Disruption 2020: An Interview With Clayton M. Christensen

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CLAYTON M. CHRISTENSEN, INTERVIEWED BY KAREN DILLON

In the decades since Clayton M. Christensen first shared his Theory of Disruptive Innovation with the world, his thinking has led to the creation of billions of dollars of revenue, hundreds of companies, and an entirely new paradigm for how industry entrants upend established giants. Karen Dillon — Christensen’s longtime collaborator and guest editor of this special issue of MIT Sloan Management Review — had a chance to sit down with him before his death in January to learn how he had refined his thinking, what the future of innovation looked like through that lens, and what questions he was still wrestling with. This is an edited version of their conversation.
MIT Sloan Management Review: Over the years, the phrase disruptive innovation has come to mean all manner of things to people. But the broad, sweeping implication that “disruptive” is synonymous with “ambitious upstart” is not correct, is it? How would you like to define disruptive innovation for the record?

CLAYTON M. CHRISTENSEN: Disruptive innovation describes a process by which a product or service powered by a technology enabler initially takes root in simple applications at the low end of a market — typically by being less expensive and more accessible — and then relentlessly moves upmarket, eventually displacing established competitors. Disruptive innovations are not breakthrough innovations or “ambitious upstarts” that dramatically alter how business is done but, rather, consist of products and services that are simple, accessible, and affordable. These products and services often appear modest at their outset but over time have the potential to transform an industry. Robert Merton talked about the idea of “obliteration by incorporation,” where a concept becomes so popularized that its origins are forgotten. I fear that has happened to the core idea of the theory of disruption, which is important to understand because it is a tool that people can use to predict behavior. That’s its value — not just to predict what your competitor will do but also to predict what your own company might do. It can help you avoid choosing the wrong strategy.

You have been a big proponent of the benefits of causal theory. What do you think of the argument that big data obviates the need to seek causality?

CHRISTENSEN: Well, it’s important to first recognize that the data are not the phenomena. They are a representation of the phenomena. Also, we must recognize that God did not create data; any piece of data you or I have ever encountered was created by a human being. Unable to fully capture this wonderfully complex world, we human beings use our bounded rationality to make “decisions” about what aspects of the phenomena to include, and which to exclude, in our data.

These decisions become embedded in the tools we use to create and process data. By definition, these decisions reflect our preexisting ways of thinking about the world. These ways of thinking are sometimes good and reliable — guided by known causal relationships. But oftentimes they are not. No quantity, velocity, or granularity of data can solve this fundamental problem.

I believe that in order for our scientific understanding of the world to progress, we must continually crawl inside companies, communities, and the lives of individuals to create new data in new categories that reveal new insights.

As an example, in my early research on the disk drive industry, I catalogued by hand every disk drive that had been bought or sold over the years after scouring hundreds of “Disk/Trend” reports. And while I was starting to see a pattern of the low-end companies quickly rising to prominence and challenging established leaders, it wasn’t until I went out to Silicon Valley and spoke with executives in the space that I fully grasped how incapable incumbent leaders are of responding to disruptive entrants. The data alone would have never generated those insights.

Big data also tends to gloss over or ignore anomalies unless it’s crafted carefully to surface these to humans. That is, big data tends to be far more focused on correlation rather than causation and as such ignores examples where something doesn’t follow what tends to happen on average. It’s only by exploring anomalies that we can develop a deeper understanding of causation. If you think about it, following a big data approach is what powered our understanding of the sun, moon, stars, and Earth for years, but it was only when Galileo peered through a telescope that we could start to understand more deeply how these celestial bodies moved in relation to one another.

You have commented that the inability to create disruptive growth helps explain Japan’s economic malaise. Do you worry that the series of mergers resulting in bigger and bigger companies that seem to primarily focus on stock buybacks is creating the same conditions for the U.S.?

CHRISTENSEN: I absolutely worry about this. In the latest book that you and I wrote together, The Prosperity Paradox, we describe three types of innovation, all of which have a different impact on the
growth of a firm and — by extension — a nation. **Sustaining innovation**, which most understand, is the process of making good products better. This is important for any economy, but once a market is mature, it generates little net growth in terms of new factories, new jobs, new technology investments, and so forth. There is also **efficiency innovation**, which is when a company tries to do more with less. By their very nature, efficiency innovations don’t create new growth, because their purpose is to squeeze more out of what you’re putting in. They generate free cash flow for companies, which is important, but if not reinvested properly, that cash doesn’t necessarily lead to new growth. A third type of innovation consists of developing simple products for unserved populations who historically couldn’t afford or didn’t have access to something. These are what we call **market-creating innovations**, meaning they build a new market for new customers. These innovations are the source of growth in any economy, as they pull in resources, investment, operations, employees, and infrastructure in order to serve this larger population of customers.

My sense is that we in the United States, like many other developed countries, are investing far too much energy in efficiency and sustaining innovations, and not enough in market-creating innovations. Buybacks are not inherently wrong, but at an extreme they indicate an inability of a firm (and perhaps an entire economic system!) to identify market-creating opportunities. There are many reasons why this is occurring, but despite some recent incremental improvements to GDP and unemployment, the long-term economic picture doesn’t seem too rosy to me as long as this more fundamental problem goes unaddressed.

**In 2013, you made an off-the-cuff prediction that 50% of the 4,000 colleges and universities in the U.S. would go bankrupt in 10 to 15 years. I know that at the time, you were saying that in a spontaneous conversation, but this observation has been cited many times since as the “doomsday knell” of higher education. Now that you’ve had more time to think through this prediction, do you want to revise it?**

**CHRISTENSEN**: I’ll clarify a few things about the prediction. Rather than focus on bankruptcy, which is hard for colleges to declare (for regulatory reasons), what we’ll ultimately see is a lot of college closures and mergers. Since 2015, 14 schools have closed and nine have merged in New England alone. A new consulting firm was recently developed to help colleges merge. So this problem is not going away. I think 50% is on the high end of the scale, but not out of the realm of possibility, and 25% to 30% of colleges failing over the next couple of decades is very realistic.

My colleagues have been extremely insightful and have added enormous precision and insight to what I predicted many years ago. Michael Horn, one of my coauthors on *Disrupting Class* and a co-founder of the Clayton Christensen Institute, has recently written a very detailed summary of what in reality was a prediction of 25% that we made together in *The New York Times* in 2013. Although disruption — in the form of faster, more affordable, and more convenient college alternatives powered by online learning — is accelerating and a huge threat to established institutions, ultimately I’ve always felt that the bigger imminent danger is that their business models simply aren’t sustainable.

**We’d love to hear your thoughts on the nature of disruption today versus two decades ago. How has the threat to incumbents evolved? How has the opportunity to disrupt established markets transformed? We assume that everything has sped up and that the threats of displacement are greater today — but is that really so?**

**CHRISTENSEN**: The mechanics of disruption are the same as ever, but recent technological and business model innovations present unique opportunities and challenges for both incumbents and entrants. For example, the hotel industry hadn’t been disrupted for decades, only to be completely caught off guard by the likes of Airbnb. The internet, combined with near-ubiquitous mobile access, is continually creating very creative entry points for companies to target nonconsumers with more affordable offerings. So I don’t believe that the threat of displacement is necessarily greater, but certainly the fact that digital platforms can emerge and expand is something that I just hadn’t conceived of early in our research and deserves further study.
Does the rise of “digital transformation” present any anomalies to your theories?
CHRISTENSEN: Certainly there are anomalies waiting to be discovered, and further research into digital-focused firms will yield profound insight into the boundaries of disruptive innovation theory. But I believe that the fundamental questions we’ve been asking for decades now apply just as much in a digital context as they do in an analog one. Who are your best customers? What is your organization capable or incapable of doing? What “jobs” are you trying to help customers get done in their lives? In what circumstances should you integrate, and in what circumstances should you modularize your firm’s and product’s architecture? Who are the non-consumers, and what is limiting their access? These strategic questions are universal.

The Theory of Disruptive Innovation predicts what an incumbent will do in the face of a disruptive new entrant. That means incumbents should be well versed in what not to do. So why haven’t more companies solved the innovator’s dilemma?
CHRISTENSEN: Companies certainly know more about disruption than they did in 1995, but I still speak and write to executives who haven’t firmly grasped the implications of the theory. The forces that combine to cause disruption are like gravity — they are constant and are always at work within and around the firm. It takes very skilled and very astute leaders to be navigating disruption on a constant basis, and many managers are increasingly aware of how to do that.

And in my experience, it seems that it’s often easier for executives to spot disruptions occurring in someone else’s industry rather than their own, where their deep and nuanced knowledge can sometimes distract them from seeing the writing on the wall. That’s why theory is so important. The theory predicts what will happen without being clouded by personal opinion. I don’t have an opinion on whether a particular company is vulnerable to disruption or not — but the theory does. That’s why it’s such a powerful tool.

Many of your other theories are vital to understand for companies that not only wish to avoid disruption but also for companies that aspire to be the disrupter. Your Theory of Jobs to Be Done explains how a would-be disrupter nails the right product or offering when an incumbent often can’t get it right. Can you explain what this is and why it’s so powerful?
CHRISTENSEN: My colleagues and I have spent years trying to understand customer behavior — why someone would choose to buy one product or service over other options. What we know is that most companies tend to focus on data to help guide their decisions: They know market share to the nth degree, how products are selling in different markets, profit margin across hundreds of different items, and so on. But all this data is focused on customers and the product itself — not what the customer is trying to accomplish in making the purchase. We believe that there’s a better way to understand that choice. We call it the Theory of Jobs to Be Done.

There is a simple, but powerful, insight at the core of this theory: Customers don’t buy products or services; they pull them into their lives to make progress. We call this progress the “job” they are trying to get done, and in our metaphor we say that customers “hire” products or services to do these jobs. When you understand that concept, the idea of uncovering consumer jobs makes intuitive sense.

Each “job” has not only functional dimensions but emotional and social ones, too. Unless you understand the full context in which your customers are making a choice to “hire” your product or service, you will be unlikely to create the right offering for them. You’ll just be treading water with them until they “fire” your product and hire one that understands them better. Successful disrupters often nail the Job to Be Done with their offering right out of the gate. Incumbents try to layer more bells and whistles on their product to make it appealing, but in reality, they are missing the fundamental insight of what customers are trying to accomplish. That’s why Netflix was so successful in disrupting Blockbuster. Reed Hastings intuitively understood that his customers hired Netflix to relax in their own homes, whenever they wanted. Blockbuster focused on increasing its profitability (for instance, through the horrendous late fees we all sheepishly
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paid) rather than understanding why we chose to hire a video in the first place. Understanding the Job to Be Done provides a road map for successful innovation.

I know that you relish the opportunity to challenge and strengthen your own theories. There is a sign at your office at Harvard Business School that reads “Anomalies wanted.” Are you ever “done” refining your theories?

CHRISTENSEN: I have always welcomed challenges to my thinking. I think understanding anomalies — what a theory doesn’t explain — helps make the theory better and stronger. We refine the theory with those insights. My own thinking about the theory of disruption has evolved tremendously since I first published its findings in 1995. My goal has never been to be right but to find the right answer. They’re very different things. I’ve long believed that asking the right questions is the only way to get to the right answer. And understanding what questions to ask takes real work.

What do you think people misunderstand about the theory of disruption?

CHRISTENSEN: Apart from what you’ve already mentioned, which is that disruption does not mean “breakthrough” or “new and shiny,” far too many people assume that disruption is an event. Rather, disruption is a process. It’s intertwined with the resource allocation process in the firm, in the changing needs of customers and potential customers, and in the constant evolution of technology.

There is a growing set of companies that seem to be more fluid in how they approach strategy — like Amazon, Alibaba, and Tencent. Are these companies inoculated against the innovator’s dilemma?

CHRISTENSEN: This is a very interesting question. I am always wary when we hear that whatever is the high-flying company of the day has solved such a deep systemic problem. Remember, Sears, Digital Equipment Corp., and Eastman Kodak were all once hailed as paragons of good management, until circumstances changed.

That said, there do seem to be some interesting connection points between the companies you mentioned. They have all built organizations that have put the customers, and their Job to Be Done, at the center. They also have demonstrated the ability to manage emergent strategy well. However, they also have been in the fortunate circumstance where their core businesses have been growing at phenomenal rates, and they have had the presence of the founder to help, to personally get involved in key strategic decisions.

One of my former doctoral students, Howard Yu (who now teaches at IMD), noted how important what he called “CEO deep dives” are to wrestling with common innovation challenges, and all of these companies have had the good fortune to have leaders that are ready, willing, and able to do such deep dives. The question for each is, when growth inevitably slows, and when those founders inevitably move on, have they developed the systems, processes, and culture to keep that fluidity? Or, when circumstances change, will the story end the same way it did for other paragons of good management? We will learn something interesting either way.

Anything you got wrong, in hindsight?

CHRISTENSEN: I’ve gotten my share of things wrong. One of the joys of being a professor is that I
am challenged on a daily basis by my students, and I know I’ve learned as much from them as they have from me over the years.

Perhaps most notably, I initially misread the Apple iPhone. When the iPhone first launched, I suggested that Apple had entered late into an established category with a sustaining strategy, and my research showed the odds of success of that strategy was low. I did not see it as disruptive. But then one of my former students, Horace Dediu, taught me that I had framed the problem incorrectly. I viewed Apple as a late entrant into the mobile phone business, where in Horace’s view it was an early mover in the “computer in your pocket” business. Horace was right. And, to its credit, Apple then developed a business model that allowed it to be a portable PC better than anyone else. People forget this now, but when the iPhone launched, the only applications you could run on it were those that were created by Apple. Indeed, the company was famously protective of its interdependent, proprietary architecture. To Steve Jobs’s credit, he and the team created the App Store and opened the architecture up enough to allow an explosion of useful add-ons.

This example reinforced to me the importance of getting the categories right. When someone tells me they are disruptive, the first question I always ask is, “To what?” This is an important question, because disruption is a relative concept.

What questions are you still eager to answer?

CHRISTENSEN: Last year I had a conversation with Marc Andreessen about The Prosperity Paradox, and we were discussing the role firms play in economic growth. Having just come back from an Airbnb board meeting, Marc described how Airbnb gives ordinary people a platform to offer their services, whether they are cooking a meal for their guests, hosting a class, or giving a tour of their hometown. These citizens would otherwise be unable to participate in the tourism industry, but because of the digital platform of Airbnb, they now can.

It occurred to me that in nearly every case, the firms we profiled to demonstrate how economies are built were those that built physical products. This meant they manufactured, distributed, sold, serviced, and designed goods for a non-consuming population, resulting in tremendous growth for their firm and their nation. But Airbnb and others like it don’t have to do any of those things, and yet they are creating opportunities all over the world. I am eager to explore further the growth potential of digital-first firms and understand what growth looks like in the years ahead.

One of the topics I’ve loved exploring with you over the years has nothing to do with technology but something far more important, in my mind. I know you’ve thought a lot about educating children — both in your personal life and in your research. What advice would you give parents of young children about how best to educate their children in today’s tumultuous world?

CHRISTENSEN: One of my favorite quotes says to let people “be anxiously engaged in a good cause.” Far too often, parents smother their children with lists, extracurriculars, and other “good” things so that children don’t learn how to self-manage and regulate their own lives. In our world, that’s a vital skill kids need to have because of how distracted we are becoming.

Your theories have provided guidance not only for the senior statesmen of Silicon Valley but for a new generation of entrepreneurs all around the world. And you may have reached a pop culture pinnacle when you were the answer to a Jeopardy! question a few years ago. But what is it that you would most like to be remembered for?

CHRISTENSEN: I want to be remembered for my faith in God and my belief that he wants all of mankind to be successful. The only way to make this happen is to help individual people become better people, and innovation is the key to unlocking evermore opportunities to do that.

Karen Dillon (@kardillon) is a former editor of Harvard Business Review and coauthor of three bestselling books with Clayton M. Christensen. Comment on this article at http://sloanreview.mit.edu/x/61316.

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