



# **New Technologies,** Tactics Make The **Store Of The Future** A Reality

Despite the rise of e-Commerce, online channels will only account for 6.7% of global retail sales by the end of 2015, according to [eMarketer](#). That means brick-and-mortar will make up approximately 93.3% of the predicted \$1.6 trillion in worldwide retail sales this year.

Although eMarketer's projections and several other studies have affirmed that brick-and-mortar is not dead or dying, it is experiencing a rebirth of sorts, fueled by consumers' constant connectivity to digital tools and information.

In order to remain in the long-term competitive mix, brick-and-mortar retailers must rethink the role and overall value of the store, and further integrate it into consumers' digital interactions. Some brands are creating their own versions of the **store of the future** by embracing virtual dressing rooms, kiosks, beacons, interactive displays and other digital technologies.

"There is more pressure to make the store a differentiated and emotionally compelling experience," said Laura Davis-Taylor, EVP of Customer

Experience at [MaxMedia](#). "Retailers are actively designing the store into what I call an 'experience ecosystem.'"

Currently, retailers are in a transitional period, retrofitting stores in order to acknowledge and support consumers' digital behaviors, according to Mark Sargent, Creative Director at [King Retail Solutions](#). Moving forward, retailers will integrate "a truly omnichannel approach into the design of the store experience at a more fundamental level — the store experience as an aggregator of all channels. But what will be retained in brick-and-mortar is what has always been its strength: Being able to see, touch, taste and smell the actual thing you want to wear, use or eat."

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## Technologies Impacting The Store Of The Future

There are a variety of new touch points at retailers' disposal, designed to create more memorable, interactive and personalized in-store shopping experiences. Some of the technologies shaking up the brick-and-mortar environment include **RFID**, **digital displays**, **beacons**, **mobile POS/clienteling**, **in-store analytics**, **3D printing** and **biometrics**.

### RFID

Although radio frequency identification (RFID) has been on retailers' radar for years, merchants that have implemented the technology are finally reporting a return on the investment.

"From the retailer perspective, RFID technology has proven its worth and with prices [for the technology] continuing to fall, there are already some large retailers planning on 100% implementation over the next three to five years," noted Ian Goldman, CEO of [Celerant](#). "This will bring tremendous strides in inventory management and customer service as every piece of inventory becomes instantly visible and trackable."

Take, for instance, how **Rebecca Minkoff** uses RFID in its New York City flagship. When a consumer walks into a fitting room with a piece of clothing, the RFID tag triggers an interactive touchscreen. The screen displays product images and recommendations, and allows the consumer to adjust room lighting and even call an associate for assistance.



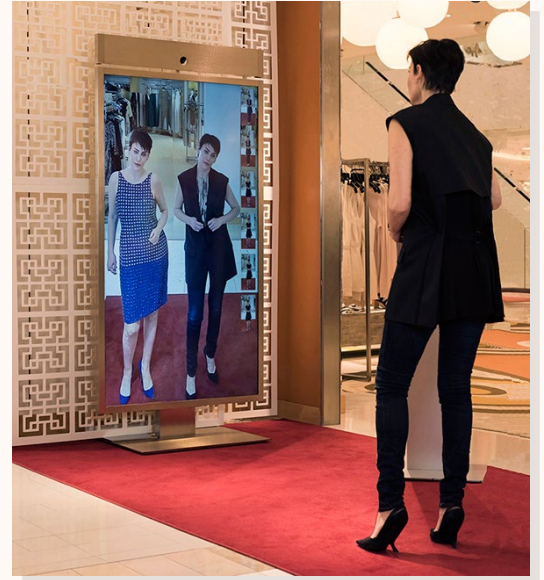
### Digital Displays

Depending on retailers' goals, digital displays are an effective medium to engage shoppers with timely and compelling content. These displays typically fall under one of three categories: One-way, interactive or personalized. **One-way displays** can vary from large screens to eye-level shelf signage, and can be programmed based on the store, audience demographic or time of day. These screens "are best for information, wayfinding and brand impact," Davis-Taylor noted. **Interactive displays**, however, "are all about engaging people to learn more, manage a product or make a purchase."

Digital displays also are evolving to become **personalized** and responsive. “It’s only a matter of time before all stores have some points of personalized content,” Davis-Taylor said. However, she noted that in order to receive these highly customized experiences, consumers must share data with brands and retailers.

**Neiman Marcus** has taken several, innovative approaches to digital signage technology. The retailer’s merchandising table is a 32-inch, high-definition touch screen that allows consumer to browse and filter merchandise, and receive relevant product recommendations. Consumers can then email product links to themselves for future review and purchase.

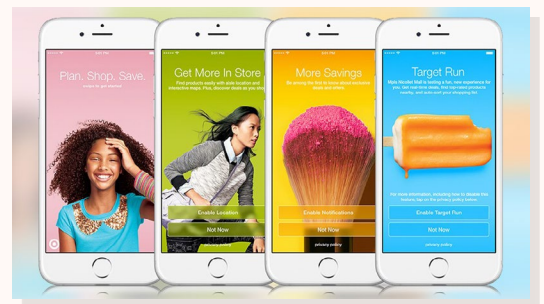
Neiman Marcus also has created a digital fitting room experience. Called MemoryMirror, the solution takes a video image of consumers, and then dresses them in a variety of outfits and product colors. MemoryMirror records all try-on sessions, so customers can review them at any time.



## Beacons

Up to 90% of U.S. consumers use their smartphones while shopping in stores, according to [SessionM research](#). Whether they’re comparing prices, researching products or accessing product reviews, consumers rely on their handheld devices to help make the right buying decisions. Retailers can engage with these mobile-toting consumers as they venture throughout the store using beacon technology. Although some may say beacons have limitations — consumers need to opt in and have the retailer app open to receive alerts — retailers like **Target** are [placing bets](#) on the technology.

“We like beacons first for behavioral analytics, but the shopper must be inside of an app to be tracked,” Davis-Taylor said. “It makes you rethink the role of a retail app, however, and how to dial up the value exchange to get people motivated to fire them up. I truly admire Target for being the first big retailer to get out there and publicly



laud their beacon test. Not only did they do everyone a service by being vocal and open about it, they also took the concerns on right up front. They stated clearly that they were testing beacons to make shopping easier and more fun; they were clear that there would be no more than two communications in each store visit and that the offers would be premium; they showed friendly, engaging examples of the how the communications would look on your phone — it was all there.”

## Mobile POS and Clienteling

Because mobile technology allows shoppers to access product information and prices in real time, sometimes the shopper is more knowledgeable than the store associate. Mobile POS and clienteling tools, however, are helping to “rewrite the rules for how associates engage customers in the store,” said Jerry Rightmer, EVP and Chief Product & Strategy Officer at [Starmount](#). “Mobile solutions can be a powerful catalyst for customer engagement, and retailers are just beginning to take advantage of the possibilities they create.”

**Apple** was one of the first retailers to successfully incorporate mobile POS into the store environment. Rather than confining associates to a designated checkout area, Apple enables them to roam freely, engage with customers and complete transactions any time and anywhere in the store.

**Nordstrom** also has armed associates with mobile devices, which helps improve customer service during busy times such as the holiday season. This strategy “provides more capacity to complete transactions without adding expensive cash wraps,” Goldman explained. “The store of the future should focus on being where the consumer is, the moment a purchase desire presents itself.”



## In-Store Analytics

Digital analytics tools have empowered retailers to more accurately measure the impact of their e-Commerce sites, and track consumers’ digital browsing and buying journeys. Now, in-store tracking and analytics tools are bringing this deep intelligence to the store.

“A decade or two ago, the store was always at the end of path-to-purchase,” noted Chetan Ghai, Chief Product Officer at [ShopperTrak](#). “Now that isn’t always the case: Sometimes the store is at the beginning or middle of the journey.”

Regardless of when a consumer decides to enter a retail location, in-store analytics can help merchants assess the overall impact of the store design and experience. In addition to measuring conversions, these tools can track traffic patterns and measure shopper-to-associate ratio to ensure labor is aligned with demand at different times during the day. Footwear retailer [Journeys](#) implemented in-store analytics for this very reason. After a successful pilot in 18 locations, Journeys installed ShopperTrak technology in all 1,170 stores to better align incoming traffic with daily sales results.

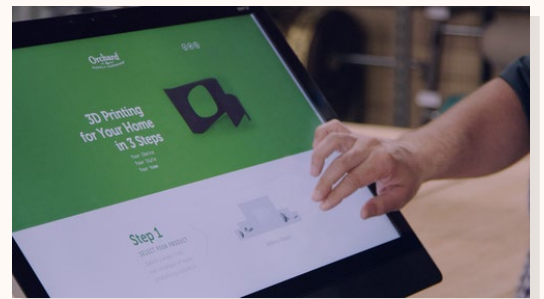
With in-store analytics, retailers also can identify repeat visitors and dwell time. These “experience metrics” are key, according to Ghai. “You can see whether shoppers are coming in and spending the appropriate amount of time in the store given the products and services you’re selling.”



## 3D Printing

The term 3D printing is defined by [MarketsandMarkets](#) as “the process of making objects from 3D model data by using additive materials.” By 2020, the 3D printing market is expected to reach \$8.43 billion, at a compound annual growth rate of more than 14%.

Retailers such as **Lowe’s** and **Normal** are embracing 3D printing technology in order to provide shoppers with highly customized products. Lowe’s Innovation Labs developed a 3D printing and scanning service that allows consumers to customize the color, shape and material of switch plates, address plates, door handles and cabinet knobs. Consumers also can scan accents in their own home to create a 3D model. Similarly, consumers can use the Normal mobile app to scan their ears and print custom-fitted ear buds.



## Biometric Technologies

Though still in its infancy in the retail realm, biometric technologies present a lot of exciting opportunities for merchants to create more personalized in-store experiences.

“What if, instead of having to show your phone to gain savings through popular coupon apps, you could simply use your fingerprint, voice or even face?” noted Amy Krueger McKeown, who is with the Marketing Development team for [3M](#)'s Commercial Security segment. “Stores of the future will use biometric technologies to combine the online and brick-and-mortar experiences to enable people to use a unique identifier to redeem coupons, check out or even find items they selected as ‘favorites’ online, in the physical store.”

However, the jury is still out regarding whether consumers will embrace this technology. Thus far, it doesn't look too promising: In a survey of 1,000 U.S. consumers, [RichRelevance](#) revealed that 75% of respondents found facial recognition technology to be “creepy.”



## Designing And Executing The Store Of The Future

The technologies outlined in this article merely scratch the surface of cutting-edge technologies that will continue to emerge in the retail industry. As a result, retailers have a plethora of potential investments to consider while building their stores of the future.

Before testing or rolling out new store concepts, retailers must first and foremost be sure they are remaining loyal to their target customers.

“To create the future, you must start with the people you are serving,” Davis-Taylor advised. “What is happening with them in this world today? What is happening culturally? What trends are happening that are (or could be) affecting them or creating some opportunity? Where do they have friction within your shopping experience? What should you fix it with and what could be digital?”

Then, determine how specific technologies can fuse together to align with customer behaviors and demands.

“Don’t just jump on the bandwagon of whatever sexy, new technology solution is unveiled in one retailer’s high-end flagship in Manhattan,” said Sarah Engel, SVP of Global Marketing at [DynamicAction](#). “Instead, as you design the store of the future, find ways to meld together your mobile, store and digital experiences into the singular, high-touch brand experience that your customers expect.”

In order to effectively roll out innovative store concepts, retailers should start by developing prototypes that showcase “where they want their experience to go, and then course correct based on initial testing,” said Peter Rivera, Chief Experience Officer at [Infusion](#). He provided the following tips and best practices for a successful rollout:

- **Set up an internal lab** or hire a partner that has the chops to bring a new vision to market reliably at scale.
- **Staff internal teams with grounded visionaries** who will drive the implementation and learn what works and does not work throughout the process.
- **Embrace experimentation at the executive level** and embrace the idea of controlled failure so that the organization is truly innovating and evolving.

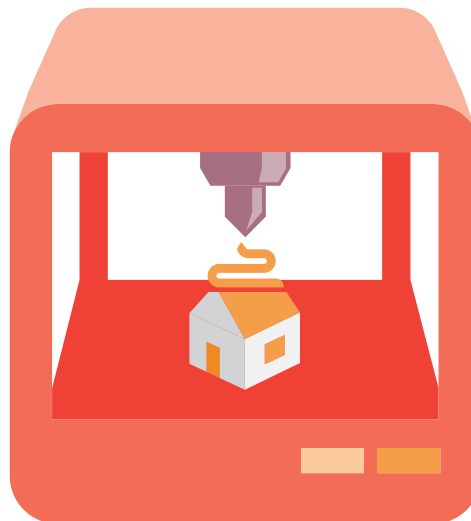
- **Work closely with the IT team and make the right investments** in technical infrastructure to deliver more personalized experiences to customers.

As retailers test and implement new technologies and store designs, they also must remain true to their brand values and heritage.

“It’s invaluable to understand your brand at its core,” noted Sargent of King Retail Solutions. “What is your promise to your customers? What sets you apart from your competition? It can be challenging at best, and typically quite daunting, to wade through the ocean of available new technologies and trends that may or may not be lasting. Once you’ve identified how you’re going to be of value to your shopper, then it’s much easier to take a look at your current operations and determine if implementing new technologies would drive your goals.”

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## Laying A Foundation For The Store Of The Future

By Randy Evins, Senior Principal of Industry Value Engineering for Food, Drug and Convenience, SAP

Technology and consumer behaviors are evolving faster than retailers can innovate. As a result, merchants are left scrambling to embrace the latest tools and strategies designed to improve the omnichannel retail experience.

In this Q&A, Randy Evins, Senior Principal of Industry Value Engineering for Food, Drug and Convenience at [SAP](#), shares his thoughts on the store of the future and how retailers can prioritize their investments.

**RTP: How do you believe digital commerce and technologies have impacted retailers' brick-and-mortar businesses?**

**Evins:** Most, if not all, retailers acknowledge that channel is irrelevant these days and that all commerce going forward will be "digitized." That is a direct result of the technological improvements below the surface, the smartphone being the pinnacle of that. The iPhone started the revolution, but it is improvements in the infrastructure, like the SAP HANA platform, that are fueling the capabilities brought forth with smart devices.

**RTP: How will consumer behaviors and the advent of omnichannel retailing change how brick-and-mortar stores are designed and executed?**

**Evins:** No one can really know what will happen, but at the least, we will see a need for the "click-and-collect" process to take place. You see it in Best Buy and some food retailers with pickup desks, so the customer who has ordered online can get in and out very quickly. In food, we may see concepts like brick-and-mortar stores with only fresh products out front. This gives the grocer the ability to spend precious labor resources on important customer-facing activities, like fresh food, and relegate the less important activities, like facing shelves, to the back room, where it can be run more like a warehouse. The ideas and creativity will be endless.



Randy Evins,  
Senior Principal of  
Industry Value Engineering  
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Convenience, SAP



**RTP: Are there any technologies you believe will play a starring role in the “store of the future”?**

**Evins:** In-memory processing is dramatically changing our world at SAP. We are building apps and concepts that we didn’t even dream of doing five years ago. The concept of “batch” is virtually gone and “real time” is the standard. That means retailers can truly move the customer to the center of the universe and hold themselves accountable for making decisions that negatively impact the customer experience.

**RTP: How can retailers successfully design and implement the right technology for their new store concepts?**

**Evins:** Leave the point solutions for last. Concentrate on the platform and infrastructure that will lay the foundation for the future. This new world is dynamically changing, and nimbleness is a requirement. Without a solid foundation, when the next new thing comes along,

it will be expensive and very intrusive to move from one thing to another. In the past, change was only a people problem; it’s now an enterprise problem.

**RTP: Do you have any final tips or best practices for retailers looking to invest further in their store experiences?**

**Evins:** Bring your CIO to the big table. He/She is no longer an order taker. That individual may bring ideas and concepts that you haven’t thought of yet. If you are waiting for your operational teams to figure things out, and then task IT to get them done, you are asking for failure.





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