

***Dealing with Darwin:***  
***How Great Companies Innovate At Every Phase of Their Evolution***  
**Q&A**

**About the Author**

- It's been five years since your last book, why write now? Globalization is creating a new context for business strategy that forces us all to rethink our approaches to innovation and resource allocation.
- What was the inspiration for *Dealing with Darwin*? Concern about how citizens in high-wage developed economies could maintain their standard of living in a globally competitive marketplace.
- Are you a Darwinist? Very much so. In business in particular, the competition for scarce resources creates a natural selection based on strategy and execution. When business environments change, previously successful strategies fall out of favor, something no amount of execution focus can fix, forcing evolution. Companies that are unable or unwilling to change, like endangered species, become marginalized or extinct.
- What do you hope *Dealing with Darwin* will accomplish? I hope it will be a call to action to reframe strategy in light of a globalizing economy. In that context, I expect it to provide useful frameworks for refocusing investment in innovation and reallocating resources to fund that innovation. I am also hopeful it will introduce a new approach to workforce management that will allow both management and labor to embrace outsourcing without fear.
- Given all that has changed in the technology market, are your earlier books such as *Crossing the Chasm* and *Inside the Tornado* still relevant reads? Wherever a disruptive innovation is at work forcing customers or value-chain partners to adopt new practices, the technology adoption life cycle will continue to provide useful insights, and the books will be relevant. What has changed in the information technology sector is that now there is so much legacy the willingness to embrace disruptive innovation, even for 10X gains, is muted. In such an environment tech itself has much to learn from more mature industries, and part of the function of this book is to bring some of those lessons to readers of these prior books.
- What are your biggest personal lessons since your last book, *Living on the Fault Line*? *Fault Line* was an early attempt to accomplish some of the goals that drive this book, using managing for shareholder value as a guide to strategy and execution. The financial markets, however, were so unstable as to be unreliable for that purpose, and arguably so were the pundits. I think we all needed to take a few years off to dry out.
- Tell me about TCG Advisors. TCG Advisors consults with technology and technology-enabled enterprises on issues of strategy and transformation—very much the sort of thing covered in *Dealing with Darwin*. It is a practice made up of senior principals only, where we facilitate management dialogs based on applying our models to problems they are facing. The goal is to achieve clarity and alignment on critical risks or opportunities and the actions to be taken in that light.
- What other business books are you currently reading? Embarrassingly, I am not much of a reader of business books, but I am fortunate to have colleagues like Tom Kosnik, former professor at both Stanford and Harvard, who strive to keep me current. On my own time I am currently twenty months into reading *Molecular Biology of Cell* (a 1400+ page tome), liberally supplemented with historical mysteries, books on improving my golf game, literary criticism and biography, and current developments in Darwinian thinking.

## About the Book

- How is innovation critical to creating advantage in an increasingly commoditized world? The antidote to commoditization is differentiation that leads to customer preference. Innovation that creates that kind of differentiation is the goal. Unfortunately, most companies waste much of their innovation effort on initiatives that do not differentiate them. These are the ones that fall victim to commoditization because they are spending on innovation but not getting paid for it.
- What are the challenges of innovating in a global economy? What differentiates you today, if it is successful, becomes a natural target for competitors to emulate. As more and more succeed in doing so, this attribute ceases to differentiate and simply becomes an expected standard. You still have to provide it, but you won't get special credit for it. The net result of this pattern is that the bar gets higher and higher every year just to meet market standard, *and* you must innovate new differentiation on top of that, *and* you must find a way to extract resources from the former in order to pay for the latter.
- What is the impact of globalization, commoditization and deregulation on innovation? In a prior era, markets were harder to penetrate, thereby slowing the pace at which commoditization could erode established innovations. This allowed for a longer competitive advantage period and higher returns on invested capital per innovation. Today, open markets have increased the pace of displacement so that innovation cycles must come more rapidly and have less differentiated time in market to pay back their investment.
- Why must we manage innovation and inertia in tandem? Inertia is the residue of past innovation efforts. Left unmanaged it consumes the resources required to fund next-generation innovation. We call this context robbing from core. Our mantra for managing innovation and inertia in tandem is *extract resources from context to repurpose for core*.
- What are the different types of innovation? The model we use distinguishes fourteen types of innovation which we subdivide into four sets. The set most familiar to high-tech audiences, and the one most useful in high-growth markets, leverages the value discipline of product leadership. It includes four innovation types: disruptive, application, product, and platform. More mature markets reward the other two value disciplines, each associated with its own subset of types, as follows: customer intimacy and the innovation types of line extension, enhancement, marketing, and experiential; and operational excellence with the innovation types of value engineering, integration, process, and value migration. Finally, declining markets call for the value discipline of category renewal, and are associated with two innovation types – renewal and acquisition. It's quite a lot to manage in one session, and the early focus of our consulting practice is on winnowing down the candidates to a relevant few.
- How do companies get stuck in innovation? Successful innovations are self-reinforcing, thereby creating inertial momentum behind their continuation. This has very positive effects as it helps refine the skills involved and improve the productivity of the output. Once, however, this form of innovation ceases to differentiate, this same inertia continues to drive behavior and is reinforced by management, budgeting, promotion and compensation systems. It is in people's short-term self interest to align with inertia, and if enough people do, they begin to expel the ones who won't. This is a path to getting truly stuck.
- What are the roots of inertia? Success, a desire to achieve, and a desire to excel. Inertia is elemental to all systems and invaluable in its place. We simply have to learn how to dismantle it when it no longer serves.
- Invest. Downsize. Invest. Downsize. How do companies break the habit? Two things are key to success here. The first is to focus investment so that it results in market-validated

differentiation that leads to revenue and profit improvements. The second is to fund investment by recycling the existing workforce rather than disposing of it when it is no longer relevant (of this, see more below).

- The differences between “core” and “context” continue to be an important and relevant theme in your writing. How would you define the two, and how do companies extract resources from context to repurpose for core? *Core* as we traditionally have defined it applies to processes that differentiate your offers to create competitive advantage leading to customer preference. *Context* refers to all other processes. The overwhelming bulk of all work is context, not core. The goal for managing context is productivity, freeing up resources to repurpose for core. To this traditional definition we have added an extension that applies to markets. Here core means a market is in play, with market leadership up for grabs, and context means its structure has been determined, the market share pecking order set. Again, the best strategy is to extract resources from context markets, even ones that are highly competitive, and repurpose them for core. Needless to say, this is not for the faint of heart, but it is behavior that Darwin rewards.
- What is resource recycling? Resource recycling is a program for retaining a workforce while actively utilizing outsourcing. It identifies three key roles in the life cycle of an innovation— invention, deployment, and optimization. Once the innovative process ceases to be core and has become context, the goal of optimization is to prepare it for outsourcing. There is an enormous backlog of this optimization work to do, so when companies do outsource, they should recycle the optimizers to work on the next batch of context. This in turn frees up “deployers,” who are currently stuck doing undifferentiated work, to be reassigned to deploy the next wave of innovation. That in turn frees up inventors to go off and invent the next new thing. In this model, a much higher proportion of the workforce stays with the institution whenever legacy work is outsourced to another company.
- What is the correlation between free market economies and organic systems in nature? Both are governed by a competition for scarce resources resulting in natural selection leading to evolution in behavior. In nature this stimulates the appearance of new species and the refinement of existing ones. In economies it stimulates the appearance of new products and services and the refinement of existing ones. That is why free markets are so good for consumers. But they definitely keep vendors on their toes.
- What are the three foundational models? For the purposes of *Dealing with Darwin*, there were three foundational models we needed to put in place in order to lay out the innovation types framework. The first was simply a return-on-innovation model that drew attention to what kinds of innovation do and do not generate economic returns. Too many managers believe innovation is a good thing in itself. This is not true. Innovation is an expensive thing in itself, and frequently also a risky thing, so it must generate economic returns. The second model was the category maturity life cycle, which allows us to show that certain types of innovation are privileged at different periods in the maturation of a category. Or put another way, as a category matures, it ceases to reward innovation types it used to and rewards others instead. This is key to winnowing down the relevant set of innovation types for investment in any particular situation. The third model highlights two contrasting business architectures that underlie all of business—the complex systems model, which is optimized to serve large enterprises as customers, and the volume operations model, which is optimized to serve large populations of consumers or other end users. These two models provide diametrically opposed backdrops for innovation, and every innovation strategy discussion needs to be filtered through this distinction in order to be properly targeted.

- What are the biggest differences between growth, mature and declining markets? Superficially, this is simply a distinction in growth rates—high, low, and negative. The significance of growth markets is that they tend to be in play, thus potentially core, and reward higher risk innovation investments. By contrast, mature markets tend to be determined, and therefore reward more prudent lower-risk innovation investments. Declining markets force an eventual exit strategy, meaning all prior forms of innovation need to be abandoned in favor of category renewal innovation, be that organic or through acquisition.

### Current Commentary

- How healthy is Silicon Valley today? There are two questions here. Legacy Silicon Valley, which thrived in the IT sector, is learning to adopt to the realities of a maturing market. Venture Silicon Valley is refocusing outside of IT into energy, bioinformatics, materials, and other technology forefronts. The adaptability of the Valley in both areas is strong, in large part driven by two superb local universities which prepare managers for the former and attract scientists and engineers for the latter.
- You talk at length about Cisco in your book. What is your take on its future as an innovator? Cisco is at the epicenter of the single biggest wave of innovation in high-tech history, the networking of the entire planet and the recasting of IT from a computing-centric discipline to one that combines computing, communication, content, and collaboration. As long as Cisco puts itself in service to this wave, it has great opportunities for success. Like all great companies, it has generated enormous inertia around its past successes, so its greatest challenge is to deconstruct portions of that legacy to put in service to new realities.
- Who are the top 5 most innovative companies? *Dealing with Darwin* calls out over 100 companies that have successfully taken a focused approach to a particular innovation type and created long-lasting economic success by so doing. I do not think this is an elite game. I think everybody should be expected to win. Think of the analogy to nature: there are no “top 5” most successful species. Each existing species is a testimony to a successful innovation strategy that has created sustainable competitive advantage in its niche.
- What are the top ways to innovate in 2006? Innovation is situational. The same 14 types that served last year will serve next year. Winning strategy depends on selecting an innovation type that is appropriate to your category’s maturity, not preempted by another competitor, and consistent with your core competence. Winning execution depends of aligning your entire company behind that innovation type, recasting every process to enhance your differentiation further, and fielding initiative after initiative to overwhelm any competitor that seeks to emulate you. Eventually competitors either cannot or will not follow, and you will have achieved the competitive separation that underlies long-term economic success.
- What will happen to the maturing technology market in the next 12 months? The sector that is struggling the most in 2005 is enterprise IT. It grew enormously in the past decade atop a client-server architecture that became internet-enabled. Now that architecture is getting long in the tooth. Its inflexibility is a barrier to the inter-enterprise business practices that are key to global competitiveness. Recapturing flexibility requires transitioning to a new web-services-oriented architecture, which will take years. Until that happens, the sector will continue to consolidate, and new entrants will find it tough sledding—even though customers desperately need and want their innovations. The problem is that to integrate the next new innovation into an increasingly complex legacy is nigh-on impossible.
- What are the changing requirements for tech CEOs? In an era of repeated surges of innovation, tech CEOs had to be highly competitive and very short-term-results oriented in

order to win the critical market share battles in the short periods that the markets were in play. Now that many of those markets have matured, tech CEOs need to become more collaborative in their approach to next-generation innovation and more operationally disciplined in their approach to current efforts. These are attributes that mature sectors select for, and we should not be surprised to see a next generation of tech leaders coming from other sectors.

- The maturity model – what’s it all mean? Just that innovation strategy is situational, so that focusing on core competence alone is insufficient. You have to exploit a core competence that is core, and to fund that effort you have to extract resources from core competences that have become context. This is a challenge because human beings love to do what they are best at and are reluctant to chance new behaviors where their skills are unproven.
- Where does M&A fit in with innovation and inertia? M&A is an innovation type we call acquisition innovation, a way of renewing a franchise by extracting resources from a declining category and investing them in a growth one. That said, there are huge execution challenges to this type of innovation because you are merging two streams of inertia, each alien to the other, both in need of redirection, but neither organization has the necessary relationship of trust with the other to bring off resource recycling readily.
- Why doesn’t America recycle its human resources? It’s not just America. All corporations tend to maximize the expertise of the workforce in relation to the current task set. When that task set becomes obsolete, the workforce has little to offer in other situations. What resource recycling calls for is investing in three perennial skill sets— invention, deployment, and optimization—and applying them over and over to an ever-changing workflow. This is a level of abstraction that is novel. We’re going to have to see if it can catch on.
- How does the current offshoring/outsourcing debate tie into *Dealing with Darwin*? Offshoring and outsourcing are different disciplines—one having to do with tapping into a different labor market, the other with transferring responsibility for a given business process. Both relate to *Dealing with Darwin*. Offshoring taps into low-cost labor markets to enable lower price points in commoditized offerings. A high-standard-of-living economy’s best defense against offshoring is to differentiate in ways that create customer preference over the commoditized alternative. In order to differentiate this powerfully, companies must focus more and more of their resources on a particular type of innovation. To do that, they need to offload work that requires the other types. This is where outsourcing comes in. The formula is to outsource your context so you can focus on your core. There are plenty of challenges to executing this formula, but since there are few strategic alternatives that are viable, these are challenges we must master in order to sustain our current standard of living.
- Is enterprise IT dead? Does the maturation of the technology sector mean death and decay of its businesses? No, enterprise IT is in metamorphosis. The current categories are in decline and the conditions for next-generation categories to succeed have yet to emerge, so venture capitalists at present are not inclined to invest. But the business problems brought on by globalization will not go away, and next-generation IT is crucial to solving them. It’s not a question of if, therefore, only a question of when.
- How have consumer tech items such as the iPod moved the market from product to services? The digitization of entertainment combined with the ubiquity of the internet has thoroughly disrupted established media. The first wave of this disruption always favors the digital devices—MP3 players, digital cameras, HDTVs. But once the end points proliferate then the innovation type we call value migration sets in, as economic returns migrate from the device producers to the consumables producers. With digital content servable over the internet, there is no need to sell these consumables as products. They can simply arrive as a service for a fee

or subsidized by advertising. It means that web portals like Google, Yahoo, MSN, and Amazon are exceptionally well positioned to distribute the next generation of consumables.

- What other vertical markets are feeling the effects of *Dealing with Darwin* the most? Manufacturing has taken the brunt of globalization thus far, initially through outsourcing, now increasingly through imported retail goods. On the service side, call centers are now feeling its impact, with business process outsourcing in line to be next.

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