

Leading Innovation: A Playbook for Growth

Jeff DeGraff, clinical associate professor of management education at the Ross School of Business, teaches in the school's MBA, Executive MBA and Executive Education programs. His teaching and research focus on change and innovation strategy and practices, organizational competencies and creativity. DeGraff, a core faculty member in the University of Michigan Center for Leadership, Change and Innovation, is a managing partner of the consulting practice Competing Values Company. Clients include Pfizer, General Electric and Toyota, as well as dozens of other Fortune 500 firms. His latest book, *Leading Innovation: How to Jump Start Your Organization's Growth Engine* (McGraw-Hill, 2006), presents a holistic approach to creating innovation at all levels of an organization.



Jeff DeGraff describes his new book as “a playbook for a successful leader in a managerial capacity who is suddenly charged with growing the business.” It explains how to evaluate an organization's competencies and culture, cast a strategy, mobilize an organization to execute that strategy, jump-start projects that take the strategy forward and develop a small group of what DeGraff refers to as “innovation black belts” to run the projects. He tells how to make corrections to organizational processes like resource allocation, the planning cycle and metrics so those processes can be scaled for a larger organization.

In this Q&A, DeGraff shares examples

of innovation superstar firms, talks about new forms of innovation that should be on the radar screen of savvy businesspeople and explains how to identify and encourage individuals who make innovation happen.

Dividend: What is innovation?

DeGraff: True innovation is any activity that results in making the organization better or new. It must produce value and it always has four characteristics:

- It enhances something. Google enhanced the search engine and made it simpler.
- It destroys something or makes it obsolete. Think about how Charles Schwab made full-service brokerages obsolete.
- It returns us to something that we once prized or felt that we have lost. I think of Barnes & Noble bookstore, which allows us to feel like students again — we read books, drink coffee and sit in leather chairs.
- It reverses into its opposite over time. Remember when we thought that e-mail would be a great time-saver? Now we try to get around e-mail because it is consuming more and more of our lives.

Dividend: How did you develop that definition?

DeGraff: Most definitions of innovation involve technology and words like big and fast. But that's often not the case. Some of the most potent types of innovation are social, incremental and slow. Think about the eco-movement, which started in 1962 with the publication of Rachel Carson's *Silent Spring*.

My definition for innovation comes

from Marshall McLuhan, the great University of Toronto professor-guru and author of *Understanding Media*. Innovation has to provide tangible outcomes and employ some sort of useful novelty. It is just as likely to happen around inbound supply logistics, marketing or service support. The concept of the R&D guy working alone in the science lab ended in the late 1970s. Our definition for innovation must reflect a more contemporary and open view.

Dividend: Could you share some examples of companies that illustrate the approaches to innovation you present in your book?

DeGraff: Google exemplifies the *create* type of innovation. It is a hodgepodge of loosely federated, smart people pursuing dozens of growth agendas and different technologies with a high adaptation rate. Google has a lot of slack resources to invest, which has resulted in some breakthrough innovations. We know Google has done incredibly well with its search engines and maps. However, it has literally hundreds of other innovations whose impact we won't know for years to come. The anticipated big payout occurs in the future. This focus on high-risk and high-return innovation is typically associated with a newer firm.

Contrast this breakthrough approach with Toyota, which illustrates a classic *control* form of innovation, taking on little risk. Toyota has a checklist and process for everything, with all employees trained in the “Toyota Way.” Toyota has never really distinguished itself as a radical innovator, but it has perfected incremental innovation. For example, Toyota took the hybrid engine that GM worked on in the 1970s and made it viable. In contrast to Google, Toyota is a low-risk and low-return innovator that seeks productivity on a large scale.

Both companies are innovative, but use different pathways to arrive at their innovation goals. Google looks for breakthrough innovation and organic growth while Toyota looks for productivity and quality. Of course, most firms need to do both. That's the trick, coordinating these oppositional forms of innovation through effective leadership and organizational practices.

Dividend: What about the *compete* and *collaborate* forms of innovation you cite in your book?

DeGraff: We also can look at how fast a company innovates. My favorite examples

in terms of speed are IBM and W.L. Gore & Associates. IBM has an amazing ability to break the organization into teams and move quickly. I call this the compete approach. IBM aggressively acquires businesses and technologies, which gives it an advantage in the immediate future. IBM's focus is on revenue. It develops bundles of innovation, which it calls a solutions business. IBM will design, develop and deliver whatever you want to buy from it and do so very quickly. It offers an amalgamation of strategies, problem solving, technology, design and back-office systems. Some elements of its solutions business are breakthrough, but for the most part they are relatively minor improvements on existing technologies and approaches very well executed. IBM responds rapidly to market demands, and it has great esprit de corps.

Contrast IBM with W.L. Gore, which has taken the *collaborate* viewpoint toward innovation. W.L. Gore, the maker of Gortex, is a privately held company that tries to keep its business units below 50 people. It is a family type business. Instead of figuring out how to make more money this quarter, W.L. Gore's goal is to develop good people, who will in turn develop terrific products and services. Their philosophy is "Let's develop a good culture and make sure that we give our products and services the time to develop the right way, so that we have something sustainable." They believe that the markets, products, services and competitors will change, but as long as they have a highly competent culture and competency, they will be able to make the necessary adjustments to thrive.

Dividend: What is an example of a breakthrough resulting from the collaborate form of innovation?

DeGraff: Glide dental floss, marketed by Procter & Gamble, is one. W.L. Gore actually developed the technology, but no one wanted to adopt it for dental floss. So Gore made thousands of dental floss dispensers and distributed samples to dentists, asking them, in return, to use the floss and share their patients' reactions. Before long, the dentists were asking for more, and their customers couldn't find Glide in stores. W.L. Gore took this data to Procter & Gamble and was able to report that people liked the product. The development of Glide wasn't the result of a corporate mandate. Rather, a self-authorizing team in one of W.L. Gore's small operating units in Delaware thought that using Gortex

technology on dental floss was a good idea and took the concept forward. W.L. Gore has a lot of these stories of small groups navigating the internal organization and external markets to produce high-growth, innovative products such as Elixir Strings, which outlast other guitar strings. These ideas don't come from a central portfolio or produce short-term revenue. The downside of the Gore approach, which is a *collaborate* or social approach, is it takes a long time to develop a product. The upside is it is sustainable. The upside of the IBM *compete* approach is it is very fast. The downside is it is not terribly sustainable.

Dividend: What do you foresee on the horizon for new forms of innovation?

DeGraff: I believe that businesses are overlooking a revolution in the collaborative or social approach to innovation. That is, these are business model innovations that change the very nature of how we make, sell and support innovation. Three companies — Linux, eBay and Procter & Gamble — are changing the way we do business.

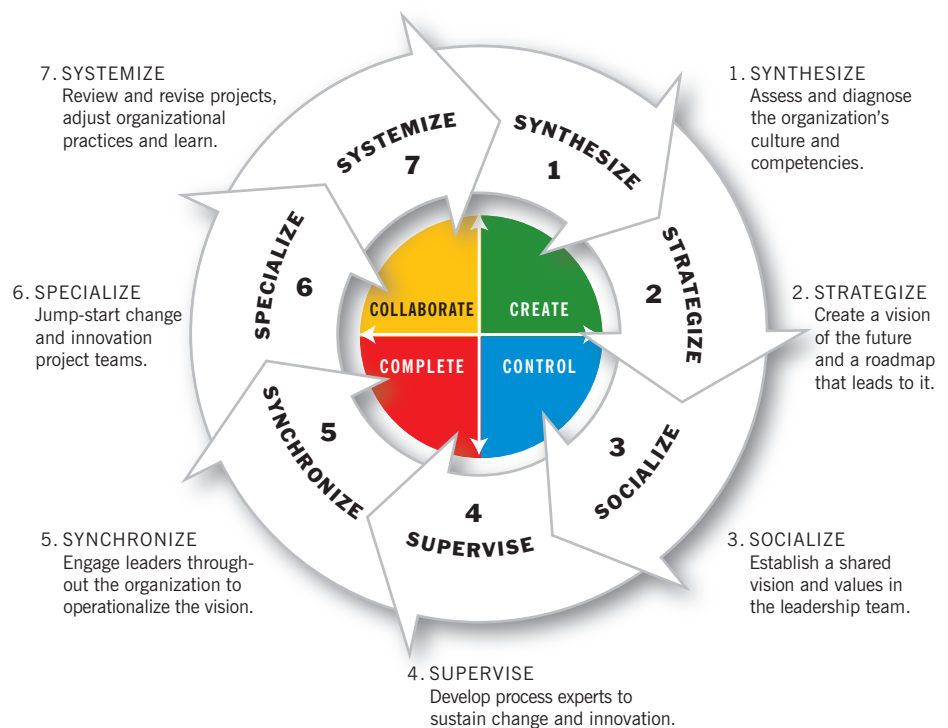
Linux makes open-source software. The firm believes that if 30,000 people contrib-

ute to the Linux kernel, the basic operating system, that its open-source software will be much more robust and powerful than any one individual can make it at a company. The downside is the process is slow, and the business model isn't really designed to produce profits. We refer to this approach to innovation as a post-capitalist model. Linux software is nothing short of spectacular in as much as so many people are willing to support it. If you are Microsoft, how do you compete with Linux or Mozilla's Firefox, another Web browser that uses the collaborative approach?

eBay, also a community-based model of innovation, gets Web users to spend more time per viewing on their site than any other site on the Web. eBay has the potential to challenge government jurisdiction and boundaries. For example, some of the transactions on eBay are actually more akin to swaps, where money doesn't trade hands. More so, illegal and potentially dangerous forms of activities are harder to police. The power of governments to collect taxes, regulate commerce and enforce laws designed for traditional markets quickly evaporates. That's why several governments around the world are so concerned about eBay.

The Seven Steps

Jeff DeGraff lays out seven steps that can be replicated by leaders anywhere in their organization to create best practices for innovation. In his book, he goes into detail about the steps, which can be used singly or in combination depending on the needs of the organization.





Dividend: What are large firms doing to compete in this changing environment?

DeGraff: We're finding more of what we call the "federation model" in larger companies these days. Companies are no longer going alone; they are collaborating with other companies. In 1997, Procter & Gamble had some trouble with Wall Street, which was upset with its growth numbers. In a remarkable move, P&G, one of the most conventional innovator firms, created a number of novel ways for smaller firms and even consumers to collaborate with the company to develop products, producing winning results like Crest Whitestrips and SpinBrush for teeth, and the Swiffer mops. Procter & Gamble's R&D expanded from one company to a wide federation of companies, and P&G has become the point where all these parts to the innovation puzzle are put together and marketed.

While people are doing a lot of work on the technical and business parts of innovation, I believe the community-centered model is changing the market, and it is a change for which large Fortune 500 firms are unprepared. Big blue-chip companies desperately are trying to create innovation networks and incubator centers, but their own organizational processes act as roadblocks. A lot of the traditional practices that we teach in business school are not supporting the growth agenda and must be rethought.

Dividend: What is the main obstacle for large companies that must innovate to grow?

DeGraff: How you innovate determines what you innovate. For example, a mature firm will declare that it is actively seeking pathways to organic growth. This is usually accomplished via the *create* form of innovation we see at Google, which grew

its net income last year by 278 percent. So we should expect these more mature firms to follow the Google playbook of speculating new markets, diversifying through radical experiments and making strategic high-risk, high-reward bets. Instead, we are more likely to find these mature firms building large and complex systems with lots of associated processes for doing things the "right way." Typically there is some form of certification that accompanies the roll-out of these humongous systems that are almost indistinguishable to the uninitiated from a vanilla version of a lean manufacturing process with a label like "Very big innovation process" slapped on at the end for good measure. There is very little evidence that these systems produce substantial growth. Instead, they more than likely support productivity and quality, which are important and valuable results but can strangle breakthrough innovation and organic growth. The number-one problem mature firms have is that they want one outcome while embracing the opposite practices with which they are most familiar. In other words, the challenge is to overcome their own conventions and innovate how they lead.

Dividend: What convinces you that innovation takes root from experiments and experiences within an organization and surfaces in ways that companies often don't anticipate?

DeGraff: First, I've learned personally from working with 50 Fortune 500 companies and helping them create double-digit growth.

Second, with the conventional business approach, strategic planning creates a clear roadmap from point A to point B. But the more radical the innovation, the more useless the roadmaps are. When an innovation starts out, you're not sure what it is. You have to nurture and protect it. That innovation has to interact with the environment and grow. You need patience. Sometimes you have to be directive. Other times you have to be hands off. Innovation pays in the future, not today.

Imagine going through the normal planning cycle where every January you plan and every December you reconcile the plan. In a world of innovation, events don't follow the typical planning cycle. As Professor Bob Quinn puts it, "Leading innovation is about building the bridge as you walk over it." Leading innovation is about what you learn along the way

and how you interact with that knowledge.

Third, even if a firm has developed some interesting product or service, the real challenge with innovation is to have people buy into it. The amazing thing about innovation is that it has a second life. A lot of innovation makes it into the world, where it takes on a whole new set of attributes.

Dividend: What would be an example of an innovation with a second life?

DeGraff: Cell phones' text messaging feature, for one. Originally, text messaging was to support phone messaging. If people couldn't reach you or leave a voice recording, they could type you a number and ask you to call. Not too exciting; but when you gave text messaging to a teenager restricted from making phone calls or passing notes in class, suddenly you had an entire community, language and culture around text messaging. Something we viewed as a minor ancillary addition to phone service has become a central piece of telecommunications.

Dividend: What industries and companies are most in need of this innovation framework and why?

DeGraff: Large corporations that have a great deal of scope and scale, because they are mature firms that have the four forms of innovation I talk about in the book — *create, control, compete and collaborate* — operating concurrently. Unfortunately, too often one form of innovation becomes so powerful that it strangles the other three.

For example, General Motors is still one of the great innovative firms in the world. The problem for innovative giants is not so much about developing new technologies, but moving innovation quickly through the entire enterprise. Enterprise innovation means connecting the dots of the various units, departments and locations. When GM develops a new technology, like the new hydrogen-powered Highwire concept vehicle, it is engaged in *create* forms of innovation; but when they go to market with this car, they will need to focus more on *control* forms of innovation. It's the handoff between these oppositions that are so difficult for large firms to get right.

It is like being right- or left-handed. One of the arms becomes so strong that the other becomes weak. Large firms must be multidimensional, particularly when they get into trouble for not hitting their growth targets. The tendency is to retreat to cost-cutting maneuvers.

You see this by visiting blogs about these companies. Bloggers inevitably will say,

"We were once a very innovative company. Now we spend all our time adhering to the prophets of bureaucracy. We don't spend enough time with clients. We don't spend enough time experimenting, and yet we wonder why we don't have more radical innovation."

Dividend: Any specific examples?

DeGraff: I can't think of an industry that suffers more from this risk-avoidance maneuver than the pharmaceutical industry. The formula for success was spending big on R&D to create blockbuster drugs. These drugs came from a diversified portfolio of radically different tracks of experimentation generated by independent-thinking, brilliant doctors. Over time, the expense of this type of R&D become prohibitive, and pharmaceutical companies adopted industrial models for efficiency and applied them to their drug discovery practices. Predictably, these firms are more cost efficient but often at the expense of new blockbuster drugs. They are now prisoners of their own innovation systems and processes. If the innovation systems that exist today had existed 20 years ago, I suspect not nearly as many of the blockbuster drugs we take for granted would have made it to the market.

As is often the case, the systems and processes put in place to help the company effectively manage large-scale innovation at some point have the potential to become counterproductive and actually become the barrier to success. I'm not against stage-gating systems or hurdle rates, but beware of their bias and keep them in their place. If you let them pervade everything in the organization, you may find yourself in search of a growth engine.

Dividend: How does a firm or industry become strangled by its own processes?

DeGraff: When a company starts, it has a *create* form of innovation. It is searching for organic growth. It is looking for radical innovation because it can't compete on scope or scale with more heavily resourced, mature firms. It relies on ingenuity and imagination. The problem with those firms is that they often don't make any money, or they grow so fast that they blow up. Look at Silicon Valley or biotechnology now. These firms have high mortality rates.

With luck, a start-up will find a manager who has mastered the *compete* form of innovation. Competitive innovators focus on the short term, on the three or four areas

that are going to make money quickly. The Ross School of Business is well known for producing these terrific *compete*-type leaders. You see them at Microsoft, General Electric and Procter & Gamble. They are very smart about money and know how to increase revenue quickly.

If that works, then the firm has to do two things simultaneously — figure out how to sell that innovation and develop a client base and organization around it. The firm must have *collaborate* innovators who are interested in community and culture and developing competencies and knowledge. Second, *control* innovators must come on board to develop scalable processes and systems. They are the people who are interested in quality and productivity and know how to make and distribute a billion units worldwide.

By the time the firm grows up and has the scope and scale it wants, the practices found in the largest parts of the organization are contrary to the practices used to start the firm. Leading innovation is about competing values. The high-risk breakthrough *create* innovator must make the handoff to the low-risk incremental *control* leader who will bring productivity and quality. The key is finding and developing leaders who can integrate these opposing tensions.

Dividend: In your book you refer to innovation black belts as "creativizers." What is a creativizer?

DeGraff: Creativizers are those people who don't have a technical role in making innovation happen but make it happen anyway. There is always the HR person who knows how to hire someone who is substantially different than the traditional hiring profile. There is always an accounting person who knows how to take a charge differently on the books to allow that \$25,000 experiment. There is always a vice president on the capital committee who is pro-innovation and can convince others to approve that very interesting marketing campaign or help a new product over the hurdles. These people are the creativizers.

Dividend: What is the secret to hiring and retaining creativizers?

DeGraff: You don't produce creativizers. A pro-innovation constituency exists in every firm. The first challenge is identifying these people. The second challenge is supporting them with freedom, resources and encouragement. The third challenge is helping them connect with each other.

Otherwise, they can be disenfranchised.

Dividend: What firms successfully champion their creativizers?

DeGraff: My favorite examples of creativizers being recognized and rewarded come from early in my career. I was a senior executive at Domino's Pizza. We called these creativizers Olympians. We gave them special privileges and had regular forums to listen to their advice. After I left Domino's, I was on an advisory board for Apple Computer. They had created the Apple Fellows program for individuals who demonstrated self-authorizing behavior, took ownership to advance a product to the market and navigated the company system to implement substantive change. At Domino's and Apple, we didn't have to change all the business processes or reallocate resources. We just empowered the people who knew how to get through the organizational system to make innovation happen.

Dividend: How do you find and support the individuals who can take a project from concept to implementation so they can develop their talent?

DeGraff: Some of these ambidextrous leaders are born that way. But most of them learn through apprenticeship, similar to how the medical profession trains doctors. Medical students learn by observing, then practicing under the watchful eye of a master and finally by teaching others. It is a model that we see in innovative organizations: See one, do one, teach one.

My favorite example of training through apprenticeship is at W.L. Gore. The firm's CEO says that his job is to develop an understudy, a project that takes years. People learn by hearing what worked and what didn't. Great innovators are lifelong learners; with these people, there is a lot of mess and struggle and doing things over and over again.

Organizations that reward first-time perfection don't have a strong innovation capability and usually are not high-growth organizations. Remember, innovation is connected to organic growth. You have to make something new or sell it to someone new in order to grow organically, as opposed to growing inorganically by acquiring another company.

To grow you have to have a sufficient innovation culture and competencies and enough people who are involved in striving and learning. Innovative organizations learn. That is the ultimate secret to enterprise-wide innovation and growth. ☑