

# Of waves and ripples

Disruption theory's  
newest critic tries to  
make a splash



# About the author

**Michael E. Raynor** is a director with Deloitte Services LP and leader of the Brand & Eminence Theme program. He is the author or co-author of four books, most recently *The Three Rules: How Exceptional Companies Think* (May 2013).

CLAYTON Christensen's theory of disruptive innovation was first offered up to a general managerial audience just shy of 20 years ago, in a 1995 *Harvard Business Review* article on which Christensen was the second author. "Disruptive technologies: Catching the wave" was lead-authored by Joseph Bower, long an *éminence grise* at the Harvard Business School and the chair of Christensen's dissertation committee.<sup>1</sup>

Like Christensen, I completed my doctorate at Harvard Business School; Bower was my dissertation committee chair, and a co-author on my first *Harvard Business Review* article. I worked with Christensen closely for the first time as a participant in a doctoral seminar he led. In 2002, he asked me to collaborate with him on *The Innovator's Solution*, the follow-up to his first book, *The Innovator's Dilemma*, published in 1997.

*Dilemma* really took off in 1999, when Andy Grove, then CEO of Intel, appeared next to Christensen on the cover of *Forbes* under the headline "Andy Grove's Big Thinker." (Christensen is 6'8" and about a foot taller than Grove.) The consonance between disruptive innovation and the dot-com boom made the concepts, and Christensen, part of the business community's zeitgeist. But where many business ideas prove to be bottle rockets that fall as fast and as far as they rose, disruption's trajectory has only been up for the last two decades.

The school of thought and community of researchers and practitioners that have grown up around disruption theory are both a consequence of and a contribution to the success of the ideas. There have been five books on disruption by Christensen, each one with different co-authors, and a great many more by others. My own solo effort on disruption, *The Innovator's Manifesto*, came out in 2011. As a result, disruption theory, like any good theory, has remained a work in progress. Constantly

being questioned, its limits being tested, the theory has matured without senescing, developing a robust core of concepts without slipping into an ossified orthodoxy.

Parallel to this line of development, there appears to have been, for perhaps as long as 10 years, a counter-movement, one that seeks not to identify and correct the flaws of disruption but to discredit it. The latest in this line is a recent article by Jill Lepore in *The New Yorker* ("The disruption machine," June 23, 2014).<sup>2</sup> Lepore, a history professor at Harvard, has an aggressive agenda. She places disruption theory in historical and contemporary context, concluding that it is an unfortunate break from ancient virtues and has become a rhetoric of destruction. She revisits and reinterprets the data upon which Christensen initially based disruption theory, concluding that he distorted the facts. She dismisses the method Christensen used to build the theory. She finds fault with disruption's predictive power, questions the scope of its subsequent application, and blames it for the global financial collapse in 2008.

Here's my summary of Lepore's argument. Disruption theory is wildly popular and widely adopted, but it has no predictive power because it is based on a weak research method, fudged evidence, and invalid logic. Consequently, its use has led to negative consequences and it should be disregarded.

Here's my summary of my rebuttal. Lepore attacks only a caricature of the theory, misunderstands what evidence is relevant, does not appreciate the difference between theory building and theory testing, and ignores nearly 20 years of work by a community of researchers that has challenged, refined, and improved the theory. Consequently, Lepore mistakenly charges the theory for negative outcomes to which it contributed nothing and fails to give it credit for the contributions it has made, and so her criticisms should be disregarded.

**T**HE set-up for the article tells us that Lepore was, for a time, an assistant to Michael Porter, a strategy professor at HBS and perhaps the only management thinker more famous than Christensen. Lepore asserts that Porter was interested in how companies succeed, while Christensen was interested in how companies fail.

Lepore's is the second high-profile article in less than a month to contrast Porter with Christensen. Jerry Useem, in the *New York Times*, explored how the Harvard Business School has been reacting—or, more precisely, not reacting—to the rise of online education in business schools.<sup>3</sup> Useem contrasts Christensen's early and high-profile forays into online education in conjunction with the University of Phoenix with HBS's circumspect development of Harvard's first online offering, which Useem characterizes as more consistent with Porter's theories.

Whether by coincidence or design, Lepore picks up on this narrative arc. Porter is the good guy: She recounts watching him “affably” head out the door to enlighten executives around the world about what it takes to build successful businesses. Christensen, in contrast, is the bad guy, because disruption theory is about failure and destruction, change bereft of any progress.

Lepore's charge of disruption's inherent nihilism is supported with a reference to Josh Linker's *The Road to Reinvention*, which argues that today's business environment is characterized by “fickle consumer trends, friction-free markets, and political unrest,” and which Lepore takes to mean that “the time has come to panic as you've never panicked before.” She then cites Larry Downes and Paul Nunes, who speak of “devastating innovation” and “big bang disruption” in a *Harvard Business Review* article from March 2013. Lepore is priming us to look upon disruption theory with a gimlet eye, slapping Christensen with a paternity suit for these and other frantic, frenetic, and

frenzied exhortations to blow up whatever you have now in favor of anything else, so long as it's new.

There is nothing necessarily wrong with this line of criticism. Christensen's is not the only voice that counts when it comes to extending or testing the theory of disruption, and Lepore is justified in characterizing disruption with a synthesis of Christensen's and others' contributions. Christensen has been explicitly supportive of people elaborating on the ideas. His acceptance speech at the Thinkers 50 in 2013, when he was named the most influential management thinker alive, was devoted to expressing how grateful he is for the work others have devoted to the signature achievement of his professional life.

But that doesn't mean disruption theory can be saddled with responsibility for everything anyone says that invokes the term. “Disruption,” like “innovation,” is a well-formed English word with a non-technical meaning. Christensen attached to that word a very specific meaning. Others can, of course, use it as they wish. But for Christensen's theory to mean what Lepore says it does in the hands of Linker et al., there must be a reasonable link between the uses Lepore finds objectionable and the foundational work upon which disruption theory is based.

Linker's book doesn't mention Christensen even once. (Christian Louboutin, the shoe designer, is about as close as he gets.) Downes and Nunes explicitly position themselves as contrarians, pointing out what they believe to be a “blind spot” in the theory: that it cannot account for the rapid and complete destruction of established companies. The disruption theory that Lepore is holding up to scrutiny is not the legitimate offspring of *The Innovator's Dilemma*, but a Frankenstein's monster, made of unrelated bits and pieces hastily stitched together and artificially animated in order to scare the villagers.

Not only does Lepore cram too much under disruption's tent, she leaves out critical elements of the theory that have been present from the start and considerably built upon since. For example, Lepore makes two common, but avoidable, errors when she describes disruptive innovation as "the selling of a cheaper, poorer-quality product that initially reaches less profitable customers but eventually takes over and devours an entire industry."

First, as explained at length in *The Innovator's Solution*, disruptive innovation need not start with cheaper, poorer-quality products, nor with less profitable customers. There is a second way disruptive innovations can get their start: in

new markets where the competition is with non-consumption and the returns are less attractive either because they are more uncertain or simply smaller in absolute terms. Mobile telephony is perhaps the best example of this. When mobile phones were first introduced, they were much more expensive than landline phones, but they provided

the ability to make calls in circumstances that landline phones were unavailable. Mobile phones weren't really poorer quality, they were just very different. The mobile phone business was not less profitable, but it was much smaller than the landline business. The companies that were able most fully to realize the disruptive potential of mobile telephony separated the mobile division from the landline division and sought to grow this new market rather than merely cream-skim the price-insensitive early adopters. They then rode the declining cost curve and improving feature set of mobile

telephony to create profitable, growing businesses, over time absorbing the smaller and less successful companies that had remained focused on relatively high-end niches.<sup>4</sup>

Second, a successful disruption does not require the devouring of an industry or even the bankruptcy of the incumbents. After all, although mobile telephony has grown at the expense of landline telephony, no major incumbent landline company has gone bankrupt in the United States as a result of mobile telephony's rise. When Lepore says that "Disruptive innovation is a theory about why businesses fail," she is confusing the puzzle that motivated the original research (how do

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companies that seem to be making all the right decisions end up going bust?) and the rhetoric used to popularize it (watch out for disruptors!) with the substance of the theory itself.

This is an understandable mistake. After all, the subtitle of *The Innovator's Dilemma* was, in its first edition, "When new technologies cause great firms to fail." But don't read too much into that. Jerry Coyne, a professor in the University of Chicago's Department of Ecology and Evolution, explains in his book *Why Evolution is True* that *The Origin of Species* says very little about the mechanisms of speciation.

What Darwin explains is adaptation over time. Similarly, disruption theory, despite the book's subtitle, is not a theory of failure but of success: It describes one particular path that new entrants into a product market can take that has a good chance of seeing them build a viable

business. There are other paths one could take—Everett Rogers describes one alternative, diffusion theory.

The message here? Don't judge a book—any book—by its cover.

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**T**HE historical context for disruption comes next. Lepore reviews the evolution of the use of “innovation,” noting that as recently as the late 19th century it had negative connotations. She might have added other examples, such as “visionary,” which used to mean something along the lines of “subject to hallucinations,” but is now a cardinal virtue of effective leaders. She observes, consistent with a widely held view, that innovation as a positive force in economic development began with the work of Joseph Schumpeter in the 1930s and 1940s. (See Thomas J. McCraw's *Prophet of Innovation*.)

Surprisingly, Lepore doesn't take the opportunity to blame Schumpeter for the connection between innovation and destruction. After all, Schumpeter's signature phrase, “creative destruction,” captures the paradox of innovation as a force for both overthrowing the old order and establishing a new one. Instead, she notes that “Christensen, retrofitting, believes that Schumpeter was really describing disruptive innovation.”

I don't think that Christensen ever claimed that Schumpeter was simply a pale foreshadowing of his own work. It's difficult to read everything, but I may have to take the blame for connecting disruption and creative destruction in print. In *The Innovator's Manifesto*, I argued that Schumpeter described the “destruction” half of his famous aphorism but left how the creation part happens largely unexplored. He could do no better than to say that entrepreneurs were a “miracle.” It was my view then, as it is now, that disruption theory explains an important part of how

that miracle happens—and I suggested that we think of disruptive innovation as “creative creation.” Whether or not that's overreaching is a legitimate question, but it is at least the polar opposite of how Lepore has interpreted disruption theory's social significance.

Lepore's case for disruption as destruction rests in part on her assertion that innovation began to make its way into more general discourse in the late 1990s, and achieved ubiquity only after 9/11. Here she is reconnecting disruption with her claim that disruption is “strategy for an age seized by terror.” The one measure we are given to support this linkage is that between 2011 and 2014 there appeared special innovation issues from *Time*, the *Times Magazine*, *The New Yorker*, *Forbes*, and *Better Homes and Gardens*.

This seems rather weak evidence upon which to indict. The year 2011 was a full decade *after* 9/11, so why is 9/11 the watershed date for innovation's entry into the popular consciousness? Was there nothing any closer to the dividing line? Furthermore, as I noted above, Christensen appeared on the cover of *Forbes* in 1999, and *Dilemma* was the stereotypical runaway bestseller before the twin towers fell. If disruption theory was more popular than all but a handful of business concepts have ever become prior to 9/11, and has remained highly popular long after 9/11, it seems to me that the leitmotif of Lepore's argument is largely fabricated. Nine-eleven happened. Disruption theory has long been part of management discourse. Neither has anything to do with the other.

THE evidence in support of disruption theory is then put under the microscope. Lepore reviews the four major case studies in *Dilemma*: disk drives, excavators, retail, and steel. Lepore spends most of this section questioning Christensen's dependent variable: the success or failure of entrant and incumbent firms.

Christensen collected data on every disk drive introduced anywhere in the world between 1977 and 1989. He defined "success" as reaching \$50 million in revenue in constant 1987 dollars for any year between 1977 and 1989, regardless of subsequent continued growth or demise. Lepore asserts that "much of the theory of disruptive innovation rests on this arbitrary definition of success."

You might think that a generally accepted definition of business success was available for all to use. Not so. Business researchers agonize over how to define "success" because the game never ends and no business lasts forever. In other words, everything fails, eventually, and so any definition of "success" will necessarily be arbitrary. How big is big enough? How long is the long term? How high is the sky?

Similarly, "failure" can seem sharp-edged from a distance, but pixelates as you zoom in. How badly does a company have to perform, and for how long, in order for it to have failed? Does it have to file for bankruptcy? If so, Chapter 11 (reorganization and protection from creditors, with the hope of reemerging),

or Chapter 7 (liquidation)? And if Chapter 7, what if the same people re-form into a new organization and seek to commercialize the same technology? These are all differences of degree, not kind. All anyone can do is state the facts and offer an interpretation. Reasonable people can disagree at the margins, and the general acceptance of a given theory will be in part a function of the reasonableness of the definitions offered and the robustness of the findings according to those definitions.

Christensen has published at least a dozen scholarly articles in addition to his doctoral dissertation at Harvard that draw explicitly upon his analysis of the disk drive industry data and his definition of success. I'm aware of no successful challenge to the relevance of that definition or to the robustness of the findings. Lepore makes no argument that \$50 million in revenue in any one year is either too lenient or too exigent.

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Neither does she argue that the categorization of companies as either successes or failures is sensitive to small changes in this definition in ways that alter the general conclusions. The peer review process is far from perfect, but Christensen's findings have passed, repeatedly, its most stringent tests. In other words, Lepore merely asserts that "much" of the theory turns on this definition; she never tells us how much, or why.

Lepore then notes, quite rightly, that the tumult of the 1980s gave way to subsequent decades of relative tranquility in the disk drive

business. The companies in the industry today compete vigorously, but more in the form of a toe-to-toe slugfest with far fewer dramatic reversals of fortune. Lepore wants us to believe that this undermines disruption theory: “Christensen argues that incumbents in the disk-drive industry were regularly destroyed by newcomers. But today, after much consolidation, the divisions that dominate the industry are divisions that led the market in the nineteen-eighties.” The implication seems to be that if disruption ever happens, it must always continue.

Not so. The 1995 “Catching the wave” article invoked precisely the right metaphor. Companies that disrupt their competitors develop new business models in unrelated markets that are built around different technologies—in *The Innovator’s Manifesto*, I called these “enabling technologies.” The disruptors “ride the wave” of improvements in those enabling technologies, and as the performance and cost of their solutions improve, they eventually intersect with the

requirements of customers in the incumbents’ home market. To the extent that the entrant is successful, it has followed a disruptive path to that success.

Once that wave of technological improvement has washed ashore and become the status quo in an industry, all anyone can do is paddle back out to sea and wait for the next wave, reading the wind and the water and jockeying for position with all the other surfers to be

in the best position for the next point break. There is nothing in disruption theory that mandates which industries will or won’t be subject to disruption, how long that disruption will last, or if or when another disruptive wave is on the horizon. Elements of the theory allow us to make informed probabilistic predictions about these (again, see *Manifesto*), but there is nothing in the theory that requires ceaseless, remorseless change.<sup>5</sup>

Nor is permanent success the mark of a successful disruptor. In retail, Lepore says that

Christensen’s claim that Kmart was a successful disruptor is undermined by subsequent poor performance. This seems a stretch: Kmart became a household name as a consequence of its disruptive attack on incumbent department stores. That run of growth and profitability lasted decades, but it did not last forever. But then again, nothing does. To claim that Kmart was not a successful disruptor because it is no longer a disruptor is like claiming Carl Lewis was not a champion sprinter

because he is not now a champion sprinter.

In steel, Lepore suggests that the theory can’t be right because US Steel is the largest steel producer in the United States and so cannot have been disrupted by the likes of Nucor, which got its start in the rebar segment of the steel industry (which has much lower volumes and margins than, say, the sheet steel segment) using mini-mill technology.

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Sometimes the best way to deal with the elusive nature of success and failure is with a comparison. In 1966, US Steel had revenue of \$4.4 billion. Nucor had revenue of \$21 million. Over the next 15 years, US Steel grew to \$13.9 billion, a growth rate that put it in the 42nd percentile for its industry, corrected for size. Nucor had grown to \$545 million, landing it in the 91st percentile for growth, also correcting for size. (Larger companies have to grow more in dollar terms than do smaller companies to achieve similar growth rates. These percentile rankings correct this discrepancy.) Nucor was not only growing relatively faster, it was relatively more profitable, landing in the 95th percentile for profitability compared to US Steel's 67th percentile rank.

Diversification into oil and gas kept corporate revenues buoyant, but US Steel's steel operations had revenue of \$3.7 billion in 1986, less than 40 percent of the 1981 figure, while Nucor had grown by almost 50 percent to \$755 million. Between 1986 and 2012, US Steel grew to \$19.3 billion, Nucor to \$19.4 billion. Over

this 26-year period, Nucor's relative growth and profitability rankings were in the 80th and 85th percentiles, while US Steel's rankings were in the 36th and 27th percentiles, respectively.

In short, Nucor has delivered decades of growth and profitability that have been materially and significantly superior to the rest of the steel industry. In contrast, there have been no new steel manufacturing companies in the United States that had anything like that kind of success with a sustaining attack on the industry's incumbents. I am willing to suggest that Nucor's success is attributable to having followed a disruptive path when entering the steel business.

(Client confidentiality obligations prevent me from commenting in any detail on the excavator case study, but a similar analysis of the performance of the relevant companies through 2010 suggests strongly that here, too, Lepore has exaggerated the success of the incumbent and understated the success of the disruptor.)

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**P**REDICTIVE power is a critically important element of a theory's utility. (Explanatory power is the other.) So, quite rightly, Lepore tackles next whether or not disruption theory can be used to make accurate predictions.

Exhibit A is the poor showing of the Disruptive Growth Fund, which debuted in 2000, within weeks of the beginning of the dot-com meltdown, and closed in 2002. Lepore says that Christensen "launched" and "managed" the fund. Lepore does not explicitly say so, but the implication is clear: If Christensen can't pick stock market winners using disruption theory, then the theory has no predictive power.

As Christensen points out in an interview about the Lepore article, he did not launch or manage the Disruptive Growth Fund.<sup>6</sup> We are not told, and I do not know, what stocks

the fund's managers picked, so we can't say whether they picked companies that disruption theory would have tagged as potentially disruptive. It is entirely possible that whoever was picking the stocks ended up with a basket of high-risk start-ups pursuing sustaining paths. Without knowing the relevant facts, the results of the fund say nothing about the theory and even less about Christensen.

To truly test a theory, its predictions must be falsifiable—that is, subject to being proven wrong. Lepore says disruption fails this test, stating that the theory's central observations are only that "if an established company doesn't disrupt, it will fail, and if it fails it must be because it didn't disrupt." This is a frequently repeated claim, but it is not true by dint of this repetition. After all, evolutionary theory is not circular merely because Herbert

Spenser summarized it with an incorrect but very durable bumper sticker, “Survival of the fittest.”

In fact, the question of falsifiability is one Christensen has responded to directly and forcefully, most notably in a 2006 special issue of the *Journal of Product Innovation Management* devoted to disruption theory: “I have heard many people make the mistake of post hoc definition of disruptiveness, and I correct them whenever I hear it. If Danneels (2004) or Tellis (this issue) have ever read about or have heard me commit this error, I ask them to point out specifically where I have been so sloppy, and I will issue a letter of apology and retraction.”<sup>7</sup>

The core prediction of disruption theory has been boiled down and summarized quite efficiently many times. But these summaries have not precluded widespread confusion. Let me therefore attempt a more elaborate formulation. Disruption theory describes a path that a company can follow in order to enter successfully a market in which it does not now compete. Let’s say, then, that we are considering Alpha Co.’s desire to enter the widget market. Alpha Co. can get into widgets via two paths: sustaining or disruptive. The sustaining path requires making widgets that are better than the widgets provided by the existing widget makers. Following the disruptive path means *avoiding* the widget market at first, and instead achieving viability in a market, say, gadgets, that is relatively unimportant to the widget-making incumbents because gadgets are of relatively little interest to the buyers of widget.

However, the business model Alpha Co. uses, although applied to gadgets, happens to be more efficient than the business model used by widget-making incumbents. If Alpha Co.’s business model is powered by an enabling technology that is improving, it can rely on improvements in the enabling technology, rather than changes to its business model, to develop, eventually, better widgets. Disruption

theory predicts that organizations that follow the disruptive path are more likely to be successful than organizations that follow the sustaining path.

Makers of personal computers followed the disruptive path, starting out in consumer markets that didn’t matter to makers of mini-computers, but then rode the improvements in semiconductors (their enabling technology) to dominance in commercial markets. Internet-based streaming video services start out with short snippets at low resolution and wind up competing with broadcast and cable networks. Discount airlines take root with price-sensitive segments in limited geographic areas by standardizing on one type of plane with limited range, then ride improvements in airframe and engine efficiencies to become nationwide players.

It’s critical to note that disruption’s predictions concern likelihoods of success, and following the disruptive path is no guarantee of success. Companies following a disruptive path have failed. For example, many search engines, such as Webcrawler, Infoseek, Lycos, and AltaVista, proved unable to improve their algorithms and move past banner ads to the targeted advertising that drove Google’s success. And there are successful entrants that followed a sustaining path, like Apple with its iPod and iPhone mobile digital devices: In both cases, Apple took direct aim at the core customers of entrenched incumbents and came up a winner.<sup>8</sup>

Lepore offers her own examples of failed disruptions, but none of them was demonstrably following a disruptive path. She points to Morrison-Knudsen’s move into the construction of commuter and long-distance train cars with MK Transit and MK Rail. In neither case, however, did the company target unattractive segments of these markets, build new business models, or count on the improvement trajectories of enabling technologies. They were sustaining attacks on established markets, and so disruption theory ascribes a low probability

of success for both. That both failed means that Morrison-Knudsen's bad experiences are actually consistent with disruption theory.

The same goes for another of Lepore's alleged counterexamples, Pathfinder, launched by Time, Inc. This website intended to improve the experience of the company's existing readers and the reach of its existing advertisers. That's a sustaining innovation. A disruptive path would have seen the company experiment with new media models that targeted customers the company didn't already have and advertisers it didn't particularly value. Christensen's fundamental point in such cases—captured well in the title of his first book—is that managers of successful incumbent firms face a genuine dilemma: Invest in the current business, or explore a particular type of new approach to their business, one that is potentially disruptive. There are no easy answers, but at least disruption theory identifies the right questions.<sup>9</sup>

Finally, Lepore notes that “when the financial services industry disruptively innovated, it led to a global financial crisis,” referring to the advent of subprime mortgages, collateralized debt obligations, and mortgage-backed securities. Whether it was these innovations or a lack of appropriate regulation that led to subsequent difficulties I will leave for others to decide. In any case, these were not disruptive innovations. Lepore notes that some of these products were sold to a previously untapped customer

base—but not a smaller or otherwise financially less attractive customer base, and not using a new business model, and not propelled forward by an enabling technology. In other words, none of innovations Lepore sees as having caused the Great Recession was, by the lights of the theory, disruptive.

Trading examples of successes and failures like punches in a brawl is a fruitless endeavor, amounting to little more than “disruption is true” versus “no, it isn't.” As Michael Palin put it to John Cleese in the Monty Python skit, that's not an argument, it's a contradiction.

Getting past this requires understanding the

uses and limits of the case study method. Case studies are extraordinarily useful when developing theory and limning a theory's limits. Case studies establish a theory's descriptive validity (there is such a thing as a disruptive path to success) and its explanatory power (here is why it works).<sup>10</sup> Case studies cannot test a theory's predictive power

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when a theory makes probabilistic predictions. That requires a statistically valid test of a theory's accuracy on a population. Complaining that Christensen has not proved the predictive power of disruption based on case studies is to miss this critical distinction between two completely different methods, each attuned to a very different need.

Using a portfolio of new businesses launched by Intel, I conducted a series of

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clinical experiments to compare the accuracy with which business school students and executives predicted which companies would succeed and which would fail when using disruption theory with their accuracy when not using disruption theory. The specifics of the design and the details of the results are reported in *The Innovator's Manifesto*. The bottom-line conclusion is that using disruption theory increases predictive accuracy by up

to 50 percent. In other words, you don't have to be Clayton Christensen to apply disruption theory in ways that get the desired results. Whether or not a business is following a disruptive path can be determined by appropriately trained people independently of eventual success or failure, and those businesses that are not disruptive are systematically more likely to fail than those that are not.<sup>11</sup>

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**G**ENERALIZING disruption theory to new settings, especially education and health care, has been a focus of Christensen's work for years. Three books by Christensen and co-authors have carried the banner in these fields: *Disrupting Class*, *The Innovative University*, and *The Innovator's Prescription*.

Lepore questions the suitability of disruption theory as an approach to improving performance in settings that do not as clearly or cleanly operate according to the rules of competitive commercial markets. This seems a legitimate debate worth having, and not merely as it applies to disruptive innovation. After all, Christensen is not the only one to apply a set of principles developed in the context of competition to new domains: Michael Porter and his co-author, Elizabeth Teisberg, explain how

Porter's theories of corporate success apply to the largest component of the US economy in *Redefining Health Care*.<sup>12</sup>

In criticizing Christensen's application of disruption theory to higher education, however, Lepore once again mischaracterizes the prescriptions of disruption theory: "... establish a team of innovators, set a whiteboard under a blue sky, and never ask them to make a profit." I cannot find anything like this in anything Christensen has ever written, and certainly not in *The Innovative University*. In fact, the opposite is prescribed in *The Innovator's Solution*: not a team of innovators, but people who have had the appropriate experiences; not unfettered creativity, but well-defined constraints to keep the new division focused on the right hard problems; and certainly not

“never make a profit,” but the somewhat counterintuitive goal of reaching sustainable profitability quickly and being patient for growth.<sup>13</sup>

The specific managerial implications of applying disruption theory do not appear to be Lepore's chief concern, however. More important, it seems, is that in many domains the providers of the relevant services have obligations to those they serve that go beyond treating them merely as customers. Churches are not businesses for this reason, and despite the fact that churches must raise funds and pay their bills, most tend not to see them as businesses. In the same category Lepore includes hospitals, schools, museums, and newspapers, implying that the Holy See is of a kind with the Cleveland Clinic, the University of Phoenix, the Museum of Modern Art, and the *New York Times*.

Why stop there? If seeking financial solvency under the constraint of a professional obligation is the criterion, we need to add law practices, engineering partnerships, and accounting firms, with consultancies and any company that employs anyone with an MBA not far behind. Each of these disciplines is a

profession or aspires to the professionalization of its vocation. Anyone acceding to that dramatic a circumscription of the profit motive has a complaint, not with disruption theory, but with free market capitalism.

This is a line of attack endorsed, perhaps surprisingly to some, by the *Economist* in a blog: “Ms Lepore is right that disruptive innovation is much more than a theory of business economics; it carries with it a set of social and political values.”<sup>14</sup> This is true only to the extent that every theory must operate within some paradigm, and disruption's is the paradigm of competitive markets. Both Lepore and the *Economist* characterize those values far too broadly. There is no bias toward the new, no preference for the demise of incumbents or never-ending turmoil. Nor is there a desire for stasis. Indeed, the theory is indifferent to whether disruptive innovations or sustaining ones prevail, and whether these innovations are introduced by entrants or incumbents. All the theory requires is that markets are sufficiently efficient for consumer choice to determine which solutions to their problems are commercially successful.

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**T**RUTH arises, said David Hume, from disagreement among friends. The disagreements among the friends of disruption theory are many and vigorous.

Is the driving force of a disruption the “enabling technology,” or the more general notion of an “expanding core”? Some hold that a variety of industries are on the cusp of disruption, while others see an age-old pattern of fine-grained segmentation and diffusion. Are the counterexamples to disruption, like Apple's successes with the iPhone and iPod, anomalies that can be accounted for by

expanding the theory? Or does progress lie in defining more precisely, and very likely more narrowly, the circumstances in which disruption theory applies?

This ever-widening community of researchers and practitioners see merit in disruption theory, understood as a carefully researched and tested set of ideas. The theory has matured tremendously over the last 20 years, thanks to disagreements among the members of that community who are friends, sometimes of each other, and always of the search for an ever-improving theory of disruptive innovation.

# Endnotes

1. Joseph L. Bower and Clayton M. Christensen, "Disruptive technologies: Catching the wave," *Harvard Business Review*, January-February 1995, pp. 43–53.
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8. iPod and iPhone are trademarks of Apple Inc., registered in the United States and other countries. "Wrong and strong: Disruption theory's newest critic misses the mark . . . with gusto" is an independent publication and has not been authorized, sponsored, or otherwise approved by Apple Inc.
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# Contact

**Michael E. Raynor**

Director, Deloitte Services LP

+1 617 437 2830

[mraynor@deloitte.com](mailto:mraynor@deloitte.com)



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