

# **7 Key trends** shaping Retail in 2020

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# Introduction | Retail finding confidence with technology

Retailers have been under pressure for some years as digital has taken hold and forced them to undertake challenging transformations of their business models. But the industry has now

come to recognise that digital technologies are absolutely fundamental to their future success and this has gone hand in hand with a growing level of confidence.

Physical stores have been fighting to justify their place alongside a transcendent online channel but there has been a gradual reassessment of late that a much more complementary approach must be taken as consumers undertake increasingly fluid cross-channel shopping journeys.

This ebook looks at the 7 key trends set to shape retail in 2020 based on the presentations delivered, and the technologies showcased, at Retail's Big Show, organised by the [National Retail Federation](#) (NRF), in New York City. We highlight how retailers are today growing more comfortable with forging strategies across their channels and increasingly understand how to maximise the value of operating technology and stores in seamless unison.





# 01| Intertwine digital with the art of retailing

As in people's everyday lives, digital is now fully embedded within the retail sector and it impacts on all aspects of the industry. This was highlighted by Satya Nadella, CEO of **Microsoft**, who delivered a keynote at NRF: "Digital technology is becoming a core part of our lives, economies and society. It's embedded everywhere. Every hour 40 terabytes of data in retail is created and it shapes our entire economy. It provides the demand signals for the world."

But this vision is that the sector's success requires digital to be intertwined within the traditional aspects of the industry, which customers continue to value. "It's about bringing the front and back office together. To have the experience of retail as a premium – involving putting the art and the technology together," he says, adding that technology is not something that retailers should feel dependent on but should instead use it to help them build independence.

Kevin Johnson, CEO of **Starbucks**, agrees with this coming together of technology

and traditional retail skills around customer experience. He suggests modern day retail has two transformative elements - creating destinations in bricks and mortar and the connection of this to the digital experience.

To this end Starbucks is developing rich environments - such as its Roastery stores which are almost like coffee theme parks - and tying them up with technological initiatives such as its AI-powered initiative, Deep Brew, that it has created with Microsoft.

Among its many capabilities is calculating the specific inventory to order for each store, and predicting how many baristas are needed for every 30-minute period in the workforce schedule within each outlet. What all this ultimately delivers is a better experience for customers. "Through data we are finding new ways to enhance human connections," he suggests.



***"Technology is not something that retailers should feel dependent on but should instead use it to help them build independence".***

## 02| Demonstrate your sustainability strategy

There is no escaping the rise of sustainability up the business agenda and retailers have to be fully engaged with this area because failure to do so could be very damaging in the future. Managing such business change is not easy and requires perseverance.

This was evidenced by Heather Deeth, manager of ethical buying in the US for **Lush**, who reveals that the company's ethical supply chain requires a lot of work with many suppliers who have to share Lush's values. Its sustainable stance means it now buys 400 different raw materials from around the world. At the heart of this is its use of technology as a platform to deliver transparency across the supply chain.

"We have a relentless push on transparency. It's not enough to just sign things off, you need to get deeply involved. We try and source direct from origin where possible. If we remove the touch-points then there's more margin for us and for the suppliers," she says

There is no doubt that AI is increasingly contributing to retailers' capabilities in this area.

Lars Gunnarsson, digital transformation leader at **IKEA Food**, says the company is implementing a solution that uses AI to help with its forecasting and management of the supply chain that will assist with its overarching objective of reducing food waste.

"It's super exciting and we're currently putting the right data points in place for it. It will support our sustainability and drive less waste. It will be massive for us," he says, adding that the solution will enable the company to see the demand curve and coordinate deliveries of food, control portion numbers, and more intelligently manage the workforce based on demand. The supervisors will also receive notifications of waste levels on each shift.

Vertical farming company Infinite Acres is also beefing up its technology capabilities through a joint-venture with Ocado to help it better manage its farms through better use of water, removing the need for pesticides, and by growing the produce closer to the point of retail. This not only increases the shelf-life of the produce but also reduces the transportation requirements.

The drive for more sustainable business models has also led to some interesting new creations in retail such as re-commerce and the circular economy, which involves products being sold multiple times. Natasha Franck, CEO of digital identity platform **Eon Group**, is busy building a protocol that effectively creates an in-built identification for products (akin to a combined digital birth certificate and passport) that helps brands manage the goods they sell - from initial sale to subsequent resales.



**"Using AI to help with forecasting and management of the supply chain that will assist with our overarching objective of reducing food waste".**

## 03| Retool stores to leverage digital technology

Physical stores have been unsure of their place over the past few years as digital has taken precedence – on the back of its high growth. This has ultimately led to the closure of many outlets as sales levels within them have invariably fallen.

However, stores are enjoying something of a renaissance on the back of the recognition that they can play a significantly more important role in a retailer's overall ecosystem than simply being drivers of sales in the physical space.

This has been the case with US-based department store **Nordstrom** that has been on the expansion trail. Erik Nordstrom, co-president of Nordstrom, says: "There has been an acceleration in the way people buy online and pick-up in-store. There's been a significant step-change in this activity. The way we engage over different touch-points has changed."

He outlines how the historical business case for stores was based on the "four-wall performance" but that his company recognised there was a meaningful lift in online sales when new stores

opened within an area. "The interplay is so important. It's now part of the business case for the stores," he says.

Nordstrom suggests the department stores have become fulfilment centres as they can be leveraged for their proximity to customers. To help it with this objective it has been working with Attabotics and Microsoft to develop a micro-fulfilment capability.

By using 85% less space, compared with a regular warehouse, and tapping into the Microsoft platform for tracking the relevant data Nordstrom has been able to increase seven-fold the selection of goods for next day delivery at its Los Angeles and New York City stores. Such has been its success that it plans to roll it out to its other key markets.

Microsoft has also sought to use the ceiling-mounted cameras now fitted within many retailers' stores to feed the visuals into its Dynamics 365 'Connected Store' solution in order to deliver actionable insights through

simple communications like emails and a user-friendly dashboard. This can include monitoring queue abandonment and store occupancy levels where alerts are triggered according to rules set within defined zones within stores.



***"There has been an acceleration in the way people buy online and pick-up in-store".***



## 04| Stores an offline channel for discovery & growth

As technology plays an ever more important role in retail an interesting trend is emerging whereby stores are being used for pure discovery. The argument has been that online is somewhat deficient in delivering sales from browsing, in contrast to stores, which can potentially be playgrounds for browsing and discovering products that customers were unaware they needed or wanted.

Erik Nordstrom, co-president of Nordstrom, says: "The store is not just about transactions but about discovery of products. It's not about going into stores with a checklist. This is super important for us. Yes, it could all begin online but we want to make it seamless across the channels."

Bringing the art of discovery back into stores is undoubtedly contributing to online players' growing desire to open physical space. US-based co-retailing store **Showfields** is very much about bringing online-only brands to its exciting, frequently changing environment - initially in New York City.

Tal Zvi Nathanel, founder and CEO of Showfields, says: "Many things we do adhere to the traditional rules of retail - it's still all about discovery. This is what **Selfridges** did but some things have been lost in translation over the years. We've not invented anything new, we've just brought it back. The future will be discovery within retail."

A clever element of Showfields is its use of technology to attract the online-only brands to take physical space within its store by making the process painless for them. "Every brand needs a physical presence but it's hard to do. It does not necessarily fit their business models, it's expensive, how do you translate 2D to 3D, and the most challenging aspect is meeting the expectations of the new customers out there. All this deters brands going physical," he suggests.

So effective are the online tools and reports given to brands by Showfields to help them with these challenges that it can take a mere three-to-five weeks for them to open a space within

the company's outlet - without having even necessarily set foot in the store. "Technology enables our business. The physical store is an extension of a website. From a brand and consumer perspective it's an enabler," says Nathanel.

There are plans to open more locations following the first store's success, where the average visit time to the 14,000 sq ft store is a very impressive 33 minutes.



**"Technology enables our business. The physical store is an extension of a website".**

## 05| In-store devices to empower employees

Technology is proving increasingly important to the ongoing empowerment of in-store employees who are able to utilise ever more powerful and compact hand-held devices that can tap into rich data and insights. Such 'clienteling' has been enhanced through the improved capabilities of the hardware as well as the ability of retailers to use AI to drive actionable insights into the hands of their front-line employees.

Starbucks' AI-powered solution Deep Brew frees up its in-store baristas to concentrate on delivering a rich customer experience by empowering them with insights. Kevin Johnson, CEO of Starbucks, says: "Deep Brew will increasingly power our personalisation engine, optimise store labour allocations, and drive inventory management in our stores. We plan to leverage Deep Brew in ways that free up our partners so that they can spend more time connecting with customers."

Such empowerment is also part of the reasoning behind the decision of Ikea to implement an

AI-powered solution. Lars Gunnarsson, digital transformation leader at IKEA Food, says it will help in many ways including the forecasting and management of the supply chain and reduction of waste by supplying - via a simple user interface - rich information directly to the team to then act upon.

Part of the empowerment in this case is the simplicity it will bring to 1,000 people delivering 20,000 servings per day. "The challenge for the user interface in the food business is that many workers are on hourly rates. So it has to be super simple for them. The benefits it brings is efficiency that cuts wasted time and wasted food," he explains.

Empowering employees at scale is also important to Jonas Stillman, director of retail systems and omni-channel initiatives at [Office Depot](#), who says it has involved the roll-out of 10,000 hand-held mobile devices. This has massively reduced employees' involvement in non-value-added activities, thereby freeing them up to provide better service to customers.



***"AI drives actionable insights into the hands of front-line employees".***



## 05| In-store devices to empower employees

For instance, the devices give visibility of inventory and make the process of dealing with click & collect-type orders much easier.

Stillman says the new system has also resulted in a less than 1% failure rate for the delivery of orders and led to great excitement among employees. "It's alleviated the need for multiple devices and means just one device can be used across all aspects of the business. There are many benefits to this including greater efficiency, improved customer experience, and a more enjoyable culture in the company," he explains.

The Office Depot stores are now run very differently following the roll-out of the hardware and things will continue to change, according to Stillman, who says: "My team are focused on making the stores easy to run because employees should be spending more time with customers - selling them the right stuff. We're empowering people to make decisions and giving them the freedom from receiving any retribution when putting forward ideas. We now get lots of ideas from people across the business."



## 06| Managing inventory with AI

Among the most competitive of areas within retail technology involves the management of inventory, with a number of providers presenting varied solutions at NRF. Each relies on computer vision technology with algorithms then used to determine and manage stock levels on the shelf but how they go about collecting the images is different.

Among them is Pensa Systems that use drones to fly around stores taking video footage to make visual checks on the availability on-shelf. It is working with five major retailers in the US and Europe. The drones are complemented by a mobile phone app that gives employees the ability to undertake many intra-day scans using their phones' cameras, which when combined with the drone images provide a much richer picture of the inventory.

This competes with the robot-based solution from Bossanova that currently roams the aisles of 1,000 Walmart stores in the US and other deployments are on the way as retailers



***"technology gives 90% accuracy for on-shelf availability - compared with only 40-60% when the task is undertaken by people".***

recognise that vast amounts of sales are being lost to out-of-stocks.

Red McKay, global VP of sales at [Bossanova](#), says the technology gives 90% accuracy for on-shelf availability - compared with only 40-60% when the task is undertaken by people. "It can also check the visuals against the recorded inventory and find any mismatches," he says, adding that AI is used to learn the product labels.

New developments with the robots include the ability to read RFID and barcodes and a variable lens that allows images to be taken through glass doors on chiller cabinets. To further expand the capabilities of the solution McKay reveals the technology is to also be placed in other forms – which could lead to the launch of drones and much smaller robots for operating in compact stores.

Another player in this field is Israel-based Trigo that takes the video imagery from ceiling-



## 06| Managing inventory with AI

mounted cameras and runs it through its algorithms to map stores in 3D co-ordinates. This enables the management of inventory and out-of-stocks but this is not the key objective of the solution. Since it can track the movement of customers and products it has the capability to provide a cashier-free store solution similar to that of [Amazon Go](#).

Isaac Banon, business development manager, Trigo, says: "Lots of companies' [technology] follow people around stores and others use shelf management solutions. We do both and the

mapping of the stores enables us to operate in dense environments. This differentiates us from the others and requires complex algorithms."

[Tesco](#) is among the companies undertaking trials with Trigo (it has invested in the start-up) and has created a test site at its head office before it puts the technology into a regular store. "We're in a Tesco store but it's not open to the public. We're now in the testing phase with them," he explains. Also providing a frictionless checkout solution – that again uses cameras on the ceiling – is AWM

Smart Shelf, which is operational in 10 Giant Eagle stores. Steven Dabic, computer vision engineer at AWM Smart Shelf, says the typical requirement is for one camera per 50 sq ft, which is much more cost effective than the Amazon Go solution. When customers leave the store the goods they have placed in their basket will be charged to their account.





## 07| Attracting technologists to retail

As technology has become increasingly critical to the retail industry there has been a need to bring in the necessary expertise. To date this has been somewhat problematic because the Industry has not been particularly attractive to the most skilled of individuals. They have invariably chosen to work for the high profile, pure technology firms.

But things have noticeably changed recently as retailers are strategically putting technology at the heart of their operations and have been openly committing serious resources to achieve their aims.

This change has been very apparent to Mike McNamara, CIO, **Target** - which has been hiring many technologists. This included 1,000 in 2019 alone, and it will be a similar number brought in this year.

"The technology you create is obvious, unlike at deep technology companies. You can explain what you do to your mum and the appeal of the

projects is that they go out to the public. There are some phenomenal problems to solve at scale in retail," he explains.

It is a similar story with Starbucks where Kevin Johnson, CEO of Starbucks, says the company's creation of the Deep Brew initiative has made it more appealing to technology specialists – especially when the solution sits within a well conveyed and supported company vision.

"To find employees in engineering and computer science requires you to have a vision. With the vision around Deep Brew we can attract top talent. We want to be as good at AI as any technology company. And we have a massive reach - we've so many customers and so much data. It's about being a part of something big... and having an impact on people's lives," he suggests.



***"Retailers are strategically putting technology at the heart of their operations and have been openly committing serious resources to achieve their aims".***

# Generational shift in delivering Retail 2020



The fact that digital technology is finally finding its correct positioning in the retail industry, after much pain for many operators, comes partly as a result of a generational change in the individuals now holding the power and responsibility within the sector.

Many of these people with their senior positions have grown up with digital as part of their everyday lives and have no issue with it playing a fundamental role within the businesses that they now find themselves leading. The result is that the sector is arguably finding its feet and is now much more confident about the integration of stores and digital.

This is undoubtedly a contributing factor behind the sector now proving to be an increasingly attractive home for some of the smartest technology specialists and computer engineers around. Needless to say, this bodes extremely well for the future long-term health of the retail industry.

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