Sooner or later, your company will probably need to transform itself in response to market shifts, groundbreaking technologies, or disruptive start-ups. Some strategists suggest doing this quickly and aggressively, by making a clean break from the past and turning your firm into something entirely new. In our experience, though, organizations built for legacy markets rarely pull this off. It can take years for an innovative initiative to become large enough to replace the revenue an incumbent has lost to disruption. And if your company completely abandons its old model, it throws away any advantage it still has.

We propose an approach that’s both more practical to implement and more sustainable. It rests on two insights:

First, major transformations need to be two different efforts happening in parallel. “Transformation A” should reposition the core business, adapting its current business model to the altered marketplace. “Transformation B” should create a separate, disruptive business to develop the innovations that will become the source of future growth.

Second, the key to making both transformations work is to establish a new organizational process we call a “capabilities exchange,” through which the parallel efforts can share select resources without changing the mission or operations of either.

Dividing the effort in two allows leaders to develop a new strategy for the core that doesn’t need to make up for all the business lost to disruption. It also gives the innovative new operation the time it needs to grow. What one transformation effort could rarely accomplish alone, two together have a better chance of achieving.

IBM and Apple both took this dual-transformation approach. In the mid-1990s, IBM reconceived its mainframe business, shifting from proprietary systems to servers running software based on open standards. At the same time, it built a separate Global Services organization that became the source of its future growth. In the late 1990s, Apple repositioned its struggling PC business, trimming offerings and focusing on design. Shortly afterward, it launched the iPod and opened the iTunes store, which led to phenomenal growth.
More recently, we’ve seen the dual-track process unfolding at Barnes & Noble as the retailer reacted to the severe disruption of e-books, and at Xerox in response to the slow erosion of its core copier business. We will touch on the lessons Xerox and B&N have learned as we describe how the process works. But we’ll focus primarily on the case in which one of our authors (Clark Gilbert) developed and tested our approach: the Deseret News, which embarked on a dual transformation in response to the upheaval caused by the internet.

**Xerox revamps copiers and launches services**

**DISRUPTION:** In the 1990s competition from Asia steadily eroded the margins and market share of Xerox’s more-complicated and expensive copiers and printers. By 2000 net losses approached $273 million on $19 billion in revenues

**REPOSITIONED CORE:** A line of copiers that are simpler, more cost-effective to produce, more technically advanced, and less expensive to operate.

**NEW MODEL:** A Xerox Global Services unit that took over document management and other processes for large organisations, an effort accelerated by the $5.5 billion buyout of ACS in 2009.

**SHARED RESOURCES:**

R & D, branding and marketing.

**RESULTS SO FAR:**

By the second quarter of 2012, services accounted for 51% of the company’s business. Total corporate revenues reached $23 billion and net income neared $1.3 billion in 2011.

**A Seismic Disruption**

Founded in 1850 by Mormon pioneers, the Salt Lake City–based Deseret News thrived for 150 years under the traditional newspaper model: For a monthly fee, subscribers received on their doorsteps a daily paper filled with articles on a wide range of subjects—local and national news, arts, sports, entertainment, and more. Local advertisers paid to reach this audience through display ads, classifieds, and separate coupon inserts.

Incumbents most commonly experience disruption as a drop in revenue. At the Deseret News that drop began gradually and then became swift and deep. By 2008 internet upstarts were assaulting every part of its revenue base. Craigslist, Monster.com, and AutoTrader.com siphoned off classified revenues. Google’s search-term advertising competed for display-ad dollars. Free news websites like the Huffington Post, smart-phones, and social media sites
diverted readers’ time and attention, drying up subscription dollars. Since advertising prices are pegged to circulation, declining readership hit all revenue streams at once. From 2008 to 2010, the Deseret News lost nearly 30% of its print display-ad revenues and an eye-popping 70% of print classified revenues.

The same forces were at work throughout the industry, as more than a dozen big-city newspapers closed their doors. The Rocky Mountain News, founded just nine years after the Deseret News in Denver, was shuttered by its parent, E.W. Scripps, in 2009. That was the year that Gilbert, a former Harvard Business School professor who had done research on market disruptions, came to the Deseret organization.

Dire as the situation was, it wasn’t hopeless. An assault on a business model doesn’t mean it’s entirely worthless. If the existing model could be adjusted to become self-sustaining, while innovative ways could be found to exploit the opportunities in the new digital landscape, the Deseret News could get back on course.

That’s how the members of the company’s leadership team saw it when they launched two distinct efforts. On the first floor of the Salt Lake City headquarters, they set out to re-conceive the print operation. On the fifth floor they set up a new organization, Deseret Digital Media, to take over the company’s websites and focus exclusively on web publishing.

**Transformation A: Repositioning the Legacy Business**

The goal of transformation A is to find the strongest competitive advantage your current model can sustain in the disrupted marketplace. Too often companies take a narrow view of the potential left in a business. They focus only on preserving their margins—mainly by reducing costs. That’s what Borders tried to do in response to Amazon, by closing store after store, vainly hoping to hold on to its profits by shrinking.

While costs will almost certainly have to be cut, incumbents need to take a more expansive look at their business. That requires asking foundational strategic questions: What can we still do better than both our traditional rivals and the upstarts? What must we give up? Why do our customers come to us? What is the real need that connects them to our brand?

At Barnes & Noble, finding a sustainable core meant exiting the small-store market and focusing on the profitable niche of college bookstores. More fundamentally, it meant reconsidering how to connect with the core needs of the chain’s most viable customers, such as moms with strollers. In practice that translated into redefining the concept of the core Barnes & Noble bookstore from a low-margin big-box retailer to an enriching environment where people could spend time with children and buy kids’ books, gift books, and other gift items (which all could be sold at far higher margins). At Xerox it meant refurbishing 95% of its product line by cost-effectively making
more technically advanced copiers that were easier to use, better integrated with the internet, and less expensive to run.

**Barnes & Noble sells books and reading devices**

**DISRUPTION:** As Amazon’s online sales ate into bookstore profits, the Kindle burst onto the scene in 2007. In three and a half years, e-book sales surpassed bound-book sales on Amazon.com.

**REPOSITIONED CORE:** A chain of retail outlets that are designed to be enriching places to shop for gifts and spend time with children and that focus less on lower-margin high-volume bookselling and more on higher-margin children’s books, coffee-table books, and gifts.

**NEW MODEL:** The Nook e-reader business, which leapfrogged Amazon’s Kindle technology and used the chain’s brick-and-mortar stores to give customers physical access to the product in a way that Amazon couldn’t match.

**SHARED RESOURCES:**

Branding, publisher relationships, customer intelligence, physical merchandising space.

**RESULTS SO FAR:**

B&N’s $7 billion in 2012 revenues came mainly from its profitable chain of 700 retail bookstores. The Nook captured 27% of the e-reader market in two years, growing revenues from $105 million to $933 million. While the Nook division remains unprofitable, it recently received a $300 million equity investment from Microsoft.

For the Deseret News the key was to focus on its brand—its reputation for covering issues related to family, faith, education, care for the poor, financial responsibility, and the media’s influence on values. Those six subjects had allowed the paper to distinguish itself from its local rivals. They were also resonating with visitors to its website—and not just with people in Salt Lake but with like-minded readers from all across the country.

So, like the New York Times, the Deseret News positioned its print operation to serve a national audience. In addition to continuing its local daily paper, it launched a weekly print publication mailed to readers throughout the United States who were interested in issues of faith and family. The idea was to compensate for the decreasing revenue from local advertisers with new revenues from a smaller but more lucrative set of national clients that wanted to reach the larger audience of highly educated, high-income families the paper’s brand could attract. In this way, the thinking went, the paper could make the most use of the greatest part of its current operations—its sales force, its print journalists, and its printing infrastructure.
This was not a silver bullet. Costs still had to be cut if the daily paper was to survive. But which costs? And by how much? To avoid destructive across-the-board reductions, the management team instituted something it calls “story cost accounting.” It calculated the cost of producing each story by multiplying the time it took the author to write the piece by his or her hourly compensation, including benefits. With this measure, everyone saw how expensive it was to produce commodity news that competitors could do just as well. Guided by the numbers, the leadership cut the overall costs of the print business by 42%.

We in no way want to minimize the pain involved in reducing an operation’s costs by 42%. To remain viable, the Deseret News laid off 57 full-time and 28 part-time staffers in August 2010. But as fewer resources were devoted to sports and routine news, more were invested to produce in-depth and investigative journalism in the six areas of editorial emphasis. The cost per story in those areas roughly doubled.

Targeted cost cuts allow the legacy organization to find equilibrium in the disrupted marketplace. At Xerox, senior vice president Ursula Burns saved billions by winning concessions from unions, shutting outmoded factories, and outsourcing thousands of jobs to the contract manufacturer Flextronics. In the end the company’s 91,000-person workforce was cut by more than 40%. But what in 2000 had been a $19 billion business with net losses of $273 million became a stable, profitable $15 billion business four years later.

Barnes & Noble closed all 798 B. Dalton locations and its underperforming megastores (including its flagship store in New York’s Lincoln Centre). It also aggressively expanded into the textbook segment, acquiring a leading U.S. contract operator of college bookstores. And by focusing on higher-margin gifts, gift books, children’s books, and textbooks, B&N found a way to make the brick-and-mortar operation profitable on its own even as its rival Borders succumbed to bankruptcy and liquidation.

With a chain of close to 700 retail stores operating in the black, B&N's repositioned core may endure for years to come. The Deseret News may also continue its print operation long into the future. By 2012 the rollout of its national weekly publication had doubled the company’s total print circulation—from approximately 75,000 to more than 150,000—and generated enough advertising revenue to turn the Deseret News into one of the nation’s fastest-growing print newspapers.

**Transformation B: Building the Future**

To realize their fullest growth potential, incumbents need to embrace the possibilities of the new marketplace as energetically as the disrupters do. That’s the purpose of transformation B.
Much has been written in these pages and elsewhere about how to foster this kind of entrepreneurial innovation within big companies. (See, for instance, the HBR articles “Reinventing Your Business Model,” December 2008, and “Discovery-Driven Planning,” July 1995.) By now it’s accepted wisdom that companies should address the changing market the way start-ups do—asking not “What do we do that customers still want?” (that’s the focus of transformation A) but “What unmet needs do customers have in today’s environment?” They must conceive a business model that can fulfill those needs profitably and carefully implement and evolve it, testing essential assumptions first and quickly adjusting the model as they learn.

Transformation B, therefore, is the construction of a separate business with its own profit formula, dedicated staff, distinct processes, and singular culture. The idea is to exploit the disruption without being encumbered by the legacy margins, revenue requirements, or practices of the core business.

That’s what Xerox did in 2001 by setting up Xerox Global Services (XGS), which took over document management and other processes for corporations, state governments, and other large organizations. And it’s what Barnes & Noble did in 2009, when it recruited e-commerce executive William Lynch to head Barnes & Noble.com and to launch an initiative far from its New York City headquarters, in a former Palo Alto bread bakery, where a new team conceived the Nook.

And even as the repositioned Deseret News was refocusing its print content and lining up national advertisers on the first floor, up on the fifth floor publisher Christopher M. Lee was building Deseret Digital, which exploited online opportunities beyond merely repurposing the print newspaper. While the Deseret News moved toward a lower-volume, higher-margin model, Deseret Digital went in the opposite direction, establishing a lower-cost operation that could take advantage of the higher-volume but lower-margin opportunities the internet made possible.

Like the Huffington Post, TheAtlantic.com, and Forbes.com, Deseret Digital mixed a small number of staff-reported pieces with crowd-sourced material from dozens of outside contributors, producing content at a small fraction of what it cost on the print side. The digital offerings built on the company’s core brand, focusing on the same six key subjects but often in ways that had no analogue in print.

Online-only content, like curated selections of stories from other media, blogs, contributor networks, and interactive forums, became critical to driving overall site traffic. So did original new products. As an alternative to traditional film review and rating systems, for instance, the digital editors created a family media guide called Ok.com, to which readers contribute movie appraisals. Through syndication, this unique content has brought in a new revenue stream.
Additional revenues have come from auctions, online deals similar to Groupon’s, demographic and behaviorally targeted advertising, search engine marketing, and business directory listings.

The Desert News stays in print and goes digital

**DISRUPTION:** From 2008 to 2010, the Desert News lost nearly 30% of its display-ad and 70% of its classified revenues, as internet start-ups assaulted its advertising and subscriber bases.

**REPOSITIONED CORE:** A leaner local print newspaper providing in-depth coverage of issues related to families and faith, supplemented with a similarly focused weekly aimed at a national audience, which can sell higher-margin national ads.

**NEW MODEL:** Deseret Digital, a collection of websites that capture the lower-margin, higher-volume opportunities that the greater reach of the internet makes possible.

**SHARED RESOURCES:**
The brand, editorial content, marketing resources and demographic and behavioural data about subscribers and site visitors.

**RESULTS SO FAR:**
From 2008 to 2012, combined daily. Weekly print circulation doubled, generating enough and revenue to turn the Deseret News into one of the nation’s fastest-growing print newspapers. Deseret Digital now represents about a quarter of total corporate revenues.

A non-traditional sales channel was created to capture and manage those revenue streams, which required a telesales staff and people who could build a network that allowed advertisers to place ads directly on the site. Operations were organized to address the fact that most online revenues come in post-publication, as advertisers pay per click or per customer lead, unlike what happens on the print side, where subscribers pay in advance.

It will take time, of course, for all these new revenue streams to reach their potential. In the short term, start-ups rarely draw in revenues on anything like the scale of the core business. Just like IBM, Xerox needed at least a decade to build its B organization into the corporation’s principal business. But by the second quarter of 2012, 51% of its revenues came from XGS. In its most recent fiscal year, total corporate revenues reached $23 billion and net income neared $1.3 billion.

At B&N, Lynch’s operation surprised the book world by beating Amazon to the punch with a colour e-reader and capturing 27% of the e-reader market in only two years. But while the Nook division has now posted two years of strong revenue increases, growing from $105 million in
fiscal 2010 to $933 million in fiscal 2012, the bulk of B&N’s $7 billion in revenues still comes from its retail business. Development costs have made profitability for the Nook start-up elusive, and the unit has been losing millions of dollars a quarter. In early 2012, Microsoft stepped in with a $300 million cash infusion in return for a 17.6% stake in the business. Together with the sustainable retail operation, it may buy B&N the time to see its transformation efforts play out. In the same three years it took the Deseret News to become one of the fastest-growing print publications in the country, Deseret Digital roughly tripled its small starting revenue base as a collection of websites. Revenues from the disruptive business are now about a quarter of those of the legacy media division (which also includes radio and television stations owned by the parent company).

**Generating Full Value: The Capabilities Exchange**

Launching a successful start-up inside a threatened legacy business takes creativity and grit. But scaling up the new business to become the company’s growth engine requires something more—a structure that allows the two organizations to live together and share their strengths. That’s the role of the capabilities exchange, which coordinates the two transformation efforts so that each gets what it needs and is protected from interference by the other.

Setting up this exchange is a five-step process. Let’s look at each step in turn.

1. **Establish leadership.** This is the simplest step but also the one most open to abuse. Many senior executives may volunteer to do this assignment on a part-time basis: the CFO, the CTO, the CMO, and so on. Don’t let them. Since the capabilities exchange allocates resources at the highest organizational level, it requires authority from the highest level. That means it should be led by just a few top people—typically, the CEO, the leader of the core transformation, and the leader of the disruptive business.

   Gilbert and Lee managed the exchange at the Deseret News. And even in a company as large as Xerox, the exchange was overseen only by its CEO—first Anne Mulcahy and then her successor, Ursula Burns—and the head of XGS, Jim Joyce (who was succeeded by Lynn Blodgett). At Barnes & Noble it was managed by chairman Leonard Riggio, who oversaw the core retail transformation, and William Lynch, the head of the e-reader development effort (who was later promoted to CEO).

2. **Identify the resources the two organizations can or need to share.** This generally begins by determining which capabilities the B organization can borrow from the core to gain a competitive advantage over independent start-ups. Branding is the most typical shared resource. Marketing, customer data, and design are often shared, too.
At Xerox the most potent shared advantage turned out to be research and development. Xerox researchers, for instance, applied advanced analytics software to manage the E-ZPass toll collection system for New York and New Jersey. The company’s storied capabilities in R&D were instrumental in convincing potential clients like P&G and Dow Chemical that Xerox could bring cutting-edge technologies to the services side, prompting them to sign on for long-term engagements.

Barnes & Noble, as anyone who has walked into one of its outlets knows, now devotes floor space to the Nook, turning the seeming liability of bricks and mortar into an advantage. Before they buy an e-reader, people like to hold the device, try it out, ask questions, and know where they can get tech support. Using store space to establish a presence in e-books was something that Amazon couldn’t do, and it helped B&N grab that 27% of the e-reader market so quickly.

And the Deseret News and Deseret Digital share a brand, editorial content, marketing resources, and data about customers and their reading behaviour.

3. Create exchange teams. In many traditional synergy efforts, everyone is expected to think about ways resources might be shared. But in a capabilities exchange, that responsibility is carefully confined to a series of teams. The senior leaders create those teams by assigning to a small number of people from both transformation efforts the responsibility for allocating each resource.

The Deseret team in charge of shared content, for example, consists of the print features editor, the director of digital content sourcing, and the search engine optimization manager from Deseret Digital. Together they’re responsible for pulling resources in either direction. For example, they manage the process by which the print operation uses stories from the digital contributor network. And when Deseret Digital was setting up Ok.com, the shared-content team helped it draw insights about the target family audience from people in both print and digital.

Keeping each team focused on one resource allows more flexibility. Groups can form or dissolve as needed with minimal impact on the regular operations. Keeping the lines of authority short—from the few people on the teams to the few people at the top—is the key to ensuring that resources really go where they’re needed.

4. Protect boundaries. For dual transformation to work, each organization must operate as if the future of the company depended on it alone. The Deseret News has to be led by a print executive who knows in his bones that print is here to stay. Deseret Digital needs a leader who believes that print is dead and that digital is the only future.
That leaves the responsibility for refereeing between the two sides squarely at the top. The first imperative, we’ve found, is to stop legacy employees from trying to meddle with the disruptive new business. At Deseret News Publishing this is referred to as “stomping on the camel’s nose.” (The expression comes from the proverb “If the camel gets his nose in the tent, his body will soon follow.”)

Interference from the core was a real danger at Xerox when Mulcahy authorized the company to invest $100 million to launch the disruptive division at the same time that she had Burns relentlessly cutting costs out of the core. The core’s salespeople were openly hostile to the very idea of XGS. They treated its first victory, a $67 million contract from Baxter Healthcare, as a fluke even though a typical copier sale brings in only about $1 million in annual revenues.

So for Mulcahy and Burns, policing boundaries meant coming down in favour of the services sales force whenever there was a squabble over who owned a customer. “I had to make calls on who covered what account,” says Burns. “For Fortune 500 clients, most of the engagement is a services discussion, not ‘Will you buy a colour printer from me?’”

But it’s also important to avoid bleeding the core to prop up the new venture. To prevent that, Deseret Digital pays a licensing fee for the content it borrows from the print publication. Accounting for each side is kept strictly separate—the digital side gets to keep the money it makes from the borrowed content, but it has to pay for what it gets from the other side.

5. Scale up and promote the new business. In the end, though, top executives should not treat the two organizations equally. Ideally, the repositioned A organization will remain (or become) profitably self-sufficient. But the disruptive business is the source of future growth. Accordingly, if all goes well, the B organization should receive an increasing share of corporate resources and executive attention.

Hard as it is to pull off this kind of transformation, it can be even harder to get external stakeholders to buy into it. So top management must put the new business centre stage when talking to the outside world about the company’s vision and prospects. Otherwise, markets and customers will not see the organization’s evolution.

Today the Deseret News is in a stronger position than it was before it was disrupted. Still, a deep commitment to digital publishing is the only viable long-term position for the company. Currently about 150,000 people subscribe to the print products, but nearly 3 million visit Deseretnews.com each month. Instead of remaining a local newspaper, Deseret is turning itself into a national resource for its target audience. That’s its future, and that must be the company’s dominant story.
Xerox has slowly transformed itself from a product maker to a services company, now that XGS accounts for a majority of corporate revenues. The company tells that story through its “Ready for Real Business” campaign, which features testimonials from services clients like Michelin and Virgin Atlantic Airways. At Barnes & Noble the profitable, repositioned core is providing the lion’s share of revenues for now, but the company’s future awaits in the dynamic e-book marketplace. That’s why CEO Lynch calls B&N a technology company, not a bookseller.

Finding firms in the grip of disruption is becoming easier and easier. Our own research tells us that corporate life spans are shrinking: In 1958 the average tenure of a company on the S&P 500 was 61 years; by 1980 it had dropped to 25 years. Today it’s just 18.

Those numbers suggest that as companies grow, they need a better way to manage metamorphosis—a reliable process that will enable them to shift gears without falling apart. We believe dual transformation will allow companies not just to survive the next disruptive challenge but to harness disruptions again and again to build enterprises that can thrive over the long haul.
Societies are not resilient to extreme weather today. To reduce this resilience deficit action needs to be taken by the international community, governments, local policymakers, the private sector and non-governmental organisations. Lessons can be learnt from past events. The two examples below illustrate how the impact of similar extreme events can be different if action is taken to build resilience. Odisha cyclones: 1999 versus 2013 Odisha (formerly Orissa) is one of the most disaster-affected states in India. Two comparable events are the ‘Super Cyclone’ 05B in October 1999 with wind speeds up to 260 km/hr and Cyclone Phailin in October 2013 with wind speeds up to 220 km/hr. In 1999 there were almost 9,000 people killed across 14 of Odisha’s 30 districts.

Resilient Routing Layers (RRL) and Multiple Routing Configurations (MRC) have been proposed as methods to achieve fast recovery from router and link failures in connectionless networks. In this article we show how RRL and MRC can be implemented using the Multi Topology routing scheme and the Stub Router advertisements currently developed within the IETF.

Two Tribes. By Chris Smaje, originally published by Small Farm Future. September 19, 2016. But in relation to the Stewart Brand route, after listening to a few of the presentations I’ve got to say that, by God, it’s a close-run thing. In the transport session, for example, those of us who live in the countryside were invited to raise our hands, and were then ritually humiliated for our carbon-intensive sins. Resilience is a program of Post Carbon Institute, a nonprofit organization dedicated to helping the world transition away from fossil fuels and build sustainable, resilient communities. Content on this site is subject to our reposting policy. About us.