



THE FUTURE OF COOKING

Why You Won't Recognize Your Supermarket in 5 Years

EVE TUROW / 03.01.16

People are actually eating nutritional yeast again. On purpose. They're experimenting with [cricket-flour cookies](http://www.epicurious.com/expert-advice/how-to-raise-cook-cricket-at-home-article) (<http://www.epicurious.com/expert-advice/how-to-raise-cook-cricket-at-home-article>). And they're getting internet-famous for posting [photos of rice krispie treats on Instagram](https://www.instagram.com/mister_krisp/?hl=en) (https://www.instagram.com/mister_krisp/?hl=en). Our overheated food culture is changing faster and faster every day. But you know the one thing that's been lagging behind?

Supermarkets. Walk into your neighborhood market, and though the food on sale is always changing, the basic environment has remained pretty much the same since the invention of refrigeration.

All that is about to change.

"The next five years in grocery will be more transformative than the last 50," says Dave Heinzinger, Senior Director of Communications at inMarket, a company that develops supermarket technology.

It has to be. Because these days the bricks-and-mortar market is facing stiff online competition. According to market-research company Mintel, 31% of consumers made a grocery purchase online in 2015, up from 19 percent in 2014, logging onto new platforms like [Amazon Fresh](https://fresh.amazon.com/welcome) (<https://fresh.amazon.com/welcome>), [GrubMarket](https://www.grubmarket.com/welcome) (<https://www.grubmarket.com/welcome>), and

“To paraphrase the old saying: The Supermarket is dead. Long live the Supermarket.”

Instacart (<https://www.instacart.com/>). Automated shipping is gaining traction. For example, the delivery app, Rosie (<https://www.rosieapp.com/>), learns purchasing behaviors and anticipates when a user should re-order everyday items like toilet paper and coffee. In due time, it seems, our washing machines will send signals to order more detergent and we’ll have an auto-schedule for air-filters to be added

into our cloud-based shopping carts every few months. Then, Alexa (<http://www.cnet.com/news/amazon-echo-and-alexa-the-most-impressive-new-technology-of-2015/>)—Amazon Echo’s voice technology—will place the orders for us.

With all that automation and convenience around the corner, will there even be a reason to step foot into a supermarket? The answer is definitely not— if we’re talking about the same supermarket you’re familiar with. But tech companies, supermarket chains, and thought-leading visionaries are working to reinvent your trip to the grocery store. To paraphrase the old saying, The Supermarket is dead. Long live the Supermarket.

The New Supermarket won’t just lure you in with its products, but with the pleasure and convenience of actually being there. “While we see more passive, automated, on-demand purchasing, we also see companies focusing on how to create an experience, a reason to come to the store,” says Sarah Smith, Research and Design Manager at the Institute for the Future’s Food Futures Lab.



An enormous burly man programming a prototype SmartCart
IMAGE COURTESY OF SMARTCART

One of the concepts currently in development? Tablet-laden smart carts, where the shopping cart itself provides recipe recommendations, lets you tick items off your shopping list and follows you through the store via body recognition sensors. Beacons like those developed by inMarket allow the cart or app to calculate a recommended route through the store and present shoppers with relevant coupons right on their phones. This concept was already tested in China (<http://www.gizmag.com/smart-cart-sk-telecom/19368/>) and is in development stateside (<http://www.chaoticmoon.com/chaos-theory/cm-bbc-smartestcart-hits-british-airwaves/>) by Accenture

Interactive’s creative technology studio Chaotic Moon.

“The shopping cart is one aspect of retail that hasn’t really evolved, even though it’s still a large part of the in-store experience. That makes it a key component in bringing modern, connected technology and possibilities to retailers,” says a Chaotic Moon spokesperson. This means that the humble supermarket cart—the one you carelessly shove into a row in the parking lot—will be able to understand which

products you're loading it up with, as well as drawing conclusions about your path through the market. "This revolution will transform how shoppers decide what products they want, how fast they get them, and how often they buy them."

Some grocery store experimentations skip the cart altogether. In fact, they sidestep the store as well, creating the supermarket through "augmented" (aka virtual) reality instead.



A Korean commuter does her supermarket shopping in a virtual space

IMAGE COURTESY LILDOREMI.ORG

That's already the reality in Korea, where grocery chain Tesco [launched a virtual grocery store](http://www.business today.in/lbs-case-study/case-study-tesco-virtually-created-new-market-based-on-country-lifestyle/story/214998.html) (<http://www.business today.in/lbs-case-study/case-study-tesco-virtually-created-new-market-based-on-country-lifestyle/story/214998.html>) that wallpapered subway corridors with shoppable billboards. Busy commuters wander the "aisles" and order their groceries by scanning QR codes via a phone app while waiting for the train. Similarly, in 2012, Chinese e-commerce site YiHaoDian launched 1,000 virtual supermarkets that could only be seen with the YiHaoDian app. The destinations were tagged via GPS, guiding shoppers to augmented reality buildings where they could scan and shop. There's upside for retailers (they skip the cost of actually building, stocking, and staffing stores) and shoppers (no need to travel long distances to reach the big supermarket). After all, who says you need to squeeze a tomato to buy one?

But plenty of supermarket visionaries believe that the way forward isn't virtual—it's hyper-real. According to a recent survey by Cowen and Company, consumers care more about where food comes from—and what's in it—than how healthy it is. So innovators are developing ways to help supermarkets tell the story of the food they sell.



Shoppers choose produce (and ogle tech displays) at the Future Food District

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The Future Food District, created by Italian design firm Carlo Ratti Associati, displayed how technology and transparency can fuse together at the 2015 Milan Expo. “Our Pavilion at Expo 2015 was a real supermarket, where people could interact with— and buy—products,” said Carlo Ratti, founding partner of Carlo Ratti Associati and Director of the Senseable City Lab at MIT. Inside the pavilion, which was built to resemble a warehouse, over 1,500 food products were displayed on large interactive tables. As people browsed, stats on nutritional content, pesticides, and estimated carbon footprint were displayed on digital screens above. Shoppers at the Expo could use an app to receive product suggestions based on their diet preferences, while the market walls projected the latest shopping statistics like most-purchased items.

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“Storytelling means more knowledge. We were very inspired by a novella by Italian writer Italo Calvino, where the character Mr. Palomar enters a ‘fromagerie’ in Paris,” says Mr. Ratti. “Calvino writes: ‘Behind every cheese there is a pasture of a different green under a different sky.’ We hope that tomorrow’s supermarkets will make us feel a bit like Mr. Palomar—with every product able to talk to us.”

But that doesn’t mean supermarkets will be all about telling stories about food from far away. “The point of processing is moving closer to the point of delivery,” says Dr. Matthew Lange, Associate Director of the Knowledge Engineering Initiative for Wireless Health & Wellness at UC Davis. In other words, food won’t just be made local to the supermarket—it will be grown *inside* the market. From [countertop breweries \(https://www.picobrew.com/\)](https://www.picobrew.com/) to [3D food printers \(http://www.cnn.com/2014/11/06/tech/innovation/foodini-machine-print-food/\)](http://www.cnn.com/2014/11/06/tech/innovation/foodini-machine-print-food/), the story of our foods will become more transparent.

That goes for fruits and vegetables, too. Increasingly, hydroponic, aeroponic, and aquaponic urban farms are forming relationships with markets to provide customized produce. Some groceries even have their greens [grown right on the roof \(http://techcrunch.com/2014/11/10/built-in-brooklyn-gotham-greens-turns-rooftops-into-urban-farms/\)](http://techcrunch.com/2014/11/10/built-in-brooklyn-gotham-greens-turns-rooftops-into-urban-farms/).



Aeronomically grown greens enjoy the disco lights at AeroFarms

“You’re going to see more produce brands,” predicts BrightFarm CEO Paul Lightfoot. “Indoor farms will give supermarkets the chance to differentiate themselves.” By working with farms close by or connected to the market itself, supermarket produce managers—even in urban settings—can go directly to the farmer to ask for a spicier radish or more red leaves in the mixed greens. The highly controlled conditions of hydroponic and aquaponic farming—now rapidly on the rise in the U.S. with the potential to become a \$9 billion industry (<http://vegetablegrowersnews.com/article/indoor-agriculture-quickly-gaining-speed/>)—puts more power in the hands of farmers to create unique produce for grocers.

“We’ve had a loss of flavor,” explains Marc Oshima, Chief Marketing Officer and Co-Founder of AeroFarms (<http://aerofarms.com/>), as plants have been selected based on disease and pest resistance instead of taste and nutrient density. Indoor farming will drastically expand the biodiversity of produce found on grocery shelves. “In many ways, the consumer doesn’t even know what he or she is missing anymore.”

The interweaving of farms and supermarkets to the point of purchase will also reconnect consumers with their food in a whole new way.

“It’s going to be even more about community and the personal experience than it is now,” says Tre Musco, President and Chief Creative Officer of Tesser: Big Picture Branding, who investigated the future of grocery for the Food Marketing Institute. “Everyone’s talking about robot this and high-tech that, but it’s really about going in the other direction, more high-touch.”

As more and more food can be ordered online and shipped to us in boxes, supermarkets will become the new vinyl records—a place to, in Musco’s words, “Get back to what’s great about food, tasting things and the pleasure in making food and sharing food with friends and family. The grocery industry will reorient around that.” So hold onto your carts, or phones, or whatever we’ll be using in a few years—it’s time to go shopping.

Eve Turow's first book is A Taste of Generation Yum (<http://www.amazon.com/Taste-Generation-Yum-Millennial-Generations-ebook/dp/B00ZTEP87W>).

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