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AI in Retail

Here's How Retailers and e-Commerce Platforms Embrace Generative AI

A look at how major retailers, e-commerce giants and other players have started capitalising on the potential of Generative AI to deliver customer satisfaction and achieve more engagement

By Mannu Mathew



ChatGPT by OpenAI took the world by storm when it was launched in November 2022. It became an instant hit due to its ability to use artificial intelligence to make human-like conversations on a wide variety of topics. ChatGPT is a Generative AI (GenAI) tool, which catalyses the text-generating capacity of the AI-based Large Language Models (LLM).

According to Adam Conner, Vice President for Technology Policy at the Centre for American Progress, the reason for ChatGPT's popularity is that it is the first AI technology that was made accessible and understandable to the general public.

However, much has changed since the advent of ChatGPT less than a year ago. Dozens of

competitors including major tech giants like Microsoft and Alphabet and different countries like China and India tried their hands at building their versions of the tool.

This resulted in other tools based on the same technology being launched like GPT-4, AlphaCode, GitHub, CopilotBard, Cohere Generate, and DALL-E 2. Like ChatGPT, these help generate texts, images, speech, 3D models, videos and much more—the branch of AI known as generative artificial intelligence or GenAI.

ChatGPT also brought to power and potential of GenAI to the fore.

In no time, GenAI tools became the go-to technology for many industries including manufacturing, retail, IT and media, as it delivers high productivity within minimal time.

GenAI In Retail

The retail and e-commerce industry has always capitalised on all technologies in the market. Whether it be integrating social media platforms for marketing, introducing chatbots or self-checkout facilities in the stores, the industry keeps up with the latest in tech.

Today, multinational retail corporations and e-commerce companies have started embracing GenAI. These firms believe that people and technology together deliver the purpose of saving money and working efficiently.

Experts highlight that by leveraging GenAI, companies can reduce excess inventory, prevent overstocking, and enhance their supply chain responsiveness. In addition, when coupled with machine learning (ML) algorithms,

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GenAI can show optimal reorder points, safety stock levels, and replenishment schedules based on annual patterns, market insights and supplier performance.

Industry Use Cases

One of the key uses of GenAI in retail and e-commerce is the insight it provides into customer journeys. Online stores extensively use the technology to observe customer entry and exit patterns, along with the activities performed in the interim.

This is because GenAI can help isolate individual patterns of millions of users accessing an online store, and create recommendations based on the customer's preferences to enhance customer satisfaction and engagement. With its superior computation capabilities, GenAI can even categorise similar-looking patterns into collective brand personas to initiate aggregated actions for a large group of customers.

The other area is to improve the search capabilities offered by an e-commerce player. "We

are looking at how GenAI and conversational search can be incorporated into our search experience and are working with partners like Google to ensure that we are in an optimal position when it comes to search," said **Tulia Plumettaz, Director of Machine Learning at Wayfair**, an American homewares e-commerce company operating in the U.S., Germany, Canada, and the U.K.

Plumettaz said the company

has been using GenAI since 2019 to extract customer feedback and moderate reviews.

Wayfair is exploring adoption of GenAI in:

- › Customer sales & service
- › Coding assistance
- › Copy generation

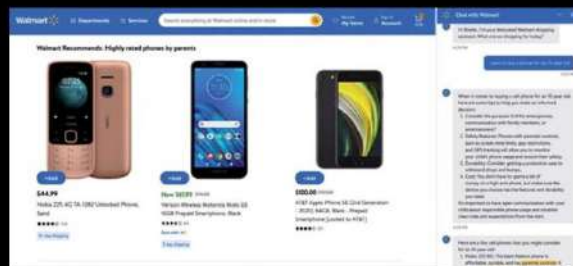
The company believes that GenAI can greatly impact customer experience. For example, Gen AI



How Walmart Uses GenAI

Multinational retail corporation, Walmart has fully started embracing GenAI according to a social media post shared in August 2023 by Donna Morris, Executive Vice President and Chief People Officer.

Walmart operates a GenAI-powered feature called 'My Assistant' for its employees in the U.S. The feature can change how associates work and solve problems and is intended to get rid of monotonous, repetitive task that allows more time for working on customer experience.



Features Of The New Assistant

- › Interactive conversational experience
- › Personalised product suggestions
- › Detailed information about products
- › Specific queries through the search bar

In times to come, Walmart plans to extend 'My Assistant' to international corporate employees in countries such as Canada, Mexico, and Central America.

The retailer has also started testing GenAI to improve customer service by improving the way customers discover and see products. As per media reports, there are three shopping-related GenAI-based features in the pipeline at Walmart. These include a shopping assistant, generative AI-powered search and an interior design feature.

With the features in the pipeline, Walmart aims at blending Augmented Reality (AR) with the GenAI that would be used in the interior design feature where customers just need to upload pictures of their room and ask chatbots for advice

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can be used to better understand what customers are looking for and create product content accordingly.

Thanks to its potential, GenAI is now being paired with smart connected devices. Bengaluru-based smart devices company Upliance.ai founded by IIT Bombay Alumni, Mohit Sharma and Mahek Mody has been using GenAI in its smart connected device called DelishUp: AI Cooking Assistant.

Upliance.ai uses GenAI to answer questions about ingredients that users may have while cooking. It can also be used to generate recipes in different ways. In both cases, the use of GenAI has resulted in faster resolution of queries and higher engagement.

Furthermore, GenAI can be used to transform retail store operations by automating critical processes and allowing employees to focus on high-value tasks. According to Anurag Sanghai, Principal Solutions Architect at Intellicus Technologies, GenAI can play a



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– Mohit Sharma, Co-founder & CTO, upliance.ai

significant role in transportation and routing optimisation within supply chain management.

Intellicus is a data analytics and business intelligence product company. Sanghai says that businesses often find themselves in a race against time while trying to absorb innovations.

The Visual Component

The ability to produce imagery is one of the most exciting features of GenAI. Companies especially, online stores, use this the most.

Wayfair, for instance, launched a new website this year by the name of Decorify piloting the GenAI model to create shoppable, photorealistic images. Customers can envision their own homes in a new style by uploading a picture of their spaces, and the rest is done by the system to show new décor styles.

Customers can browse various room designs and products and



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make purchases from Wayfair with embedded links, directly from the application.

Recently, e-commerce giant Amazon too announced using this technology, albeit in a different way. The marketplace said on its blog that it has rolled out an AI-powered image generator to help advertisers deliver a better ad experience for customers.

The rollout of the new GenAI from Amazon is aimed at creating more engaging ads and driving

What GenAI Offers E-commerce And Retailers

- › Generation of product description
- › Creation of images and ads
- › Customer support
- › Inventory and supply chain management
- › Preventing cyberthreats
- › New product design

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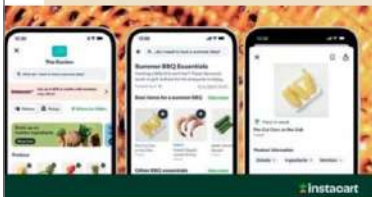
ChatGPT Is Still Popular

When ChatGPT was launched in 2022, it came as an internet revolution. The tech was used by companies to get responses within no time. But, as the competition got to new levels, ChatGPT eventually started losing its charm.

Similarweb, a web analytics and insight data aggregator has reported a 9.7 per cent drop in traffic in June. This was particularly attributed to the increasing competition from competitors like Bard, Google Gemini and many more in the market.

Whether ChatGPT is still a major tech disruptor is undecided, but companies have started leveraging the benefits of the same.

Instacart, an American delivery company for grocery delivery and pickup services across the US and Canada has rolled out a new OpenAI-based feature called "Ask Instacart" by leveraging the language understanding capabilities of ChatGPT and its own AI models.



It uses catalogue data that spans more than a billion shoppable items across more than 80,000 retail partner locations to help customers answer queries related to grocery shopping and food such as 'What's for dinner?'; 'What's the best fish to cook?'; 'What should I make for a Memorial Day BBQ?'. The AI assistant responds with personalised recommendations throughout the shopping experience.

However, while ChatGPT has promising uses, there are security risks such as phishing to consider when using ChatGPT for automated customer service. Experts feel that when used responsibly, ChatGPT can offer great benefits and it would be foolish to ignore them.

more presence on the platform.

The feature was in response to a finding by Amazon that building ad creatives and choosing a creative format were the biggest challenges that over 70 per cent of its advertisers faced.

According to Amazon, the solution is helpful for advertisers who do not have in-house capabilities or agency support to create brand-themed imagery. It also supports bigger brands, who are constantly looking for ways to be more efficient around creative development. The image generation capability is easy to use and requires no technical expertise.

Road Ahead With GenAI

A MarketResearch.biz report shows that the GenAI in e-commerce market size is expected to be worth around \$2,123.6 million by 2032 from \$529.5 million in 2022, growing at a compound annual growth rate (CAGR) of 14.90 per cent during the forecast period from 2023 to 2032.

"Generative AI has the potential to lead to step jumps across the entire spectrum—from development efficiencies to operational efficiencies," said Mohit Sharma, Co-founder and CTO, upliance.ai. "Brands that do well at generative AI will have a significant edge over brands that don't do this well," he added.

In terms of marketing and media, Gartner reveals that 30 per cent of outbound marketing messages from large organisations will be synthetically generated by 2025.

Plumettaz of Wayfair is optimistic about the growing role GenAI will play in customer design experiences and is testing out these in a controlled environment. In particular, Wayfair believes that some form of conversational search or AI-guided shopping will become prevalent in the next one to two years.

Upliance.ai also foresees good results with GenAI. The usage of this tech in the future will have a

significant edge over brands that don't do this well.

"It won't be long before robust generative AI capabilities become a fundamental necessity for retailers looking to stay competitive alongside their peers," Sanghai of Intellicus Technologies.

The promising prospects for GenAI are raising a concern about how the tech could affect employment. As the adoption of GenAI becomes more widespread and its applications in removing repetitive tasks become prevalent, there is a fear that it will replace jobs performed by humans.

Will GenAI Take Away Jobs?

According to a recent survey by Randstad, an HR services platform, a good majority of workers in India are more concerned about AI impacting their jobs as compared to workers in countries like Germany, the UK and the US.

However, industry players feel that the fear is misplaced. They believe that GenAI will move every job up the value chain, as the tools in the market are practically available to everyone.

According to Sharma of Upliance.ai, there are bound to be changes at every layer of the value chain, especially among specialists. "While there will be short-term volatility, in the long term, GenAI will lead to more unlocking of value, and more jobs, with more democratised knowledge," he said.

Wayfair said it works on GenAI in areas that increase workers' productivity and drive business efficiencies. "When Wayfair employees work in conjunction with Gen AI to accomplish specific tasks or outcomes, it gets the best combination of efficiency gains and improved quality outcomes," said Plumettaz. The saying in relation to AI and jobs that are doing the rounds applies to GenAI too. It goes like this: "AI can never replace radiologists, but certainly a radiologist who uses AI can replace one who doesn't." ■