

BRIGHT IDEAS

PROTOTYPE  
AMY WALLACE

# Behind The Many Faces of Innovation, 2010

LAST week was Doyle Doss's busiest of the year. An advocacy group for the homeless had called from St. Louis to buy 12 of his Kandle Heeter Candle Holders, which promise "dry, radiant space heat from a candle" for just \$29.95 each. He also had a bunch of laminated wildlife portraits — priced at \$14.95 and sized to "make your refrigerator happy" — to put in the mail, and so many wearable hummingbird feeders on order that he had to hire part-time help to build them all.

Yes, you read that last one right: Mr. Doss, whose tiny creative enterprise, Doss Products, is based in a chilly cow barn just south of Eureka, Calif., is the proud inventor of a hummingbird feeder that he calls the :-2<: (pronounced "eye 2 eye"). Priced at \$79.95, it is a red, helmetlike contraption that dispenses sugar water from a tube positioned between two eyeholes. You wear it on your face.

"Innovation and invention in America are not dead," wrote Mr. Doss, 62, in an e-mail that included links to YouTube videos that he said proved his point. In them, hummingbirds hovered two inches above people's nostrils, sticking their beaks into the red, vaguely frightening masks.

Watching them, you couldn't help but think: If that isn't American ingenuity at its wacky finest, what is?

Prototype heard from hundreds of inventors in 2010, and most told of a problem they had encountered that they just had to solve. Among the things that stoked their creativity were cleavage, a skiing accident, a tattered pair of blue jeans, the complications of shaving, and the desire to not spill a cup of coffee while boarding an airplane. The solutions included a variety of products and services: a snap-to-bra camisole-like device (cleava.com), arch supports (lovemystrutz.com), a repair service for beloved jeans (denimtherapy.com), a razor whose handle dispenses shaving cream (ShaveMate.com) and a portable cup holder (cup-pilot.com).

More was motivating many of these folks than mere necessity or the hopes of striking it rich. In many of the e-mails, there was an undercurrent of something more fundamental: the inventors' need to express themselves, to leave their mark and to communicate and connect with others not by talking or writing, but by building stuff.

"It's an ego thing," says Pam Staro-



A wearable hummingbird feeder, a whimsical invention from Doyle Doss, keeps nature up close and personal.



Tired of staring at the backs of people's heads in theaters, Pam Starobin, at 4-foot-11, devised a portable booster seat.

bin, another inventor who got in touch. Ms. Starobin, 55, is a librarian who lives in Yonkers. She's something of a renaissance woman, with a nearly com-

pleted master's degree in art history and a previous career writing computer software; she invented CostGuard, a program for restaurant and food service

management. But her proudest achievement, professionally speaking, is her invention of an adult booster seat. Ms. Starobin, you see, stands just 4

feet 11. And when she sits, well, she's even shorter. For years, a trip to the theater made her teeth grind together as she stared at the backs of people's heads. At some low-slung restaurants, it was as if her chin barely reached the tabletop. "I'd seethe, instead of enjoying what I'm doing," she says. "I thought: I can resolve this."

The Sitting Taller Handbag (sittingtaller.com) is the result. Made of furniture-grade foam hidden inside a leather shoulder bag, it comes in black, red or green and sells for \$129 for a 2½-inch lift (\$139 for 3½ inches). Ms. Starobin has its leatherwork sewn for her, but she makes all the pillows herself. Since starting in March 2008, she says, she's sold several hundred.

Does she make any money? "A very little bit," she says. "I'm not leaving my job — let me put it that way." But what she lacks in remuneration she makes up for in satisfaction. She gets letters that say things like: "Just so you know, this present was the biggest hit at Hanukkah. You made a 96-year-old lady who still loves the philharmonic and theater very, very happy!"

"It's like, I've helped someone," Ms. Starobin says. "It's pretty cool."

MR. DOSS, too, is motivated by utility. "How do I help people stay warmer in winter?" was the question that kick-started his inventing career, he says. The son of an Arkansas farmer who taught him "If it broke, you fixed it; if it broke twice, you figured out how to make it better," Mr. Doss has been building things since he got his first Erector Set in childhood. He's proud that his candle heaters and another heating device — the BluBox Thermal fan, which pumps the warm air that has risen to the ceiling back down to the floor — are designed to save users money.

But there's nothing very utilitarian about Mr. Doss's wearable hummingbird feeder. It's pure whimsy, and he says he's sold nearly 400 of them during the last 13 months. He attributes its popularity to people's desire to connect to nature — and to the fact that Craig Newmark, the founder of Craigslist, posted a link on Twitter to one of his videos in the fall of 2009. It was promptly watched by 300,000 people.

Where did Mr. Doss get such a bizarre idea? It all goes back to a Sunday morning 30 years ago, when he stepped onto the back porch of his parents' home in Northern California and a hummingbird "dropped down right in front of my face." At the time, Mr. Doss had a "huge red ZZ Top kind of beard" and the bird found it irresistible.

"It was one of the most incredible experiences I have ever had with an animal," he says. "I thought, 'How can I recreate that and share it with others?'" After much tinkering to design the perfect feeding tube, he began selling them online at heatstick.com, and each is still built by hand.

"The inside of the mask has this forest scene, so when you put it on, it's very meditative, contemplative. You're being still," he says.

He could be describing the process of invention itself: "You hear the hummingbird a tenth of a second before it's in front of you. The first time this happens, you freeze. But then the adrenaline rush slows down." □

DIGITAL DOMAIN  
RANDALL STROSS

# Someday, Store Coupons May Tap You on the Shoulder

CLIPPING coupons is a hassle. Intentionally. If shoppers were to redeem any more than just a sliver of them, manufacturers would have a self-created financial catastrophe on their hands.

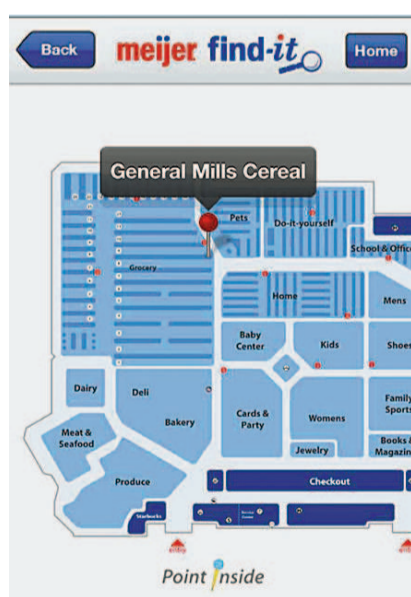
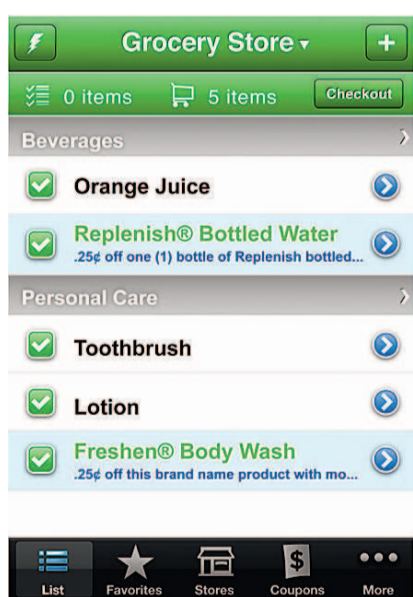
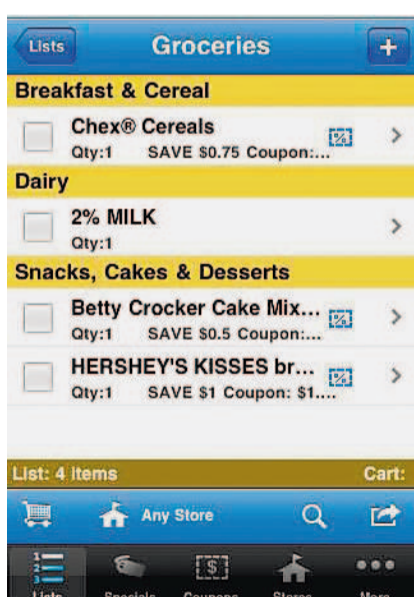
Digital technology could eventually make coupon-clipping with scissors a quaint oddity. And manufacturers are willing to make clipping easier, but not too easy: they don't want to reduce prices for customers who'd buy a product anyway. Ideally, coupons will continue to be redeemed only by those who hold out for a deal — those whom marketing experts call "deal prone."

More than three billions coupons a year are redeemed in the United States, says Steven R. Boal, C.E.O. of Coupons.com, founded in 1998 and based in Mountain View, Calif. Last year, about half of all redeemed coupons originated in the weekly coupon supplements inserted in local Sunday newspapers, according to Coupons.com's estimate. But coupons distributed online accounted for 9.8 percent of all coupons redeemed in 2009, up sharply from 1.1 percent in 2006. (Efforts to find data from another source were unsuccessful.)

By visiting Coupons.com or its affiliates, shoppers don't have to wait for Sunday. They can browse coupon offers at any time online, by product category or expiration date, then print the selected coupons on their home printers.

The digital-to-paper process still ends up requiring scissors — and you have to remember to take the coupons to the store in time. At Coupons.com, printing on a home printer requires installation of its software, which places a unique verification code on each coupon; as a result, the company says, the redemption fraud rate is less than 0.05 percent.

Randall Stross is an author based in Silicon Valley and a professor of business at San Jose State University. E-mail: stross@nytimes.com.



Apps like Grocery Pal, left, and GroceryiQ, center, can show digital coupons for items on your list. At right is a prototype of a store-map app from Point Inside that may someday serve up coupons based on where you are in a store.

The next step in the coupon's evolution is the all-digital version. At Coupons.com and other sites, clicking on an onscreen display can place a coupon on a particular retailer's loyalty card, like Safeway's Club Card, ready to be applied at checkout. But, of course, shoppers have to remember what they placed on the card, or, at least, remember to print out a list of coupons stored on the card before heading to the store.

Not everyone is willing to go to such trouble. "Loyalty-card-based coupons have had a lower redemption rate without a reminder," Mr. Boal says.

Being able to see the coupons saved on your smartphone, or, even better, to have saved coupons show up automatically on the phone's grocery-list app, would make digital coupons much easier to use. This has come to pass, with apps like GroceryiQ (a Coupons.com

product), Grocery Gadget and Grocery Pal, to name just a few.

The blend of Web and smartphone technology preserves the essential restriction — the discount is offered only to those who have gone to some trouble to get the coupon. But it makes coupon clipping, or "coupon clicking," appealing to more consumers.

"The retailers tell us that about one-third of the people doing direct-to-card are new to couponing," says Robert Drescher, the chief executive of Cellfire, a digital coupon company in San Jose, Calif. "The users do skew younger and also more male."

Still, the fundamental proposition of coupons remains unchanged.

"Coupons are 'costly' to collect. Even looking online — that's an effort," said Peter Darke, an associate professor of marketing at York University in Toron-

to. "There's a lot of junk you have to go through to find ones you want. The amounts are small. So it takes a concerted effort to gather enough to make it worth one's while."

But what if manufacturers could make coupon offers on the spot, as you stood in the aisle, within sight of the promoted product? Your cellphone would identify your shopping predilections, allowing the manufacturer to withhold the offer if you were likely to buy the product anyway. The offer could go exclusively to those who just needed a little nudge.

The possibility is not a distant one. Point Inside, a mobile technology company in Bellevue, Wash., has been testing still-incomplete technology for determining where shoppers are standing in grocery stores and big-box retailers. The goal is to determine accurate loca-

tions to within one meter.

"You'll probably have to create a new term for serving an ad unit based on where you are standing in a store," says Joshua L. Marti, the company's chief executive. "Hyperlocal" does not convey how local we're talking about."

Current smartphone technology uses GPS and WiFi to find locations, but they are generally accurate only to within 30 meters or so, Mr. Marti says. And GPS loses accuracy as it penetrates walls. To build a system that will eventually solve this problem, Point Inside is relying on other means, like a geotagged reference point outside the store. It then uses AutoCAD software to create a detailed interior map of the store, assigning latitude and longitude to every aisle position.

The next technological challenge is geotagging the shoppers themselves. Next year, Mr. Marti expects the arrival of smartphones capable of serving as highly accurate, multidirectional pedometers. By knowing the exact latitude and longitude of the store's door, then using the phone to track how many steps a shopper takes in which directions, the shopper's current location can always be known. The vision fulfilled: Coupons sent to the phone for products within an arm's reach.

SUCH offers may well prove appealing. "Getting attention at the time of purchase is a huge advantage in getting the consumer to pick a particular brand," Professor Darke says. But the offers must be well aimed, he adds, or they will annoy people.

Annoyance may come even from good offers, if they are ubiquitous. One can picture a dystopian future of cellphone screens blinking one coupon offer after another, changing with each step down a store aisle: Pick me! Pick me! No, pick me!

How many discount offers can the mind absorb without blowing up? □