Executive Insights

Artificial Intelligence Arrives — For Retailers, the Time to Adopt and Disrupt Is Now

After years of anticipation and hype, artificial intelligence (AI) is no longer just a prospect — we are in the early days of a disruptive megatrend that will transform multiple industries. Retailing is already starting to feel its impact.

Retailers trying to evaluate the coming sea change and formulate their strategies should understand that AI is much more than just another wave of software enhancement. The retail industry will feel the effects of AI throughout the value chain, from supply and logistics to merchandising, marketing and the consumer experience.

Given that disruption is already beginning, some form of exploration and adoption is advisable. But retailers should not neglect proper planning. A systematic approach is called for. Retailers should understand the ways in which AI is evolving, and the specific effects it will have on different parts of the retail operation. They should carefully consider what aspects of their operations will benefit the most, and when to move forward with each part of the deployment.

Enterprises are already — heavily — committed to AI

Across multiple industries, AI adoption is proceeding:

- Seventy-five percent of enterprise applications will be using AI by 2021[1]

- On a global basis, the AI spend by major industries will reach $78 billion by 2021[2]

- Ninety percent of executives from "pioneering, innovative organizations" already have AI strategies in place[3]

AI essentials for business leaders

AI is not just another IT project to be approached tactically. To understand the full strategic impact of AI, keep these five key factors in mind:

- **AI is rapidly becoming "human."** It uses cognitive technologies such as machine learning, natural language processing, speech recognition and computer vision. It's evolving rapidly to the point where it can emulate human capabilities such as learning, communicating and perceiving.

- **AI can learn, predict and optimize — which means it can transform processes along the value chain.** It can learn from historical and current data and use what it learns to optimize operations in real time, predict failures and events, and automate and augment human capabilities.

- **AI can give customers more value** by offering predictive and prescriptive solutions and taking what it knows about how customers engage with products and services to make recommendations — or develop new offerings.

- **AI can transform everything.** Almost all workflows will feel the impact of AI-based innovations over the very long term.

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- **AI is moving forward — but many people and organizations aren't.** AI is growing faster than Moore's Law.[4] But organizations aren't keeping pace. While many companies see the value of AI, adoption faces major barriers: employees that lack the right skills, talent shortages, IT infrastructure that doesn't measure up, organizations and governance that aren't aligned, and unclear strategies for commercialization and adoption.

A successful AI strategy starts by addressing issues and opportunities within the organization.

AI will reshape the way your organization works

AI will reshape work — but not all of it, and not all at once. How — and when — AI can streamline workflows or reduce headcount depends on the nature of the task. Some tasks can be automated more easily than others. Some jobs will be eliminated by AI — but others will be enhanced.

- **Structured, standardized, repeatable tasks are the easiest to automate.** When a job is rule-based, the rules can be translated directly into algorithms and scripts. In retail, this means the work done by cashiers, sales staff, warehouse staff, customer service agents and an increasing number of other back-office functions — all will be augmented or replaced by AI.

- **In all, it is estimated that 20-40%** of current office jobs and tasks can potentially be automated by AI.

- **Creative tasks, and tasks that demand emotional intelligence, are much harder to automate. A number of these will continue to be owned by people in the intermediate term.** Creativity means thinking outside the box, and that's harder to program. Emotional intelligence demands a holistic understanding of individual and group psychology. Tasks that demand that kind of understanding will fall to people for the foreseeable future.

   AI won't replace creative workers any time soon. But it will transform the way they work. AI-based decision support will be at the heart of most businesses and professions — including retail.

When AI is deployed in the right way against the right set of retail tasks, it will generate three main advantages. Some retailers are already reaping the benefits.

In retail, as in other industries, the right way to deploy AI is to automate routine tasks, while using it to support creative tasks. For retail specifically, there are already three areas where significant progress is being made: reduced cost-to-serve, more effective merchandising and promotion, and a better, richer customer experience.

- **Lower cost-to-serve:** AI-driven workforce models will help optimize staffing. AI can analyze factors such as right-sizing support based on foot traffic or sales.

   Lush employs workforce management solutions that use predictive scheduling to forecast employee demand. AI will also optimize — and prevent breakdowns in — the supply chain to help optimize delivery. Some emerging market models already rely on AI route planning, scheduling and tracking to support home delivery.

- **More effective merchandising and promotion:** AI is increasingly capable of driving targeting decisions across marketing functions and is increasingly helpful in merchandising planning. It also helps segment customers, generate content and plan and execute ad targeting.

   We have seen various companies experiment with natural language processing and analysis of online shopping habits and appended data to segment audiences and target ads across multiple channels. For example, *Zulily* uses machine learning to analyze customer preference data and create personalized advertising and marketing outreach.

   And AI-driven merchandising means better online product representation by scanning the web and finding portfolio gaps and inefficiencies.

   Walmart uses AI to scan other online retailers and find product gaps. Over time, Walmart aspires to expand a program in which robots scan its own shelves to find items that need to be restocked and products that need to be changed.

- **A better, richer customer experience:** The ultimate payoff of AI is in the store itself — store associates can use AI-infused mobile devices to leverage insights, answer questions and make recommendations, driving higher conversion rates and average order values.

   Nordstrom's sales associates leverage data about similar customers to provide personalized in-store recommendations. Longer-term, AI will reduce the need for in-store labor by coupling AI assistants with augmented-reality tools on customers' own devices.

But these advantages aren't the whole story; AI will also be disruptive

All these advantages sound promising for retailers. The challenge, and the disruption, start with margins. Because margins are so thin in retail, cost or customer-facing advantages can be winner-take-all.

For example, if AI can help customers find what they want more efficiently online, the industry's traditional browse-and-find model

is disrupted. Instead, the AI becomes the consumer's shopping buddy and prompts higher conversion at lower cost by suggesting products more likely to resonate.

Systematic steps toward AI adoption

Because retailers will feel the impact of AI on the business level, they need to plan for it as an aspect of business strategy that will result in the probable transformation of the business model. Business model considerations come first. AI isn't an end in itself — it's a means for unlocking strategic value. Keep in mind that:

- Economic laws haven't changed — all technology, including AI, should be focused on business fundamentals such as growth, margins and shareholder value, or broader corporate goals such as enhanced customer experience.

- Strategy comes first. AI should enable your strategic choices, not the other way around.

- The strategy must start with user needs and a strong ROI case.

- Changing technology is easier than changing people, but to succeed, you will have to do both. To get your people to work and behave differently will take time and focused effort. Technology is always ahead of the organization's ability to absorb it.

An AI implementation roadmap

Success at AI implementation will ultimately depend on the quality of your strategic planning — and the right answers will be highly specific to your business. But to get started, consider these steps. They're designed to help you frame and systematize your approach:

- **Set your baseline.** Interrogate each cluster of capabilities in your existing work processes to determine if it is susceptible to improvement with AI. As a start, you will need to identify your workers' key activities, and determine where they fit against the three critical questions: Are they standard/repeatable? Do they demand creativity? Do they require emotional intelligence? This is just a first step, though, as this

lens merely looks at your existing business process without re-thinking what is possible in a new AI-driven process.

- **Don't let technology lead the process — focus on the use case.** Give highest priority to the AI opportunities that address the most critical customer needs. Focus on the solutions that solve pain points, create great customer experiences or radically improve important workflows. Early prioritization will not only ensure that more progress is made sooner, but will also help build confidence that AI can be feathered into your organization in an effective way.

- **Make sure your timelines are realistic.** Moonshot use cases should get lower priority than the ones that are more practical and drive near-term growth.

- **Create a scorecard.** Highest score goes to the AI initiatives that:

  - Produce the best customer solutions

  - Are the most feasible to build

  - Rate highest in both hard benefits (such as cost reduction and revenue growth) and soft benefits (such as higher service quality and customer satisfaction)

Seize the AI moment

Once you've begun to deploy AI in a significant way, your business won't look or function the way it does today. That's the main point to keep in mind — AI will be transformative, and it's best to approach it that way. Organizations that grasp this — that treat it as a strategic issue that will change the commercial model, rather than a technology issue that will simply make the existing model more efficient — will be best poised to capitalize on the disruptive wave that will surge across the retail landscape.

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[1]Source: IDC, Gartner, MIT Sloan Management Review, Harvard Business Review, L.E.K. research and analysis.

[2]ibid.

[3]ibid.

[4]https://www.computerweekly.com/news/252475371/Stanford-University-finds-that-AI-is-outpacing-Moores-Law.

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