

Looking inside to solve technology problems, e-retailers find themselves in new markets

—By Paul Demery

Several months ago, things weren't quite as organized at CableOrganizer.com as co-founder and chief operating officer Paul Holstein wanted. The retailer sells everything someone might need to connect computers and other electronic devices to a power source—electric cables and wires, tools for modifying them, materials for fireproofing them, even devices for organizing messes of them neatly under a desk.

CableOrganizer.com also sells

popular office supplies like label printers, but shoppers searching the Internet for label printers would often land on its home page—only to quickly abandon it when they couldn't find the label printers link, which was toward the bottom—“below the fold” in designer parlance—of the navigation bar. “We're a big seller of label printers, but Google wasn't sending searchers to our label printer page, only to our home page, and they would just leave,” Holstein says.

Innovative juices

But the problem got Holstein's

innovative juices flowing. A certified public accountant by training and a former business technology consultant for the big accounting and technology advisory firm Ernst & Young, he thrives on fixing things that block business. “I love what I do,” he says.

With tons of cable-related products to display, the CableOrganizer.com home page usually grants label printers only a listing in the bottom half of the site's vertical navigation bar—where few shoppers arriving from an Internet search bother to look, Holstein admits.





So Holstein brainstormed with his four-person I.T. staff to develop a product they call "Precognitive Search." It's designed to intercept keywords as Internet searches hit its network servers and re-route the search to the optimal pages for shopping—for example, to the product page for label printers when shoppers search on "label printers" or a related keyword. Developed with technology from interactive marketing platform provider Sitebrand, and modified in JavaScript and the PHP HTML scripting language, Precognitive Search can work with searches channeled through any Internet search engine, Holstein says.

So far, Holstein and his team have come up with four home-grown technology applications, with more on the way, he says. Although the intent is always to improve CableOrganizer.com's own business, the products eventually make their way into other retailers with similar problems that Holstein meets. And in the case of at least one

application, the Precognitive Search tool, CableOrganizer.com is in discussions to sell its software code to vendors of site search technology.

Humble beginnings

[CableOrganizer](http://CableOrganizer.com) and other Internet retailers are building on and profiting from a legacy of technology innovation with roots in the early days of e-retailing. Much retailer-driven innovation has come from e-retailers who started on shoestring budgets at the dawn of retail e-commerce in the 1990s. "Lack of money forces innovation," says Rob Garf, vice president and general manager of retail strategies for research and advisory firm AMR Research Inc., who several years ago worked on innovative ship-to-store software and other applications for hats retailer Lids.com.

Today, though, things are a bit different and many times innovation is coming not so much from lack of dollars as from a desire to be in control of the technology or to create a technology that fills a specific need and that is not readily available

in the open market. "Retailers are in a great position to incubate new technologies based on the problems they're solving in their own operations," Garf says. "Once a retailer can crack the code to solve problems for themselves, it becomes an interesting opportunity for them to make their technology commonly available."

At eBags Inc., a retailer recognized for its innovative, home-grown e-commerce platform, its thrust into technology development along with its foray into new geographic markets have opened up a line of business as a provider to other retailers.

One of the first e-retailers to develop an online customer review application when it launched in 1999, eBags, working in Microsoft Corp.'s .Net technology environment, has also configured its own order

management system and other applications, including product videos to support the merchandising of 12,000 bags from 250 brands. Its experience attracted requests from other companies to host their retail e-commerce operations. "Selling technology wasn't our business and we didn't want to be in the business of building new brands, but we realized we could take our same principles and technology and selectively apply them for others," says Peter Cobb, co-founder and senior vice president.

Ongoing development

For the past five years, eBags has operated the retail e-commerce site of Tumi, the luxury handbag brand. And the ongoing development by eBags in markets as well as technology has broadened its relationship

between the two companies. After eBags launched its own retail site in the U.K., it also built and operated a Tumi site in the U.K., followed by Tumi sites in Germany and Japan. eBags operates the three foreign-based Tumi sites and forwards orders to warehouses operated by Tumi in Europe and Asia.

eBags also launched and operates the first retail e-commerce site of Case Logic Inc., a retailer of carrying cases for laptops, cameras and computer-related products. As it did with Tumi, eBags chose to work with Case Logic because it's a company with a strong brand and customer base in a related market that needed an e-commerce partner, Cobb says.

While CableOrganizer and eBags have stuck to their own retailing operations as their core

business, other online retailers or teams of retail executives have made a complete transition to operating as technology vendors ingrained with retailing experience.

Last fall, a group of former executives of Orbitz, the online travel agency, took their experience in risk management to form Accertify LLC and launch the web-enabled Interceptas payments risk management application. Building on what worked for them at Orbitz, the Accertify team designed Interceptas to let retail managers pull information from multiple databases, including consumer addresses, past purchase history, chargeback records and account verification records, and present the data simultaneously on a single computer screen. "You

can review more orders without going back and forth to multiple databases," co-founder and chief marketing officer Mike Long says.

In some cases, the value of a vendor's retail heritage can win over retail clients even without openly promoting that heritage. Although eBags rarely goes outside its own 40-person I.T. staff to buy commercially available technology applications, one application it has decided to acquire from a vendor is its Scene7 image management system from Adobe Inc., which acquired the former Scene7 Inc. last year. "Every once in a while we look at the technologies on the market," Cobb says. "We had our own image management system, but Scene7 was doing so many things with integrated zoom and other

things—these guys think about this stuff every day."

Image management

Image-management was becoming so complicated—including the need to create several versions of product photos at multiple pixel levels, and then to make them twist and turn at shoppers' wills—that eBags decided it could realize a better return on investment by going with the Adobe Scene7 system, Cobb says. "It became an internal resources v. purchase decision," he says. "We realized we could save a lot of time by not having our own people manage images."

Beyond the technology, however, Cobb says he values the sharing of ideas he gets when talking with Doug Mack, the head of Adobe Scene7. "He has good vision," Cobb says.

Cobb says he was surprised to learn that Mack and two other Scene7 founders still with Adobe Scene7—Sheila Dahlgren and Peter Noel—are former retailers who initially developed the technology behind Scene7 at GoodHome.com, a home furnishings retailer they launched in early 2001.

Prior to GoodHome.com, Mack and Dahlgren worked in the late 1980s at the former Broderbund Software, which was known for its production of graphic-heavy computer games like “Where in the World Is Carmen Sandiego?” and room-design software that let consumers visualize what their home interiors could look like with particular products including furniture and multiple choices of paint. “We had close to 70% of the market for room configurators,” Mack recalls.

The room configurator software was distributed on CD-ROMs, but by the late 1990s with the growth of the Internet, Mack and his partners decided to develop a new business model. Instead of selling the configurators on CD-ROMs, they launched GoodHome.com as a retail site that provided free online use of the configurator software along with the opportunity to purchase online the same home furnishings products used to design the virtual room settings.

GoodHome.com’s mid-1999 debut came shortly before the Internet investment bust, however, and “the level of investment to build a brand like GoodHome was too high,” Mack says. But before closing its doors in 2001, the retailer began attracting interest in its visualization technology from established retailers,



Paul Holstein, CableOrganizer.com:
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some of whom were just beginning to develop a retail e-commerce presence. In January 2001, Mack and his partners launched Scene7 with customers including Home Depot, Victoria's Secret and electronics and home appliance manufacturer Sanyo.

The experience in developing the configurator software, online as well as in CD-ROM form, taught

Scene7 a lesson that has stayed with the partners throughout their work at Scene7 and Adobe, Mack says. The early configurator programs included some that relied on non-photographic line drawings, but they paled in comparison to the configurators with photographic images.

"We learned that absolute photographic realism is a must, that whatever you dynamically render must look photo perfect in order to enable higher conversion rates and sales," he says.

Mack adds that Scene7's absorption by the corporate world of Adobe hasn't dulled its focus on retailers. Rather, he contends that his team's roots in retailing help to keep Adobe focused on the needs of online merchants. The company now provides better integration between its programs for designing images, outputting them to PDFs, then publishing them to a web site in Scene7's image management system, he says. "We never lost our retail DNA, which makes us constantly think about what will delight the end consumer," he says.

At CableOrganizer, the focus of innovation always centers initially on what works for CableOrganizer itself, Holstein says. "It has to make sense for us, because we're not in the software business," he says. "We have

to first ask ourselves, Are we going to make money using this new technology in our own retail operations?”

So far, the return on investment has been good, he adds. CableOrganizer has spent about \$20,000 in time and resources on each of its technology projects—including two other products that improve web analytics and site navigation by ensuring that web pages are properly tagged and organized—and has earned back the cost through its own improved retailing performance. “The Preconfigured Search tool has already paid us dividends through money saved on search ads, a reduced bounce rate and increased sales,” he says.

Relieving the boredom

One of Holstein’s latest projects is

designed to provide a connection between Internet search-driven online shopping activity and call center orders. If a shopper clicks the image of a call center rep, software automatically generates a code that CableOrganizer will use to associate an order placed through the contact center with the natural-search keyword the shopper used to arrive at the site. “So we can tie that phone order back to what keywords the shopper searched on,” Holstein says.

Technology innovation also pays other types of dividends, adds Cobb of eBags. Developing the Japanese site for Tumi has been an enormous challenge, including the development of its own language translation software that must account for the way Japanese vertical script forces changes

in how images are displayed on web pages. “It’s taken thousands of man-hours to develop and maintain that site, but it keeps our employees fresh,” Cobb says. “Working on the same things every day gets boring.” ●

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