

REAL WORLD CASE

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The New York Times and Boston Scientific: Two Different Ways of Innovating with Information Technology

Almost everybody has a theory about how to save the U.S. newspaper industry. The only consensus, it seems, is that it needs to change fundamentally or it could all but disappear. At *The New York Times*, tough times have elevated IT-enabled innovation to the top of the agenda.

A research and development group, created in 2006, operates as a shared service across nearly two dozen newspapers, a radio station, and more than 50 Web sites.

"Our role is to accelerate our entry onto new platforms by identifying opportunities, conceptualizing, and prototyping ideas," explains Michael Zimbalist, the company's vice president of R&D.

Zimbalist's staff of 12 includes experts in rapid prototyping, specialists in areas like mobile or cloud computing and data miners who probe Web site data for insight into what visitors do. They work within a common framework based on idea generation, development, and diffusion throughout the business. Recent projects included prototypes for new display ad concepts, as well as BlackBerry applications for Boston.com and the expert site About.com. The team's work is intended to supplement and support innovation taking place within the business units. For example, the team is prototyping E-Ink, an emerging display technology; some business units can't spare the resources to investigate it.

At NYTimes.com, the design and product development group of Marc Frons, CTO of Digital Operations, worked with Zimbalist's team and Adobe developers on the Times Reader 2.0 application, the next generation, on-screen reading system it developed on the Adobe AIR platform. Frons further encourages forward thinking among his 120-person team with twice-annual innovation contests. Winners receive cash, recognition

and the resources to turn their ideas into reality. Typical projects are measured against criteria like revenue potential or journalistic value. R&D projects aren't. "Since we build software, there's no huge capital investment up front," Frons says, "which allows us to experiment. The emphasis is on rapid development."

Times Widgets, a widget-making platform, was a contest winner, as was the recently launched Times Wire, a near real-time customizable interface for online content. "We're trying to solve specific problems and think about where the business is going," Frons says. Frons is focused on enhancing revenue, cutting costs, and increasing efficiency through process improvements and automation.

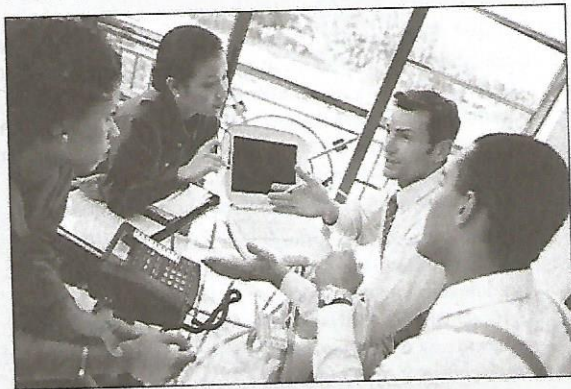
The New York Times has launched a cool interactive map that shows the most popular Netflix rentals across 12 U.S. metropolitan areas: New York, San Francisco/Bay Area, Boston, Chicago, Washington, Los Angeles, Seattle, Minneapolis, Denver, Atlanta, Dallas, and Miami. If you're a Netflix junkie and a closet *Twilight* fan (and you live in a major U.S. city), your rental habits are now on display. To create the map, *The New York Times* partnered with Netflix. The map is a graphical database of the top 100 most-rented Netflix films of 2009 laid on top of maps. With it you can graphically explore top 2009 Netflix movies based on three criteria: films that were hated or loved by critics, an alphabetical list, and most rented. For example, select most rented, and when you place the mouse over a zip code, a window pops up showing you what the top Netflix rentals are for that specific region.

Some trends are not surprising: The most popular Netflix movie of 2009 was *The Curious Case of Benjamin Button*, although *Slumdog Millionaire* and *Twilight* were both in the top 10. *Milk*, the story of San Franciscan activist Harvey Milk, was popular in San Francisco and other city centers, but not so much in the suburbs of southern cities (such as Dallas and Atlanta). *Mad Men*, the 1960s-set drama about advertising execs, was hot in parts of Manhattan and Brooklyn, but not in any other major cities. It barely got mention in Denver and Dallas, and not at all in Miami.

The map does show some interesting trends: Big blockbusters were not as popular in city centers (*Wanted* and *Transformers: Revenge of the Fallen*, barely made a splash in the city centers of Manhattan and San Francisco), although this could be due to the fact that a lot of people see blockbusters in movie theaters. *Last Chance Harvey*, a romantic comedy starring Dustin Hoffman and Emma Thompson, was enjoyed in wealthier suburbs (such as Scarsdale), but not in city centers (such as Manhattan). Tyler Perry's movies (Tyler Perry's *Madagascar Goes to Jail* and Tyler Perry's *The Family That Preys*) were popular in predominantly black neighborhoods.

Much of what has been innovative thus far at *The New York Times* can be classified as process or product innovation. Typically, a healthy and growing company should be content with focusing 90 to 95 percent of its innovation dollars on such core business innovation and 5 percent or 10 percent on new business models, says Mark Johnson, chairman

FIGURE 1.16



IT can enable innovation initiatives as companies seek to develop new products and services.

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of strategic innovation consultancy Innosight. However, he adds, "The newspaper industry is in so much trouble that business model innovation is more important than ever."

Now is a good—and bad—time for fostering such innovation. "You've got the leadership's attention you need," says Johnson. "But it's harder in the sense that there's an urgency to fix the financials, and being patient in the way you need to be for a new business model to unfold is a very difficult thing to do."

The New York Times is focused on experimenting with a number of different initiatives, but Boston Scientific faces a much different challenge: how to foster innovation without risking the disclosure and leakage of very valuable intellectual property. And the company has turned to technology to help find the right mix of access and security.

Boston Scientific wants to tear down barriers that prevent product developers from accessing the research that went into its successful medical devices so that they can create new products faster. But making data too easily accessible could open the way to theft of information potentially worth millions or billions of dollars. It's a classic corporate data privacy problem.

"The more info you give knowledge workers, the more effective they can be in creating a lot of value for the company," says Boris Evelson, a principal analyst at Forrester. "This creates disclosure risks—that someone's going to walk away with the data and give it to a competitor."

This tension compels the \$8 billion company to seek out software that allows the broader engineering community to share knowledge while managing access to product development data, says Jude Currier, cardiovascular knowledge management and innovation practices lead at Boston Scientific. "Active security is the way to address this problem," Currier says.

That is, regularly monitor who's accessing what, and adjust permissions as business conditions change.

Keeping the pipeline of new stents, pacemakers, and catheters fresh is especially important because heart-related items account for 80 percent of Boston Scientific's sales. Over the past few years, engineers have been focused on

quality system improvements, Currier says. Boston Scientific had inherited regulatory problems from acquisitions it made during that time. Now that those situations are addressed, the company is ready to reinvigorate internal innovation.

Boston Scientific is piloting Invention Machine's Goldfire software, which, Currier says, provides the right mix of openness and security for data. Before, Boston Scientific's product developers worked in silos with limited access to research by colleagues on different product lines. Information was so locked down that even if scientists found something useful from a past project, they often didn't have access to it. "We're changing that," Currier says.

Goldfire makes an automated workflow out of such tasks as analyzing markets and milking a company's intellectual property. It combines internal company data with information from public sources, such as federal government databases.

Researchers can use the software to find connections among different sources, for instance by highlighting similar ideas. Engineers can use such analysis to get ideas for new products and begin to study their feasibility. The goal is to have any engineer be able to access any other engineer's research.

"The people in the trenches can't wait for that day to arrive," he says.

Although the goal is more openness, not all data stay open forever. For example, as a project gets closer to the patent application stage, access to the data about it is clipped to fewer people, Currier says.

He adds that since installing Goldfire, patent applications are up compared to similar engineering groups that do not use the Goldfire tool. "We have had to educate people that we aren't throwing security out the window but making valuable knowledge available to the organization," he says.

Source: Adapted from Stephanie Overby, "Rapid Prototyping Provides Innovation that Fits at the New York Times," *CIO.com*, June 24, 2009; Sarah Jacobson, "Netflix Map Shows What's Hot in Your Neighborhood," *PCWorld.com*, January 11, 2010; and Kim S. Nash, "Innovation: How Boston Scientific Shares Data Securely to Foster Product Development," *CIO.com*, November 23, 2009.

CASE STUDY QUESTIONS

1. As stated in the case, *The New York Times* chose to deploy their innovation support group as a shared service across business units. What do you think this means? What are the advantages of choosing this approach? Are there any disadvantages?
2. Boston Scientific faced the challenge of balancing openness and sharing with security and the need for restricting access to information. How did the use of technology allow the company to achieve both objectives at the same time? What kind of cultural changes were required for this to be possible? Are these more important than the technology-related issues? Develop a few examples to justify your answer.
3. The video rental map developed by *The New York Times* and Netflix graphically displays movie popularity across neighborhoods from major U.S. cities. How would Netflix use this information to improve their business? Could other companies also take advantage of these data? How? Provide some examples.

REAL WORLD ACTIVITIES

1. The newspaper industry has been facing serious challenges to its viability ever since the Internet made news available online. In addition to those initiatives described in the case, how are *The New York Times* and other leading newspapers coping with these challenges? What do you think the industry will look like 5 or 10 years from now? Go online to research these issues and prepare a report to share your findings.
2. Go online and search the Internet for other examples of companies using technology to help them innovate and develop new products or services. Break into small groups with your classmates to share your findings and discuss any trends or patterns you see in current uses of technology in this regard.