Clayton Christensen's Innovation Brain

The landscape has changed in the 10 years since *The Innovator's Dilemma*, but it's still the seminal work on disruption

by Jena McGregor

Clayton Christensen is a giant in the world of innovation thinkers. And that's not just because the Harvard Business School professor stands 6 feet, 8 inches tall. Christensen's first book, *The Innovator's Dilemma*, became a bible for technology executives and Internet entrepreneurs not long after it was published 10 years ago. To date, it's sold 500,000 copies worldwide, while in 1999, Christensen was described by *Forbes* as "Andy Grove's Big Thinker" and featured on the magazine's cover with the former Intel chairman and Silicon Valley sage.

The book's theme—that good management is no guard against the disruptive power of new entrants who go after new customer groups or low-end markets—remains important today. "More than ever it has become shorthand for a classic problem," says Patrick Whitney, director of the Institute of Design at the Illinois Institute of Technology. "People never have to explain it, they just mention Clayton's name or *The Innovator's Dilemma* and everyone gets what the problem is."

Ten years later, however, the innovation landscape is rather different. Globalization has exponentially expanded where threats lie. Design thinking and its focus on the customer has captured the minds of managers. And as chief executives increasingly look to reinvent their business models, innovation is no longer defined in terms of mere technological breakthroughs. So how relevant is a book that chronicles the upending of the disk drive, steel, and earth excavator industries?

*Ideas Still Resonate*

Very, says Robert Sutton, professor of management science and engineering at the Stanford Engineering School and co-founder of Stanford's d.school. "There are very few books, whether you do innovation in the academic world or in the business world, that you have to understand equally well," he says. "You have to know it." In essence, the dilemma Christensen describes—how to serve your core business while finding new markets and watching out for new entrants in your blind spot—is as critical today as it was 10 years ago.

While reading it today can plunge you into a bit of a time warp—"Internet appliances," those devices for the kitchen counter that would only browse the Web and respond to e-mail, did not
upend the PC industry—Christensen's ideas still resonate. Criticisms of the book tend to surround its lack of solutions, which Christensen tried to correct in his follow-up, *The Innovator's Solution*, which was published in 2003 to less fanfare.

One reason the first book was so well-received, says Roger Martin, the dean of the Joseph L. Rotman School of Management at the University of Toronto, is that Christensen doesn't criticize managers, as many ivory tower professors do in their books. Rather, a major theme is that great managers miss disruptive innovations precisely because they're focused on their customers, working hard to create returns for shareholders, and trying to do everything right.

"He takes a 'there but for the grace of god go you,' positive, blame-free approach [that managers both respond to and appreciate]," Martin says.

*BusinessWeek* Associate Editor Jena McGregor caught up with Christensen on June 11, exactly 10 years after the release of his book. Here are edited excerpts of their conversation:

**Back in 1997, did you ever think the book would achieve the sort of popularity that it did?**

I thought I had a good idea. It emerged from my doctoral thesis on the disk drive industry, and at the beginning I thought it applied a bit in computers and disk drives, but I didn't know how far it would reach. Then one by one people read the research and said this is "exactly what is happening in my industry." I really didn't understand that it was as generalized a phenomenon as it has turned out to be.

**Your book focuses heavily on disruptions that are caused by advances in technology. More than ever, however, managers are defining "innovation" in a broader context, from breakthrough business processes to business models to customer experiences.**

I think when I wrote *The Innovator's Dilemma*, my brain really was a technological brain and I was looking for a technological explanation. So I called it "disruptive technology." Then as I helped people to try and use the ideas, it became very clear there really isn't anything [it doesn't apply to].

Disruption really is a business model innovation. Most disruptions have a technological enabler that [allows] people to make simpler products that are more affordable and accessible for people. In *The Innovator's Solution*, I recanted. We called it disruptive innovation [rather than disruptive technology]. Basically I was wrong in labeling it a technological phenomenon.

**In *The Innovator's Dilemma* you warn that the maxim "staying close to your customers" can lead you astray. Wouldn't a cursory reading of the book say "don't listen to your customers?"**

You're exactly right. The cursory reading is "don't listen." The deep reading is you have to be careful which customers you listen to, and then you need to watch what they do, not listen to what they say. This is catching on with one of the big automobile companies in Detroit. If you look for the jobs that people hire a car to do, the opportunities for innovation are extraordinary.

There are about 30 million Americans for whom [a car] serves as their office. Isn't it interesting that nobody has designed a car to work as an office? They pull up to Starbucks (SBUX) and go in to use their T-Mobile hot spot or if they're in Silicon Valley they'll pull up next to someone's apartment building to mooch off their Wi-Fi because they can't access the Internet in their car.
They stop at a stoplight, their notebook computer falls onto the floor. They can't recharge their computer because the electrical system was not designed to do it and there's no docking station. They throw sales literature in the backseats. Nobody's designed a car to do that job. If you understand the job, the opportunities to differentiate are just extraordinary.

To do that, though, you do have to "stay close to your customers" to see what jobs they need. In a sense, they will lead you to the answer, not astray. Shouldn't Dilemma have been clearer on that, or expanded on that idea?

Yes. The problem is when you say "listen to your customers," your customers are only going to lead you in a direction that they want to go in. Generally, that will never lead you to disruptive growth. You've got to find that new set of customers, and listen to them and follow them. That's the trick. Once you have customers, they hold you captive to their needs.

Your book also focused on entrants disrupting established players at the low end. What do you make of a company like Starbucks? Didn't it come in at the high end with its $3 lattes?

It's interesting. The principle, which is a lot clearer to me 10 years later, is that disruption is a relative phenomenon. What Starbucks did was to come into the middle of the market. They disrupted the sit-down restaurants. The job people hire Starbucks to do is to help them to sit down and have a conversation, have an informal meeting. Before Starbucks, you had to go to a restaurant to sit down and have lunch, which was a lot more expensive. Starbucks disrupted that. They made it affordable and simple for a lot of people to go in and have these discussions.

You've said "the most widespread and dangerous misunderstanding of the model is the equation of 'new' or 'breakthrough' with disruption." Yet today, I feel like "disruptive" has become just that: A synonym executives use when they're describing something big or bold. Why is that dangerous?

Because it causes them to think that, "I'll just take whatever hobby horse I have, because Clay's study showed that disruptive products create these new growth markets. I'll cause everyone to believe my idea's going to do that." In fact, big technological leapfrogs rarely create new growth. Almost all of them are defensive in character. The equation of disruptive with new and radical causes people to target markets that don't exist.

Andy Grove recognized this a lot sooner than I did. There are many prior connotations in the English language for the word disruption. He was worried that the word would be so misused that he called it "the Christensen effect" internally. The problem was I couldn't call it the Christensen effect. In retrospect, it would have made things a lot clearer had I found a word that didn't have so many other connotations. It gets hijacked.

I hear a lot of managers today talking about trying to create "innovators at all levels" and building innovation into every corner of a vast corporation. Is that a misguided idea? Isn't that contradictory to what you say in Dilemma, which is that disruption happens in "spin-out organizations," as you call them?

Generally you create a lot of hype. People come up with lots of new ideas, but nothing happens. They get very disillusioned. Never does an idea pop out of a person's head as a completely fleshed-out business plan. It has to go through a process that will get approved and funded. You're not two weeks into the process until you realize, "gosh, the sales force is not going to sell
this thing,” and you change the economics. Then two weeks later, marketing says they won't support it because it doesn't fit the brand, so we've got to change the whole concept.

All those forces act to make the idea conform to the company's existing business model, not to the marketplace. And that's the rub. So the senior managers today, thirsty for innovation, stand at the outlet of this pipe, see the dribbling out of me-too innovation after me-too innovation, and they scream up to the back end, "Hey, you guys, get more innovative! We need more and better innovative ideas!" But that's not the problem. The problem is this shaping process that conforms all these innovative ideas to the current business model of the company.

What are you working on today?
Two books that will be finished by this summer—one looking at the problems of why our health-care system is so expensive and inaccessible and [another looking at] why our public schools struggle to improve. Then I'm working on another project I think is really exciting [about] the misapplied and misleading methods of financial analysis. The core idea is many of the programs we teach are fundamentally biased against innovation. There are just a whole bunch of paradigms of financial analysis that really lie at the root cause of companies' under-investments in innovation.

As an example, discounted cash flow or net present value is the most commonly used method to determine what an innovation is worth today. But the mathematics have an implicit assumption within them that if we don't do this innovation, the way things are today will maintain themselves in the future. That's not true. The company's current financial condition will not persist. By comparing the innovation against the do-nothing scenario, you're biased.

Is there a better way?
There's a method that's the brainchild of Rita McGrath at Columbia and Ian Macmillan at Wharton called "discovery-driven planning." It's a much better way to assess the value of projects. Most companies, when they look at the financial projections [of a potential innovation project], if they look good, they do it. If they don't, they don't.

But the desirability of attractive numbers has never been an issue. Why shine the spotlight on the numbers? Rather, a better way to do it is: We all know how good the numbers need to look for this to be attractive. But what assumptions have to prove true in order for those numbers to materialize out of this innovation? So you focus the spotlight on what assumptions have to prove true, and you launch a project to test those assumptions. It's a much better way.

If you combine Rita's work with mine—that a disruption always creates market capitalization—and if one of the assumptions relates to what job customers need to do when they hire a company's product, the probability of success and of it being big can be assessed without even looking at numbers.

Who or what do you think will disrupt Google (GOOG) or Apple (AAPL)?
It's hard for me to see what will disrupt Google. I think they've got a pretty good run ahead of them. Chapters five and six of The Innovator's Solution describe how at the beginning phases of the industry, in order to play that game successfully you really need to have a proprietary, optimized, end-to-end architecture to your product.
Apple sure has that. That's why they've been successful. But just watch the [competitors'] advertisements that you hear for the ability to download music onto your mobile phone. Music on the mobile phone has to be downloaded in an open architecture way from Yahoo! Music or someplace else [other than iTunes]. Which means it's clunkier, not as good. Mobile phones don't have as much storage capacity, nor are their interfaces as intuitive [as iPods]. But for some folks, they're good enough, and the trajectories [of people using their phone as a medium for listening to music] just keep getting better and better.

So music on the mobile phone is going to disrupt the iPod? But Apple's just about to launch the iPhone. The iPhone is a sustaining technology relative to Nokia. In other words, Apple is leaping ahead on the sustaining curve [by building a better phone]. But the prediction of the theory would be that Apple won't succeed with the iPhone. They've launched an innovation that the existing players in the industry are heavily motivated to beat: It's not [truly] disruptive. History speaks pretty loudly on that, that the probability of success is going to be limited.

McGregor is BusinessWeek's management editor.
Clayton Christensen's Innovation Brain. The landscape has changed in the 10 years since The Innovator's Dilemma, but it's still the seminal work on disruption. Jena Mcgregor. Clayton Christensen is a giant in the world of innovation thinkers. And that's not just because the Harvard Business School professor stands 6 feet, 8 inches tall. Christensen's first book, The Innovator's Dilemma, became a bible for technology executives and Internet entrepreneurs not long after it was published 10 years ago. To date, it's sold 500,000 copies worldwide, while in 1999, Christensen was described by Forbes as "Andy Grove's Big Thinker" and featured on the magazine's cover with the former Intel chairman and Silicon Valley sage. Clayton Magleby Christensen (April 6, 1952 â€“ January 23, 2020) was an American academic and business consultant who developed the theory of "disruptive innovation", which has been called the most influential business idea of the early 21st century. Christensen introduced "disruption" in his 1997 book The Innovator's Dilemma, and it led The Economist to term him "the most influential management thinker of his time." He served as the Kim B. Clark Professor of Business Administration at the Harvard Clayton Christensen and his family visit with Michael Horn and his twin daughters just one month after they were born. (Photo by Tracy Kim Horn). With Clay Christensen's passing this past week, the world lost a luminary who leaves behind a treasure trove of writings, recordings, and impactful relationships to inspire innovators and thinkers in all fields for generations to come. As I read biographies of luminaries like Albert Einstein, I see echoes of Clayâ€”people who were obsessed with discovering truth and causality in the world. By creating other â€œmini-Clays,â€ as I often call myself (half the height and half the brains), he created disciples who had a clear stake in the ideas gaining ground and having a positive impact. Clayâ€™s thinking even pervaded my marriage vows. Disruptive innovation is a theory developed by Clayton Christensen to describe the way a new entrant displaces incumbent businesses. Here are four key concepts to know. Disruptive innovation has been a buzzword since Clayton Christensen coined it back in the mid 1990s to describe the way in which new entrants in a market can disrupt established businesses. Itâ€™s gained even more prominence in the past two decades as companies like Uber, Lyft, Etsy, and countless other startups have emerged with a goal of changing their respective industries. For a term thrown around so frequently, itâ€™s surprising how often itâ€™s misunderstood. Christensen's seminar anecdotes also mention that Grove reminded him soon after The Innovator's Dilemma was published that intrapreneurship and resource allocation were key model concerns, and not just â€”killer app' technologies. Christensen's research into Disruptive Innovation occurred as interest was waning about first-generation Business Process Reengineering interventions. If the widely held social image of Australia as the â€”lucky country' fits Christensen's Sustaining category, the Disruption social image is closer to Silicon Valley IT firms and Hollywood film production environments. In February 2006 the Business Council of Australia (BCA) argued for a generalist approach to R&D that recognises incremental innovation and adaptation of global â€”best practices"