Retail in 2030: AI, IoT, big data, and omnichannel as teenagers

By M Frazer   16 Jul 2019

Will technologies like artificial intelligence (AI) mean the end of human engagement and shopping in a physical retail store? Will we become completely dependent on Internet of Things (IoT) technology for shopping? Will we rely on a fridge to remind us of our shopping lists? Will we see robots shopping side-by-side with us in Checkers? Let's explore Retail 2030.

AI – the new customer

As AI technology matures, the more common it will be for consumers to have a virtual personal assistant and an ever-virtual personal shopper. Today you can train your own avatar, or ask Google's Alexa, to manage your diary. AI technology has the ability to help people free up time, giving routine tasks such as grocery shopping to Android. Regardless of these technologies, for the immediate future at least, shopping remains a social and even an entertaining activity that will not necessarily be completely replaced by technology.

However, retailers will find new shoppers among their customers in the future – artificial ones that have been created by a human to perform routine shopping tasks against set criteria. This new category of customer will lack the emotional intelligence and impulse levels of their human counterparts. Because of their connectedness to the internet, they will be able to source product information and compare prices and offerings effortlessly.

Retailers need to develop new capabilities today to market to tomorrow's AI shoppers. In-store promotions may well lose their effect: the AI shopper will shop within boundaries set by their human, and refrain from impulse buying. On the other hand, this creates an opportunity for retailers to differentiate themselves as AI-friendly, and to offer compatible technologies by allowing customers to connect their AI devices directly to the retailer's systems.

Suppliers should, for example, be linked to the retailer's systems to automate stock replenishment; and customers, in turn, should be linked to enable – for example – automated routine purchases, thereby creating a link from the supplier, through the retailer, to the end user.

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My fridge is smarter than a two-year-old

The development of the Internet of Things (IoT) expands human interdependence to interact, contribute, and collaborate with things such as their appliances, vehicles, and 'smart' homes. Objects can now be connected to a platform in the cloud to allow humans to automate processes to minimise their effort, use resources more effectively, save time, and increase security. You can now drive home, and your GPS location tells your home to start boiling the water for tea, while your fridge reminds your vehicle to stop at the corner shop for milk and sugar – all managed through one platform.

The IoT phenomenon provides the retailer with a great opportunity, in that they could develop a range of appliances that are connected to a platform hosted by the retailer and that the customer can manage through a mobile application. Setting up a smart home application linking to a specific retailer allows the retailer to tap into the data, and anticipate the routine purchases of their customers – and, using this technology, to service their customers better.

The extension of the product range into smart appliances and cloud-based applications to manage smart homes provides additional income and a stronger customer connection – all while increasing switching costs for the customer and raising the barrier to entry for competitors.

Big data frustrations grow into strong connections

Big data and data analytics have been the driving force behind AI technology development. AI technology (or machine learning) uses data to learn how to make decisions. For many years, retailers have been collecting data, but have done very little with the data, as the algorithms had limited capabilities. The main areas in which this data was used included product planning, buying, and sales forecasting. Today the data has deepened to an individual customer level, and retailers are capable of predicting their customers' next purchases.

Having this information does not necessarily guarantee success. The key is to ask the right questions at the right time. Retailers need to know what they want to obtain from the data (a clear goal), and should then extract the relevant information, analyse it, and interpret the findings and insights.

As consumers will continue being overstimulated by high levels of promotion and communication from players in the market, they will value communication that is targeted at their needs and shows deep personal insight, with the aim of building a deep relationship. The intention to create better store experiences should be clear, and should materialise when the customer engages with the retailer through whichever channel they choose, whether online or bricks-and-mortar.

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Customers are aware that their data has value, and they volunteer their information based on an expected return. Some expectations are in the form of monetary savings, and others relate to a better shopping experience. Customers feel that the retailer should use this information ethically and meaningfully to connect better with them as a shopper. When you have a deep connection with a customer, you do not require them to carry a loyalty card or provide proof of purchase when they return an item.

In the future, retailers may use fingerprint identification, facial recognition, or even the store application to identify their customers. Customers will choose retailers that show that they use their data to connect on a personal level. The human-personal approach will still play an essential role in forming this connection, and retailers that use technology to develop and deepen their relationships with their customers will thrive.

Omnichannel is the norm

AI will take omnichannel to its next phase, when the lines between channels will merge in such a way that retailers will no longer differentiate their channels: transactions will flow across them. For example: the customer's AI assistant may add milk to the online basket when the fridge indicates that the household is low on the item. Then, as the customer enters the store, the items in the online cart are prepared and finalised for collection, while other items are added to the customer's online account and paid for as they leave the store.

Omni-channel will therefore no longer be a strategy, but a business principle that AI will enhance and support. As omnichannel becomes the norm, retail employees will become data and knowledge workers who use information to build strong connections with their customers, and act as custodians of those relationships.

Routine tasks such as replenishing stock, warehousing, and logistics will be automated using robotics and self-driving vehicles. In-store technology such as cashier-less checkouts will need to be managed by skilled persons: as the technology evolves, so will fraud tactics, and retailers will have to continue putting mechanisms in place to limit shrinkage.

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Meaningful relationships remain key

In summary: regardless of the developments in technology, retailers' focus should remain on the customer, building deep relationships, winning at customer experience, and using technology to their advantage in these strategies. Acknowledging AI as a new customer segment or sub-segment will allow the retailer to target products and services better, while IoT will allow the retailer to offer new products and services.

The buzz around big data will be short-lived if it is not used correctly: it must help retailers to deepen relationships and to create better experiences for their customers in an era where the channel will no longer be either online or bricks-and-mortar, but a smooth transaction across the traditional lines of many channels.

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