



DISRUPTIVE TECHNOLOGIES BRIEFING

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Businesses Adopt AI

Artificial intelligence (AI) is quickly moving from being debated in theory to being implemented by businesses—and we're not just talking about tech companies. McDonald's recently purchased an AI company to suggest what you might like to order in addition to a Big Mac. Likewise, Food Lion and its related grocery stores are using AI to help order food from suppliers. And Mark Cuban told Recode why it's imperative for businesses to get up to speed on AI. Hint: It's going to be bigger than the Internet. Let's take a look:

(1) *AI with that hamburger?* McDonald's is [acquiring](#) Dynamic Yield for more than \$300 million to create a more personalized experience for customers. The AI company's technology will be brought to 1,000 McDonald's locations in the next three months, and to the company's remaining US and international restaurants over time.

The goal is to increase sales by using data about the environment and customers to determine which items to highlight on the mobile app, at the drive-thru, and at self-service kiosks. "Dynamic Yield can allow McDonald's to take action based on information like popular items, weather, time of day, and other demand trends by using algorithms and other AI capabilities. ... The restaurant could even eventually recognize consumers' license plates and consider their purchase histories for a more personalized experience," a 3/28 Business Insider [article](#) reported.

After an order is taken, the program can suggest additional items in which a customer might be interested. The AI program can also help improve operations. For example, if the drive-thru is moving slowly, the menu can prioritize simple items to serve to speed up the line. Conversely, if the line is running smoothly, it can suggest more complex items. Dynamic Yield, which counts IKEA, Forever 21, and Fendi as customers, will continue to operate independently.

(2) *AI does the ordering.* Food Lion and its five related US grocery chains will use AI when ordering food from suppliers. The retailers, which are owned by Dutch company Koninklijke Ahold Delhaize, believe the system will "improve how buyers predict demand and get perishables and other products to store shelves faster," a 3/27 *WSJ* [article](#) explained.

Buyers using the software can order for all six of the US grocery store brands at once. Brands include Stop & Shop, Giant Food, and Food Lion. Tests showed the system improved inventory precision and reduced the amount of extra stock kept on hand. Food moved through the distribution centers faster, reducing the amount of food that needed to be sent out to stores for quick sale because it was nearing the end of its shelf life.

"The technology incorporates functions that had been spread across multiple systems and automates some steps, such as checking inventory levels at stores and distribution centers, that can take workers several hours to perform. Algorithms update recommended order quantities daily,

factoring in variables if product gets refused at the warehouse” or weather, the *WSJ* piece added.

(3) *Sometimes AI is evil*. The ability to use algorithms and AI to micro-target customers also has its downsides. The Department of Housing and Urban Development (HUD) accused Facebook of violating the Fair Housing Act by restricting who saw housing-related ads. HUD also asked for more information from Alphabet, Twitter, and others about their ad systems.

HUD claims Facebook allowed ad buyers to exclude people who fit into hundreds of thousands of categories—a high-tech twist on redlining. For example, ad buyers could exclude those who expressed interest in an assistance dog, mobility scooters, or deaf culture, a 3/28 *WSJ* [article](#) reported. Those interested in Puerto Rico Islanders, Hijab Fashion, and Hispanic Culture could also be excluded.

Proving liability might be difficult, the *WSJ* noted, because laws enacted in the 1990s give online platforms immunity from liability for the actions of their users.

(4) *Mark Cuban: AI will be big*. In a 3/12 Recode [podcast](#), Mark Cuban was extremely excited about the future of AI and Alexa/Google Home. First on AI, Cuban gushed: “As big as PCs were an impact, as big as the internet was, AI is just going to dwarf it. And if you don’t understand it, you’re going to fall behind. Particularly if you run a business. I mean, I get it on Amazon and Microsoft and Google, and I run their tutorials. If you go in my bathroom, there’s a book *Machine Learning for Idiots*. Whenever I get a break, I’m reading it. Seriously, you have to know it.”

There will inevitably be downsides, he warned. First, if the code used to design AI is in a black box, people won’t understand it and won’t know if it’s doing its job. Second, AI’s reliance on heaps of data gives large businesses and China an advantage. Large businesses have more data and more resources to learn how to use AI than do small businesses.

And China, as we’ve warned before, will have an advantage because it has tons of data and no government restrictions on privacy. “If you connect data with ever-improving processors, with ever-increasing speeds of 5G and other communication mechanisms, then there’s unlimited things that can go wrong. We’ll just have to be more vigilant,” he said.

Cuban was less worried about AI causing the disappearance of jobs, because new jobs will be created. The increasing use of robotics will mean that manufacturing will return to the US from Asia, requiring the hiring of people to maintain, manage, and monitor the robots.

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