

ANALYSIS

AI technology is still be in its infancy, but some retailers are already realising its potential online and in-store, writes **Grace Bowden**

How AI tackles retail's

Artificial intelligence (AI) technology may sound like science-fiction-novel fodder, but it's fast becoming an attractive investment to retailers.

Ocado has invested in AI to prioritise and automatically reply to customer emails, while Amazon has launched a \$2.5m (£2m) competition to drive advances in the technology.

It's clear that AI has piqued the interest of retailers wanting to drive business growth.

But what is it and why is it attracting the attention of the likes of Asos, eBay (mobile app pictured, right), Shop Direct and Etsy?

AI can process 'big data' far more efficiently than humans and can recognise speech, images, text and patterns of online behaviour.

This technology can offer solutions to some of retail's longest-standing issues, says head of retail at technology giant IBM, Danny Bagge. "The business model of retail is all about exceptional customer service delivered at scale and cost-effectively," he explains.

"[AI] can solve some of the previously unsolvable problems in retail, which is why it is starting to pick up so much interest."

Smart personalisation

Last month, Shop Direct boss Alex Baldock told *Retail Week* the online retailer would "double down" on its investment in AI. The retailer is using IBM's AI system Watson to deliver further personalisation for its shoppers.

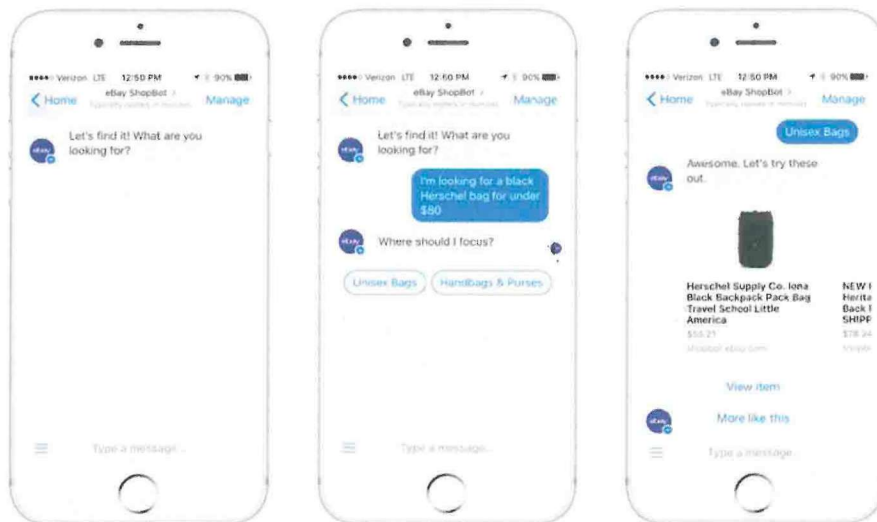
One headline-grabbing use of AI that Shop Direct plans to roll out is chatbots – computer programs that can engage in intelligent conversation. Chatbots can answer customer queries, from tracking an order to providing product recommendations, and are already used by the likes of eBay and H&M.

"The great benefit of chatbots to retailers is that they work across all digital channels – social through Facebook messenger, website or app," says chief of client strategy at mobile marketing agency Somo, Emma Crowe.

"Wherever the consumer is, there is a touchpoint that a chatbot can be useful for, from empowering customer service, to simplifying purchases, to acting more as a personal assistant."

Shop Direct's customer management director Jennifer Day says it is developing chatbots in response to the rising popularity of messenger apps among its younger shoppers.

"We recognise that customers are doing business with us through a mobile device and require service with much more immediacy now," she adds.



"Younger shoppers aren't using email any more – they're communicating via chat, so there's an argument that we have to constantly keep up."

However, she insists that the value of AI technology to the retailer is more wide-reaching than conversational commerce alone.

"Repurchasing models we've built in recent times have allowed us to predict when a customer is about to run out of a perishable product," Day explains.

She adds that Shop Direct has started using AI technology to track when a customer is going to need to purchase a new Yankee Candle based on their rate of usage.

"The way AI is manifesting itself is in creating a much more relevant experience for our shopper – more relevant in terms of the timing of our communications, but also in terms of the content and the way that we communicate with her," says Day.

Bringing AI in-store

AI seems like an obvious fit for online retail, from its ability to analyse data to its potential in communicating remotely with shoppers in a conversational manner.

But, does this technology have equally compelling implications for bricks-and-mortar retail?

Crowe thinks so: "Apart from stock control and merchandising, AI can bring a much more personalised experience to the shopper in a bricks-and-mortar experience, from informing and guiding the customer to what they need or like to ease of purchase and delivery of items."

One retailer that has thrown its weight behind bringing AI technology into shops is

US department store Macy's, which has partnered with IBM Watson on a trial of the technology across 10 of its outlets.

Entitled 'Macy's on Call', the initiative allows shoppers to type questions into a mobile app regarding the location or availability of products in-store and receive an answer generated by AI.

But Bagge says this is just the beginning of what Watson's AI platform can do for a shopper in-store.

More recently trialled technology has allowed one of the supplier's partners to take photos of products and get a list of similar-looking items based on colour, fabric and texture that are also available in its stores.

"A retailer cannot do that at scale in-store, and the only way of doing it before was with a very helpful store assistant," Bagge explains.

"Watson is now that store assistant, but at a huge scale that can look across every product available in seconds and come up with the right answer for the shopper."

As well as personalising the bricks-and-mortar shopping experience, AI and machine-learning technology can be used to drive sales of particular products.

In-store staff can use iPads equipped with AI technology and will be prompted with questions to ask the shopper in order to find out what kind of product they need.

According to Bagge, machine-learning technology can reduce the number of questions that a store assistant needs to ask a shopper from 10 to two. "It goes back to the old-fashioned retailer promise of really knowing a product, which is what we go to certain retailers for," he says.

For more in-depth analysis, go to Retail-week.com/Analysis



'unsolvable problems'



Operational efficiency

To date, the bulk of retailers that have invested in AI technology have used it to drive their customer service propositions.

However, Day says Shop Direct has found that AI also had wider benefits for its technology team.

"We have much more rewarding roles for colleagues within the organisation where they're doing things that are really stretching their capability and their intellect, and relying on machines to do things that historically we'd have to manually process," she says.

"It's freeing us up to do some really exciting stuff."

Brian Kalms, partner of business management consultancy Elixirr, says early adopters of AI technology will prioritise "efficiencies by automating previously manual tasks, such as using bots to provide information to staff and customers that previously involved human searching and responding".

As well as allowing retail staff to move away from manual processes, Crowe says AI technology has implications for "the whole retail value chain, from production through to stock control".

One of the operational areas that AI technology could disrupt is merchandising, as retailers use data analysis and machine-learning to get the right stock into the right channels faster.

"AI technology can now crunch information and create your channel strategy, your assortment planning and what products you put in what channels with what quantities, and then get your merchandisers to sign it off – before, merchandisers had to do all of that," says Bagge.

AI can also be used at the design stage. Bagge says that IBM Watson is currently being used by a British designer to develop his new range in order "to turn the design time from months to weeks".

The technology can process information on past collections and determine sales patterns based on criteria such as colour, size and price point. This can help brands and retailers to make more commercial design decisions.

"This is really big in retail because Burberry and other retailers are going from very long production cycles into very real-time, social-trending products. These are the types of technology you absolutely need to do that," says Bagge.

It's early days for AI, but the sky's the limit for the impact it could have on retail in the coming years, from product design to distribution, right through to customer service.