The Innovator's DNA

Mastering the Five Skills of Disruptive Innovators

featuring Clay Christensen and Hal Gregersen

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The Innovator's DNA: Mastering the Five Skills of Disruptive Innovators

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OVERVIEW
While the majority of people see creativity as being related to a person’s genetics, this isn’t true. What makes people great innovators is not their genetic makeup, but a set of skills and behaviors. The good news: anyone can learn, practice, and master the skills necessary to become a disruptive innovator.

The key skill is developing associative thinking, which is the ability to connect previously unconnected ideas. Actions that can enable new types of connections include questioning, observing, networking, and experimenting. By being more attuned to these behaviors, by allocating time to them, and by practicing them, they can be mastered. Mastery results in the constant production of innovative new ideas.

CONTEXT
Professors Christensen and Gregersen shared insights from their new book, The Innovator’s DNA: Mastering the Five Skills of Disruptive Innovators. They described the research that underpinned the book, explained the five skills, and provided examples of how to use these skills.

KEY LEARNINGS
Discovering the “Innovator’s DNA” came from research among great innovators.

Clay Christensen’s work on innovation has looked at patterns of innovation in industries and companies. But he realized that he wanted to learn more about how individuals come up with innovative ideas and make innovations happen.

So, along with Hal Gregersen and Jeff Dyer, Christensen identified the 100 most innovative companies in the world and interviewed their founders and current CEOs. They then conducted surveys among 5,500 innovators and managers.

The goal: understand the skills that innovators use to produce new products, services, processes, and business.

**Being able to innovate is not a genetic capability; it can be learned, practiced, and mastered.**

About 75% of people believe that the following is a true statement: “Studies by psychologists show that creativity is largely a genetic endowment.” By agreeing with this statement, people essentially are saying that they think creativity and innovation are the providence of a select few.

But that statement is actually false. Research among identical twins (who obviously have the same genetics) who were raised apart in different environments shows that genetics only accounts for 30% to 35% of a person’s creativity. About two-thirds of a person’s ability to generate ideas is based on their experiences and the skills developed during their life.

The conclusion: People are not “born innovators.” Innovators have certain skills that are developed.

**Disruptive innovators have mastered five essential skills.**

Innovators see problems and transform these problems into solutions. That is what great innovators like Steve Jobs (Apple) and Jeff Bezos (Amazon) have done. And in turning problems into solutions, they think differently. The questions are, “How do innovators think differently? And how do they act differently?”

Through their research, the speakers have identified five skills and behaviors that yield innovative results—and that comprise “the Innovator’s DNA.” They are:
### Associating

Associational thinking means associating or connecting things that were not previously connected.

“Creativity is connecting things.”
—Hal Gregersen, quoting Steve Jobs

Two examples:

1. **The iPod.** While working to simplify the design of the iPod, a designer was playing with the spin dial of a combination lock. He saw the spin dial as a way to make the iPod’s interface simple and user friendly. Creativity came by connecting two unrelated things.

2. **Salesforce.com.** While on a sabbatical, Oracle executive Marc Benioff thought about how Amazon.com was providing various cloud-based technology services for small businesses. He connected this thought with his expertise in enterprise software to develop Salesforce.com, which is cloud-based enterprise software for small enterprises.

While children are naturally good at associative thinking, adults are not. But it is possible for adults to engage in associative thinking by forcing and by feeding. One way is to make associating a discipline, to be conscious of it, and to allocate time for it. For example, there is an idea-generator app that presents three seemingly unrelated words. Ideas are generated by looking for connections.

The other four innovation skills all are behavioral, and help individuals make connections of unrelated ideas.

### Questioning

A skill of innovators is to constantly ask questions such as What if? Why not? What is keeping us from...? What are the barriers to...?

When former Procter & Gamble CEO A.G. Lafley visited a country, he went into retail stores asking a barrage of questions, and then went into consumers’ homes asking more questions. He wanted to know how people used P&G’s products and whether they were delighted.

Likewise, innovator David Neeleman is known for asking question after question. Neeleman founded JetBlue, which innovated with paperless ticketing and televisions on the backs of seats. In his newest venture, Azul airlines in Brazil, Neeleman learned by asking questions that a barrier to customers flying was the difficulty and expense to get to the airport. So, based on learning from the questions it asked, Azul innovated by starting its own bus service to get people to the airport.

Professor Gregersen suggested that groups trying to generate new ideas take just 15 minutes to ask every possible question they can think of about a problem or possible solution. (He termed this process “Questionstorming.”) Just the process of questioning will unlock multiple ideas and opportunities.

“The important and difficult job is never to find the right answers; it is to find the right question.”
—Hal Gregersen, quoting Peter Drucker

### Observing

Another way to trigger new type of connections is to get out into the world and observe things. Combining observing and questioning can yield great new ideas.

For example, Scott Cook observed his wife’s frustrations as she paid the family’s bills and balanced her checkbook. Cook, who also had been exposed to early generations of Apple software, connected these two unconnected things and concluded that simple dropdown software could be used to help consumers manage their checkbooks and help small business owners do their bookkeeping. From these insights Cook founded Intuit, which makes Quicken software for consumers and QuickBooks for small businesses.

Another example: Dollar General Stores observed that many customers came into the store on Tuesday mornings and walked through the store somewhat aimlessly, without specific items on their shopping list. Confused by this...
observation, researchers asked these customers, “What are you doing? Why are you here?”

Their answer was that trucks arrived on Mondays with overstocked items. As a result, on Tuesdays, the aisles were filled with an unpredictable selection of items, making the shopping experience like a treasure hunt. Shoppers came on Tuesday mornings because they learned about Dollars General’s arrival schedule and loved the treasure hunt experience, an insight only gleaned through observation and questioning.

“If you observe, you can learn ‘what.’ But if you also ask questions, you can learn ‘why.’”
—Clay Christensen

Networking

While some people get ideas from watching others, another way to generate ideas is by networking with other people. This isn’t networking for personal advancement; it is networking specifically focused on idea generation.

For this type of networking, the key criterion is to network with people that are “not like me.” This can be people from different backgrounds, with experience in different industries, and with very different perspectives. It is from these differences that new connections will arise.

Experimenting

New connections can be created by all sorts of different experiences. Ideas, products, and processes all can be taken apart. New ideas can be prototyped and piloted.

The conclusion: Thinking differently requires associating and connecting previously unconnected ideas. Thinking differently requires acting differently. Behavioral skills that result in acting differently are questioning, observing, experimenting, and networking. Mastering these skills will result in thinking differently, which will result in innovative new ideas.

OTHER IMPORTANT POINTS

Cultural differences. There is no data indicating that one gender, nationality, or culture is more creative or innovative than another. But there are differences in the innovations that result based on the particular problems faced in a certain country.

Innovation inhibitors. Innovation doesn’t take place in organizations when managers delegate it to others.

Convincing leaders to innovate. There definitely will be leaders who don’t see value in trying to associate or who are resistant to acting differently by questioning, observing, experimenting, or networking. Don’t try to convince them by encouraging them to act differently. First, teach them how to think differently. Teach them about the theory of disruption. Provide scholarly articles and case studies. This is less threatening and can be more effective in changing how they think. Once they think differently, they will be open to acting differently.
BIOGRAPHIES

Clay Christensen
Professor of Business Administration, Harvard Business School

Clayton M. Christensen is the Robert and Jane Cizik Professor of Business Administration at the Harvard Business School, with a joint appointment in the Technology & Operations Management and General Management faculty groups. His research and teaching interests center on the management issues related to the development and commercialization of technological and business model innovation.

Professor Christensen is the architect of and the world’s foremost authority on disruptive innovation, a framework which describes the process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves ‘up market,’ eventually displacing established competitors. Consistently acknowledged in rankings and surveys as one of the world’s leading thinkers on innovation, Christensen is widely sought after as a speaker, advisor, and board member. His research has been applied to national economies, start-up and Fortune 50 companies, as well as to early and late stage investing.

His seminal book *The Innovator's Dilemma* (1997), which first outlined his disruptive innovation frameworks, received the Global Business Book Award for the Best Business Book of the Year in 1997, was a *New York Times* bestseller, has been translated into over 10 languages, and is sold in over 25 countries. He is also a four-time recipient of the McKinsey Award for the *Harvard Business Review*’s best article and received a Lifetime Achievement Award from the Tribeca Film Festival in 2010.

Professor Christensen holds a B.A. with highest honors in economics from Brigham Young University (1975), and an M.Phil. in applied econometrics and the economics of less-developed countries from Oxford University (1977), where he studied as a Rhodes Scholar. He received an MBA with High Distinction from the Harvard Business School in 1979, graduating as a George F. Baker Scholar. He was awarded his DBA from the Harvard Business School in 1992. He holds four honorary doctorates and an honorary chaired professorship at the Tsinghua University in Taiwan.

Hal Gregersen
Senior Affiliate Professor of Leadership, INSEAD

Hal Gregersen is a Senior Affiliate Professor of Leadership at INSEAD where he pursues his vocation of executive teaching, coaching, consulting, and research by exploring how leaders in business, government, and society discover provocative new ideas, develop the human and organizational capacity to realize those ideas, and ultimately deliver positive, powerful results.

Gregersen’s newest book, *The Innovator’s DNA: Mastering the Five Skills of Disruptive Innovators* (Harvard Business Review Press), flows from a path-breaking international research project conducted with Jeff Dyer (Wharton/BYU) and Clayton Christensen (Harvard Business School). The eight-year study explored the fundamental question of where disruptive innovations come from and what roles senior executives, managers, and employees play in the creation of highly innovative teams and organizations.

Before joining INSEAD, Gregersen taught at the London Business School, Tuck School–Dartmouth College, Helsinki School of Economics, Fletcher School of Law and Diplomacy–Tufts University, Brigham Young University, Thunderbird, and Turku School of Economics as a Fulbright Fellow. In 1983 he completed his masters in organizational change from Brigham Young University and in 1989 a Ph.D. in business administration from the University of California, Irvine. Gregersen has co-authored numerous books, articles, book chapters, and cases on innovation and change in business journals such as *Harvard Business Review*.

Sarah Cliffe (Moderator)
Executive Editor, Harvard Business Review

Sarah Cliffe is the Executive Editor of the *Harvard Business Review*. Sarah has been an editor at HBR for 12 years and was formerly editor in chief of MIT’s *Sloan Management Review*.

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