In the social sector, too much attention is devoted to providing more of the same to narrow populations that are already served. It's time for a fundamentally different approach.

by Clayton M. Christensen, Heiner Baumann, Rudy Ruggles, and Thomas M. Sadtler

# Disruptive Innovation

for Social Change

he United States spends more money per capita on health care than any other nation, and it offers some of the most sophisticated care in the world. Yet it lags behind many less affluent countries on basic health indicators such as infant mortality and life expectancy rates. Similarly, the United States ranks second only to Norway among OECD countries in per-student spending on education, yet it comes in 24th out of 29 on the OECD's Programme for International Student Assessment mathematical literacy test. This pattern of aggressive spending and disappointing returns in the social sector isn't limited to the United States, of course. Throughout the world, affluent nations, institutions, and individuals generously fund social services that fail to fully deliver on their promise.

What accounts for this poor showing? It's not a lack of solutions but rather misdirected investment. Too much of the money available to address social needs is used to maintain the status quo, because it is given to organizations that are



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wedded to their current solutions, delivery models, and recipients. Many provide relatively specific, sometimes sophisticated offerings to a narrow range of people. While they may do a good and important job serving those people, and while their services may steadily improve, these organizations are unlikely ever to reach the far broader populations that are in need—and that would be satisfied by simpler offerings if only they were available.

What's required is expanded support for organizations that are approaching social-sector problems in a fundamentally new way and creating scalable, sustainable, systems-changing solutions. Their method, which we call "catalytic innovation," shares principal features with Clayton Christensen's disruptive-innovation model. Like disruptive innovations, which challenge industry incumbents by offering simpler, good-enough alternatives to an underserved group of customers, catalytic innovations can surpass the status quo by providing good-enough solutions to inadequately addressed social problems. Catalytic innovations are a subset of disruptive innovations, distinguished by their primary focus on social change, often on a national scale.

To understand this argument, it's useful to review the disruptive-innovation model first put forward in Christensen and Joseph L. Bower's HBR article "Disruptive Technologies: Catching the Wave" (January–February 1995). The authors divide innovations into two categories: sustaining and disruptive. Most product and service innovations are sustaining. They provide better quality or additional functionality for an organization's most demanding customers. Some sustaining innovations are incremental improvements; others are breakthrough or leapfrog products or services.

By contrast, disruptive innovations don't, by traditional measures, meet existing customers' needs as well as currently available products or services. They may lack certain features or capabilities of the established goods, for example. However, they are typically simpler, more convenient, and less expensive, so they appeal to new or less-demanding customers. Southwest Airlines' low-cost, nofrills flights were a disruptive service innovation that initially attracted leisure travelers whose alternatives were to pay through the nose or not to fly at all. The company rapidly stole market share from established carriers

while also bringing new customers to air travel. Personal computers were a disruptive product innovation because, while they were less powerful than mainframes, they quickly found a huge unserved market for their affordable, if limited, capabilities.

Disruptive innovations have had a major impact on industry structures, from travel to computer retailing to communications, and have often given rise to social change in the process. But the social changes caused by disruptive innovations are largely unintended; they are simply the by-products of pursuing a business opportunity. With catalytic innovations, however, social change is the primary objective.

#### Thinking Catalytically

he existing players in any sector have resources, processes, partners, and business models designed to support the status quo. This makes it difficult and unappealing for them to challenge the prevailing way of doing things. Organizations are set up to support their existing business models. Because implementing a simpler, less expensive, more accessible product or service could sabotage their current offerings, it's almost impossible for them to disrupt themselves. Therefore, the catalytic innovations that will bring new benefits to the most people are likely to come from outside the ranks of the established players.

It's fairly easy to grasp the disruptive-innovation model when it's applied to commercial products and services. But how, exactly, does the model work in the social sector? Catalytic innovators share five qualities:

- 1. They create systemic social change through scaling and replication.
- 2. They meet a need that is either overserved (because the existing solution is more complex than many people require) or not served at all.
- 3. They offer products and services that are simpler and less costly than existing alternatives and may be perceived as having a lower level of performance, but users consider them to be good enough.
- 4. They generate resources, such as donations, grants, volunteer manpower, or intellectual capital, in ways that are initially unattractive to incumbent competitors.

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5. They are often ignored, disparaged, or even encouraged by existing players for whom the business model is unprofitable or otherwise unattractive and who therefore avoid or retreat from the market segment.

The following examples in health care, education, and economic development show the catalytic innovation strategy in action at both nonprofit and for-profit organizations. People often equate an organization's tax status with its ability to generate positive social change. But, as we'll show, organizations can create catalytic innovations regardless of their ownership structure.

#### **Investing in Health Care**

n health care, investments in sustaining innovations enable organizations to treat their challenging patients with the most advanced technologies and therapies. An investment in catalytic innovation, meanwhile, yields simpler products and services that are affordable to a broader population.

Cutting-edge care. Several years ago, a major teaching hospital in Boston received a large donation to further its mission to provide the highest-quality health care, serve regional patients, and pioneer practices for global dissemination. Stakeholders submitted diverse proposals for the use of the funds, and two of those ideas made it through the vetting process to reach the board for final consideration. One proposal recommended that the hospital move beyond its current tertiary care status to become a "quaternary" care provider, combining its tertiary care and research capabilities to extend the boundaries of its clinical excellence. The other proposal recommended funding a nursing fellowship and broadening treatment responsibilities for the best nurses.

The quaternary care proposal promised service innovation that would advance the elite hospital's evolution by offering enhanced treatment capabilities for patients with complicated problems. The nursing fellowship would also promote service innovation, but in a different way. It would train nurses to begin offering care that doctors formerly had provided, but at a lower cost. As disruptive-innovation theory would predict, the hospital board decided not to disturb the status quo. It turned down the proposal to train nurses in providing more so-

phisticated care and used the donation to fuel the hospital's current model: pushing the envelope on providing cutting-edge care to a relatively small population of the sickest patients. It chose sustaining over disruptive innovation.

Walk-in clinics. By contrast, Minneapolis-based Minute-Clinic is a catalytic innovator. The for-profit company's 87 clinics are located in ten states in CVS stores and other retail locations and provide fast, affordable walk-in diagnosis and treatment for common health problems, as well as vaccinations. MinuteClinic employs nurse practitioners armed with software-based protocols and applies strict rules that help ensure consistent service. If a patient has a complaint that's not on the list of health issues the clinic treats or has symptoms that indicate a serious problem, he or she is referred to a doctor or an emergency room. Because MinuteClinics are less expensive for many uninsured people than a visit to a doctor's office and are often more convenient for the insured, the model has the potential to bring basic health care to many whose access is otherwise limited.

MinuteClinics may offer "lesser" health services than a doctor's office would, but this reduced scope amounts to a good-enough service that's attractive to a large, underserved population. (In fact, MinuteClinic's surveys of more than 350,000 patients indicated a 99% satisfaction level.) MinuteClinics also provide services that many incumbent health providers resist offering because the services generate limited profits and result in little professional satisfaction. As a result, the growth of MinuteClinic (which was recently acquired by CVS) and other health care—related catalytic innovators, such as RediClinics, Take Care Health Systems, and Wal-Mart's in-store clinics, will come at the expense of the full-service organizations that allow them to thrive.

Affordable insurance. The nonprofit labor organization Freelancers Union is another catalytic innovator in the health care field, providing low-cost health insurance and other services to independently employed contractors, consultants, part-timers, temps, and other workers in the New York area who wouldn't otherwise be able to afford insurance. By handling individual policyholders as if they belonged to a group working for a large employer, Freelancers Union can offer comprehensive health

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### The community college model is a catalytic innovation that is dramatically changing the shape of higher education.

insurance at prices that are 30% to 40% lower than those charged by incumbent insurers for individual plans that provide comparable coverage. Freelancers Union's actuarial analysis of claims has shown that the workers it covers are not a high-risk demographic, as many incumbents have assumed. With the growing scale of its coverage and the detail of its analysis, Freelancers Union has gained bargaining power with its insurance carrier, allowing the nonprofit to continue to lower its insurance premiums.

Because incumbent insurance companies have aligned their processes, cost structures, and marketing to focus on corporate clients, they have little incentive to try to compete for Freelancers Union's niche business. The catalytic-innovation model, in which the organization acts as a marketer and broker while partnering with an established insurance carrier, is replicable, and Freelancers Union is now expanding to other states.

#### **Investing in Education**

ust as catalytic innovations in health care expand the reach of good-enough care, catalytic innovations in secondary schools can make a broader range of good, affordable courses available to people who otherwise would have limited or no access to certain types of course content or degree opportunities.

Online classes. Online learning is an example of one such innovation. Because of tight budgets, many public high schools have ceased to offer classes that cater to small groups of students-classes in certain languages, for instance, and advanced placement courses that count for college credit. Other small or poorer schools have never had the budgets to offer these types of courses. Forprofit Apex Learning and nonprofits Virtual High School and Florida Virtual School, among others, have provided these specialized classes to thousands of students through their online learning curricula. They allow school systems to offer good-enough AP and other courses at a fraction of what a live course would cost the school to provide and give students options that would otherwise be unavailable to them. According to the U.S. Department of Education, as of 2005, there were 40,000 to 50,000 secondary school students in 37 states participating in online

courses, through approximately 2,400 online charter schools and state and district virtual schools.

Student attrition is higher in online courses than in live ones, both because participation can be technically challenging and because sticking with an online course requires strong self-motivation. However, in the absence of alternatives, online courses remain an adequate option for an underserved population. What's more, they're based on a profitable, disruptive business model—affordable, widely accessible learning—that the incumbent schools are not structured to pursue.

**Community colleges.** Though it may at first seem counterintuitive, the community college model is a catalytic innovation – one that is dramatically changing the shape of higher education in the United States by expanding access to and redefining the goals for advanced study.

Community colleges offer a lower-cost alternative to four-year universities and measure quality not by the selectiveness of admissions or the earning power of graduates but rather by factors such as job placement rates and the convenience of access to classes. This has made community colleges an acceptable and even desirable choice for students' first two years. In fact, these schools now enroll some 44% of all undergraduates in the United States. They provide a good-enough alternative for prospective undergraduates who regard the traditional four-year incumbents as overpriced for their initial needs, and they provide a viable option for the unserved: aspiring undergraduates for whom traditional colleges, for a variety of reasons, are out of reach.

Some state colleges and universities have helped create this shift by explicitly pointing prospective students toward community colleges for their first two years. Having freshmen and sophomores attend community colleges eases housing shortages at four-year schools and allows their faculties to teach fewer introductory courses, freeing instructors up to teach more intellectually challenging upper-level courses and seminars. True to the model of disruption, many community colleges are offering upper-division courses as well but without the significant cost burdens of research-oriented faculty. Community colleges serve as feeder schools for the four-year institutions, which in turn have made transfer arrangements more straightforward.

#### **Investing in Economic Development**

istorically, organizations such as the World Bank and the International Monetary Fund have promoted economic advancement by applying resources at a scale and scope unmatchable by developing economies. However, during the past several decades, microfinance organizations have taken a different approach, making small loans available to latent entrepreneurs who otherwise would have little or no access to capital.

**Microlending.** Conventional banks are typically unwilling to lend to people without assets, forcing those customers to seek informal loans, often at interest rates of 300% to 3,000% (if they can be obtained at all). Microfinance organizations have stepped in by offering these clients small loans at relatively low interest rates and requiring little or no collateral. In many countries, microlenders (combined) have had a far greater impact than the World Bank, IMF, and conventional banks in raising significant segments of the population from poverty.

One of the best-known microfinance organizations is Grameen Bank. At the end of 2005, it had 5.6 million borrowers in nearly 60,000 villages throughout Bangla-

desh. Since its inception in 1976, it has lent more than \$5.2 billion with a recovery rate of more than 98%. Owned 93% by its borrowers, 5% by the Bangladeshi government, and 2% by other private Bangladeshi banks, it has been profitable in every year but three since it was founded. Profits from the bank are used to increase the loan fund. In 2005, the entire \$15.21 million profit was transferred to a disaster relief fund, called the Rehabilitation Fund. Accion International, another profitable microfinance organization, reports that between 1996 and 2005, its affiliated programs issued \$9.4 billion in loans in varying amounts to 3.97 million people. More than 97% of those loans have been paid back. According to the Microcredit Summit Campaign, which collects outreach information from nearly 3,000 microfinance organizations, about 80 million people worldwide are receiving credit through this approach.

Rural clinics. While microfinance itself is a catalytic innovation, it is uniquely powerful in its ability to enable other catalytic innovations to flourish as well. Consider the HealthStore Foundation, which has established what might be thought of as the MinuteClinics of Kenya. The Kenyan health care system is hierarchical and has a complex administrative structure and an urban bias. Roughly 80% of Kenya's doctors and den-

tists live in Nairobi and other urban areas, while 70% of the population lives in rural areas. A 1998 study indicated that more than half the population did not visit government-run health facilities because those institutions lacked the needed drugs, were too far away, or were too expensive.

With the help of microloans, the HealthStore Foundation has begun to address these problems by training local residents to provide basic health care and helping them buy and operate their own clinics. These residents turned clinic owners often have experience as nurses or other types of health practitioners, but they lack the formal education and licensing of physicians. The clinics offer essential drugs, health products, and basic health care and health education at affordable prices, and they provide the owners with enough income to ensure the sustainability of the model. Strict standards and regular inspections by the HealthStore Foundation guarantee that the clinics offer uniform quality and prices. The combined buying power of the network is used to obtain medicines at the lowest possible rate, which helps drive the access cost toward a goal of 50 cents per person per visit, compared with roughly \$3 per outpatient visit in government-run hospitals. With their higher capital and personnel costs,



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government hospitals would have trouble competing on price. As with MinuteClinics in the United States, the Kenyan clinics' growth will probably come at the expense of the full-service incumbent organizations that currently ignore, disparage, or encourage them.

Capital equipment. KickStart is another business that creates catalytic innovations in Africa. The nonprofit develops and sells low-cost capital equipment to poor entrepreneurs in Kenya, Tanzania, and Mali; develops related supply chains; creates initial markets for the equipment; and adapts the equipment according to market feedback. One of its innovations is the MoneyMaker foot-operated irrigation pump, which dramatically increases the pro-

#### **Identifying Catalytic Innovations**

any mainstream organizations could use additional resources to grow, refine, and revitalize their current valuable offerings, and investing in sustaining innovations can certainly advance social goals. However, when the objective is to get a system unstuck and to create new change models, it is time to go in search of catalytic innovations. While there are many guides to smart investing and philanthropy that focus on identifying traditional sustaining innovations to support, investors seeking catalytic innovations have few sources to rely on. Here are some guidelines they can use.

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ductivity of farmland. The pumps cost between \$38 and \$90 and can increase an average farmer's annual income tenfold, from about \$100 to more than \$1,000, allowing families to send their children to school and make other investments in their futures. The farmer's initial expense is sometimes advanced by a microlender and can usually be paid back in three to six months.

Like other catalytic innovations, KickStart's products may seem to perform less well than competing goods. Compared with motorized pumps, for example, KickStart's pumps are labor-intensive and low capacity. But motorized pumps are more expensive and require electricity or fuel, and labor is a plentiful asset for Kenyan farmers. KickStart provides a good-enough solution that has transformed the lives of thousands of farmers. Since 1993, KickStart has helped generate 41,000 profitable new businesses. Creating new businesses at the rate of 800 per month, KickStart's clients today generate \$47 million in annual profits and wages, which is equivalent to more than 0.5% of Kenya's GDP and 0.2% of Tanzania's GDP.

The success of the HealthStore Foundation, KickStart, and other such organizations depends on the availability of microlenders. In turn, microlending helps sustain borrowers who are paying back loans and creates an economic environment that attracts other lenders looking to start new businesses. Economic development arises as a result of these organizations' catalytic innovation business models, not solely because of their resources.

Look for signs of disruption in processes. Once an investor or organization has chosen a particular social challenge to address, the first step is to look for preexisting catalytic innovators. Because of their nontraditional models and technologies, these organizations may not show up in mainstream news articles, watch lists, or trade magazines. Instead, it is often easiest to detect their presence by noting the patterns of catalytic innovation activity that arise in the sector overall. Dynamics to watch for include the following:

- A relatively new entrant is providing a lower-cost, lessfunctional alternative to a customer segment that is overserved or not served at all by the dominant provider.
- The dominant provider is moving away from the new entrant's offerings and toward a more profitable segment of the market.
- The new entrant is continuing to improve its offering, expanding its market reach as the dominant player retreats, while others copying its model are beginning to emerge.

These sorts of ripples occurred after MinuteClinic's appearance in 2000 (as QuickMedx) and rapid expansion in the following years. Although MinuteClinic's outlets were initially located only in the Minneapolis–St. Paul area, the social and economic forces that gave rise to it were not location specific. The environmental factors that produced it in Minneapolis–St. Paul created sectorwide opportunities for inexpensive, good-enough care.

Not all sectors are ripe for the rapid growth of catalytic innovations. In the federal government, the judicial system, child welfare services, and other arenas that are heavily regulated or are controlled by politics and other forces outside the market, the innovation process may be slowed down. Still, we have yet to find a social sector that is impervious to disruption by catalytic innovation.

Identify specific catalytic innovations. When sector dynamics indicate that some sort of innovation is starting to come about, donors or social investors should evaluate it against the five qualities (is the innovation designed to create systemic social change, does it meet an overserved or unserved need, and so on) to determine whether the development is in fact a catalytic innovation.

At the identification stage, note that the innovations, not the organizations, are being considered. In the case of MinuteClinic, for example, the innovation is low-cost, walk-in clinics in high-traffic areas such as drug stores and shopping malls and not the MinuteClinic brand itself. It is easy to confuse the two, but a search for catalytic innovations needs to focus on the solution first and then look at how it is, or could be, implemented.

### The Five Qualities of Catalytic Innovators

- They create systemic social change through scaling and replication.
- They meet a need that is either overserved (because the existing solution is more complex than many people require) or not served at all.
- They offer products and services that are simpler and less costly than existing alternatives and may be perceived as having a lower level of performance, but users consider them to be good enough.
- They generate resources, such as donations, grants, volunteer manpower, or intellectual capital, in ways that are initially unattractive to incumbent competitors.
- They are often ignored, disparaged, or even encouraged by existing players for whom the business model is unprofitable or otherwise unattractive and who therefore avoid or retreat from the market segment.

Assess the business models. Just because an organization has come up with a good idea for systemic social change doesn't mean that it will succeed in implementing that change. At this third stage in the evaluation of a potential catalytic innovation, assess whether the group's business model can allow it not only to effectively introduce the innovation but also to scale it up and sustain it. Organizations that have aligned their resources, processes, and values according to the five catalytic-innovation criteria to support their innovations are most likely to succeed. That means investors or donors should look for organizations whose work in one location is transferable to other locations and that have produced the same results elsewhere, for example. It also means investors should seek candidates that turn down funders that would require them to alter their models in ways that are incompatible with catalytic-innovation principles.

Keep in mind that tax classification – for profit versus nonprofit – is not a useful criterion for identifying catalytic innovators. While the business models for the two types may differ, neither has an automatic advantage in addressing social challenges. EBay founder Pierre Omidyar recognized this fact when he and his wife, Pam, restructured their grant-making organization, the Omidyar Foundation, as the Omidyar Network so that it could make gifts in support of both for-profit and nonprofit organizations that focus on social change.

#### **Catalyzing Business Models**

he screening approach described here can help investors identify groups that have a good chance of creating scalable, sustainable innovations in social change. Using the method won't always be straightforward. Most reporting and marketing materials and funding requests have been developed with specific programs in mind, since that is usually how donors and philanthropic investors want them presented. It is much easier for donors and investors to find requests for resources and process assistance than to find organizations – especially nonprofits – that tout their business models. It is also difficult to compare strengths and weaknesses across many different types of organizations and to identify those that are most likely to be effective catalysts.

If social investors are frustrated with current solutions, they should seek out and support catalytic innovations. Not only will this have an immediate social impact, but it will also help establish the model and inspire more social entrepreneurs to think catalytically.

Reprint R0612E; HBR OnPoint 1683 To order, see page 165.

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