard.

Answers to the overconfidence quiz

1. There were 107 Japanese firms in the 2000 Fortune Global 500. (There were 111 in 1990.)
2. Microsoft’s fiscal-2003 revenues were $32 billion.
3. The Mariana Trench, in the Pacific Ocean, is 10,915 meters deep (35,810 feet).