AI systems are prepared to learn - but are we ready to teach them?

By Jonathan McCabe   25 Apr 2019

Artificial intelligence could transform retail beyond recognition - but only if teaching is part of the rollout strategy. Today's retailers touch base with their customers well beyond their physical stores. No longer confined to malls and Main Street, they need to meet them wherever they live, work, and play in the integrated marketplace: in their homes, in their workplaces, in their cars, and in their hands.

Image source: Gallo/Getty

Garbage in: garbage out

This explosion in connected devices and customer connections is creating huge volumes of digital "exhaust" that retailers can analyse for buying trends, consumer desires, and patterns of behaviour. But to harness it effectively they need a new breed of AI system – one that can identify and extract the signals that are meaningful from those that are just noise.

But to see AI systems as the one-stop-shop solution for successful analytics would be misguided. Before organisations can extract and exploit insights, they need to 'teach' their system using high-quality data. Low-quality data means the AI system produces distorted, inaccurate results that risk harming the business – instead of helping it. So retailers have everything to gain from putting their datasets through rigorous vetting and cleansing processes before they're deployed.

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Go small, and set homework

Knowing where to roll out the AI system is also critical to the education process: ask it to manage multiple disciplines at once, and you lose your focus. The most successful implementers identify a specific business pain-point – it could be

customer- or employee-facing – and train an AI system to address it.

Online groceries retailer Ocado, for example, had to find a way to process customer queries rapidly and effectively – even when there is a sudden deluge – and keep its customers happy. So it introduced [advanced AI software](#) that categorises customer emails and provides customer service representatives with summaries and priority tags.

But first, Ocado did the groundwork. Before implementation, it put the system through an extensive "training program" where it learned from millions of past messages to ensure its email vetting processes were accurate. The result? The system successfully processes thousands of customer emails every day.

Learning on the job

AI systems are not just being deployed by exclusively online retailers like Ocado, however. Target and Walmart, for instance, have both been experimenting with aisle-roaming robots that learn "on the job". These autonomous units move through stores scanning barcodes to identify misplaced or out-of-stock items.

In South Africa, companies are testing AI solutions to assist consumers. Major banking institution and telecommunications company, for example, have been experimenting with an aisle-roaming robot that learns "on the job": Pepper. This autonomous unit moves through these companies and uses artificial intelligence (AI), to provide clients with basic information around products and services.

The AI that drives the robots learns to become more efficient over time, which means productivity rates will climb further still.

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Create star students

Retailers that commit to training their AI systems for specific tasks gain a competitive edge. And, critically, because retail tends to use a number of fragmented, disparate systems, the sector is well-suited for optimisation by fully trained AI.

From automating back office processes to inventory and fulfillment systems and the supply chain, AI has the potential to transform retail.

Just like students without teachers, however, AI systems without any initial instruction lack direction, and the retail industry gets less back. But put in the time at the beginning, give the systems the right material, and teach them to identify what is

truly valuable, and the sector has much to gain.

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