RFID JOURNAL

Creating a Unique Retail Experience

Common People blends chic ambiance, an eclectic mix of art and fashion, and RFID technology to wow consumers.
By Mark Roberti

Feb. 14, 2011—Every retailer in the world dreams of creating a store that is a destination—a place to which locals and tourists flock because being there is an experience, and buying something is a reminder of that experience.

Monika Feldman and her husband, Max, have done just that in Mexico City, turning a four-story, 5,200-square-foot 1940s Colonial-style mansion in the high-end Mexican district of Polanco into a unique shopping experience. Their store, Common People, combines chic ambiance, an eclectic mix of art and fashion, and radio frequency identification.

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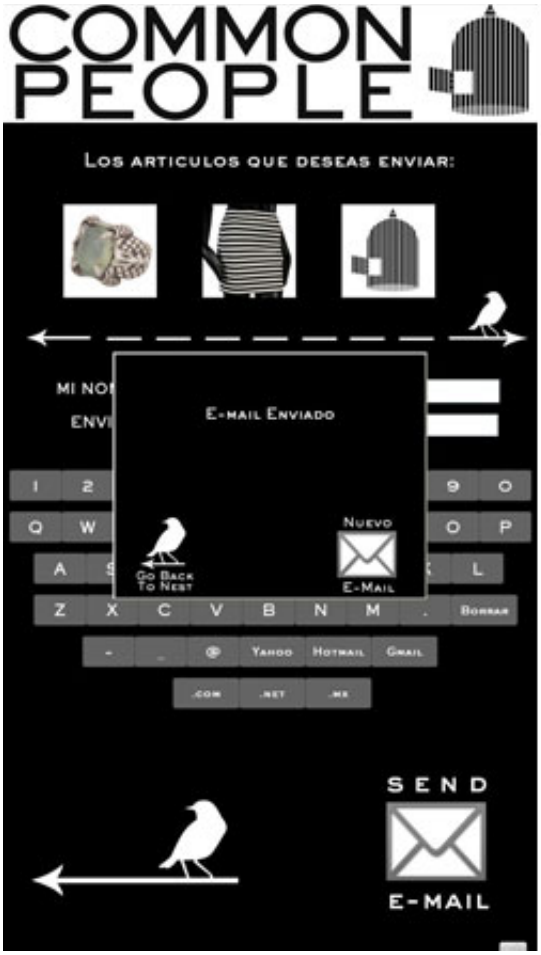
Monika Feldman says she had admired the house every day while walking by it on her way to Byzanz, the fabric shop across the street that she and her husband own. Thus, she says, they decided to turn it into "a place to be filled by uncommon things for common people."

The store, which opened in November 2010, caters to everyone, Feldman says. It features a wide variety of products, including clothes designed by Comme des Garcons, Carolina Herrera, Alessa Casati, Chic by Accident and Prada, as well as jewelry from Alexis Bittar and others. There are also books, DVDs, music CDs and home furnishings, and the store hosts exhibits from local and international artists—the first of which featured glass pieces by Mexico's Orfeo Quagliata, including a seven-foot-long glass syringe filled with Swarovski crystals.

"Our clients range from high-school boys who might come in and spend $100 to women with American Express Black cards," Feldman states. "Everyone enjoys seeing these beautiful pieces. It's an experience."

The building and its contents are the stars of the show, but radio frequency identification plays a supporting role. The technology is used in interactive displays that add an additional touch of interest and excitement to the store,



A customer can send an e-mail containing images of the products to friends and relatives, along with prices, the store address and other information.

while also helping to manage the more than 10,000 items available for sale. "When we came up with the idea for a concept store," Feldman notes, "we knew we wanted to bring in not just the most interesting products, but also innovative technologies."

During the project's planning phase, a friend introduced Feldman to Luca Pastorello, a partner at Digilogics S.A. de C.V., a Mexico-based label converter that provides RFID solutions to retail apparel, government services and logistics firms, as well as businesses in other sectors. Pastorello, in turn, introduced her to the concept of social shopping, in which technology is used to enable consumers to share images of items in real time with friends in remote locations. He also showed Feldman how RFID could be used to provide information about items, as well as manage inventory.

"I fell in love with the system," Feldman says. "It was amazing."

How the System Works

"Everything in the store is tagged, which allows the customer to get more information on each product," Pastorello explains. But tagging each of the retailer's 10,000 items was a challenge. Digilogics tested a variety of passive ultrahigh-frequency (UHF) transponders from UPM RFID, including the company's ShortDipole, Trap and Web tags, at its 450-square-meter (4,844-square-foot) lab.

All of UPM RFID's tags are based on the second-generation EPC air-interface protocol standard, and employ Impinj's Monza 3 chip. The ShortDipole tag was designed for use either in the supply chain or on individual items within a store.

The antenna, which features four arches, measures 3.7 inches by 0.433 inch (94 millimeters x 11 millimeters). The Web tag is smaller and is designed for item-level use. Its antenna measures 0.866 inch by 1.575 inch (22 millimeters x 40 millimeters). The trap tag is the smallest of the three—measuring just 0.315 inches by 0.866 inches (8 millimeters by 22 millimeters)—and is designed for tagging small items and reading them at short range (it has a near-field antenna).

To guarantee that the tags could be read consistently, Digilogics also conducted testing at the store just before it opened. Digilogics determined that it could achieve a 99 percent read rate by utilizing ShortDipole hangtags on apparel items; ShortDipole labels for books and shoes; Trap tags for CDs, DVDs, books, jewelry and cosmetics; and Web tags for sunglasses.

Since many of the items in the store are one-of-a-kind or limited-edition, suppliers were not interested in tagging the goods at the point of manufacture, so each item is tagged as it arrives at the store. Two or three days before a shipment is slated to arrive, a supplier sends an e-mail

One popular feature in the store is a display of RFID-tagged sunglasses. The kiosk contains a Speedway reader, an interactive touch screen and a camera mounted above a mirror.

containing a list of all products that will arrive at the store, so that they can be input in advance into the retailer's enterprise resource planning (ERP) software.

When the shipment arrives at the store, the items are sent directly to a small storeroom, where an employee checks what arrived against an advance shipping notice. Next, the worker chooses the appropriate tag for each item. Common People is equipped with two RFID label printer-encoders, provided by Zebra Technologies, which it uses to print and encode the RFID labels.

A proprietary serial number encoded on each UPM tag is associated with the corresponding item in the inventory-management system (the tags are EPC Gen 2-compliant, but do not use GS1's numbering scheme). The serial number is also associated with that particular item in the ERP system.

According to Pastorello, an employee can tag and register, on average, approximately 100 items per hour. The tagged products are then moved out to the sales floor. (There is no back room for storage at the store.)

Common People rents space within the store to various apparel, accessory, shoe and other product suppliers. These items are tagged, just like the inventory that the retailer purchases for resale. Store associates can take inventory of all items within the store, including those in areas rented by fashion designers and other suppliers, using a CS101 handheld reader produced by Convergence Systems Ltd. (CSL).

The touch screen displays information regarding specific pairs of sunglasses, and shoppers can utilize the display's built-in camera and interactive screen to snap pictures of themselves trying them on, and then e-mail those photos to friends and family members.

The data captured by the handheld is exported as a CSV file that is then uploaded manually via a USB cable plugged into any PC or laptop on the store network. That information is sent to a Web-based inventory-management application developed by Digilogics, known as Digistore. A fixed RFID reader, CSL's model CS203, is located at the point of sale. Data captured by this reader is forwarded to a point-of-sale terminal that has two screens—one facing the store associate, the other displaying the item and price for the customer. Each time an item is sold, this information is also uploaded to the secure Digistore application, and that product is then removed from inventory.

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"The system lets Common People's suppliers see what is selling and not selling," Pastorello explains. "Right now, an employee is taking inventory once a week, but we expect them to eventually do it every day, since RFID is so quick and convenient. This would give partners real insight into what is happening in their area of the store."

A single worker can take inventory of the entire site at the end of the day, Pastorello says, so only one person is required to manage the store. "This benefits the store owner by keeping labor costs down," he states. "And the up-to-date sales and inventory information benefits the suppliers."

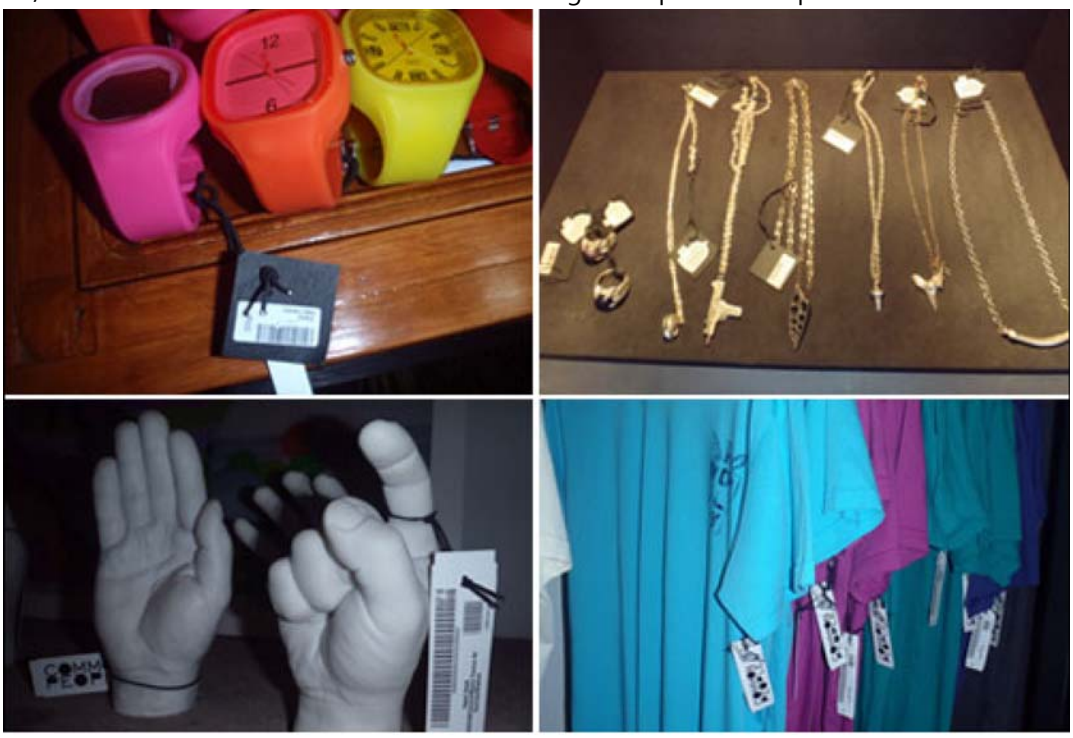
Enhancing the Shopping Experience

Common People installed Impinj Speedway readers within the second-floor dressing rooms, where a touch screen welcomes customers and displays an icon that, when clicked, will summon a sales associate. When a customer hangs up garments that he or she wants to try on in the dressing room, the RFID tags on those items are read and images of the clothing are displayed on the touch screen, under the label "Eggs in the Nest." The screen then displays recommended accessories, on which the shopper can click to obtain additional information, such as their manufacturer and cost. The customer can also send an e-mail containing images of the products to friends and relatives, along with prices, the store address and other information.

Another popular feature in the store is a sunglass display with a Speedway reader, an interactive touch screen and a camera mounted above a mirror. The sunglasses are all tagged. The system employs a motion sensor to determine when a customer picks up a pair of glasses, and can identify that particular pair via an RFID antenna designed to read only the tag on the item being tried on. The touch screen then displays a wealth of information regarding that specific pair of sunglasses. Shoppers can utilize the display fixture's built-in camera and interactive screen to snap pictures of themselves trying on various glasses, and then e-mail those photos to friends and family members.

Feldman and Pastorello say they did consider potential privacy concerns. To assure customers that the tags could not be used to track them, transponders were put in hangtags and in labels on the soles of shoes, so that a shopper can remove them at home. To date, they note, there have been no complaints.

There is only one sunglass kiosk, Pastorello says. If a customer arrives at that kiosk while another person is using it, the second individual typically looks around for a while and comes back later. Staff members sometimes demonstrate the kiosk to small groups. "The space where the kiosk is located doesn't allow people to form a line," he says, "and there are a lot of interesting things to see in that area, instead of waiting to use the kiosk."



Examples of tagged items within the store.

"Customers love it," Feldman states, referring to the RFID-enabled interactive displays. "Everyone who tries on the sunglasses snaps a photo and sends it to a friend. And the experience doesn't stop there, because they get e-mail feedback from friends. We find that when they return to the store, they usually do it again."

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According to Pastorello, it's impossible to determine the extent to which the RFID-enabled sunglass kiosk and dressing room have increased sales, though he says a similar application deployed for another retailer—which he declines to name—boosted sales at that store by 2.5 percent.

Feldman has plans to RFID-enable one of the six dressing rooms downstairs, and is interested in smart mirrors and other RFID retail applications that she has read about. "We are always looking at new things," she says. "We want to keep the store evolving and changing."

And that, no doubt, will keep customers coming in.