
Ahead of the Trends



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Exploring the different ways fashion brands are embracing AI.

Uncertainty is a basic tenet of business life. In the fast-changing world of fashion and luxury, where trends emerge and fade with dazzling speed, uncertainty takes on a whole different meaning.

The fashion business has always been about innovation – ground-breaking catwalk shows and daring designs that shape the future – but it hasn't always been quick to embrace new technologies. The rise of artificial intelligence, however, has changed that reality in a very short period of time. From developing new designs to forecasting future trends for luxury fashion labels, we explore how some brands are using AI to give them an edge in this hyper-competitive landscape.

AI and design

One of the hottest debates since the emergence of AI has been its ability to match human ingenuity when it comes to being truly creative. The fashion industry has not been immune from [this discussion](#). Despite these reservations, the reality is that there is now a fast-paced and dynamic entrepreneurial ecosystem within the sector that is fully embracing the

potential of AI.

For a start, fashion brands have begun to explore how the technology can be used to speed up the design process. At the initial stage, it can allow creative teams to save time when experimenting by using AI to work up multiple designs from sketches.

A number of platforms, such as [The New Black](#) and [Resleeve](#), offer designers access to AI tools that can help them develop or adapt their own designs in seconds and without the expense of sketching or prototyping. Another fashion platform, [Cala](#), incorporates image-generating tools, while offering design advice, pricing models and even production support through its network of manufacturers.

Others have been looking to push the creative possibilities further, exploring how AI can be harnessed to connect the heritage of a brand with current and future trends. Fashion designer Norma Kamali collaborated with generative AI (GenAI) creative studio Maison Meta to develop a [new range of swimsuits](#) that utilised her extensive archives. Maison Meta has also collaborated on a number of projects with online fashion retailer Revolve to develop new collections and explore trends like retro-futurism. In one case, they ran an [AI Fashion Week](#) in 2023, which included a competition where Revolve produced the collections of the three winners.

GenAI also offers greater possibilities for increased personalisation and customised product drops. For instance, [Ablo](#) is an AI design tool that partners with clients such as luxury brand Balmain to allow users to customise a pair of limited-edition sneakers.

At the moment, the machines have not supplanted the designers. Instead, AI has simply given them an additional tool to enhance and support their creativity while accelerating the design process.

AI and sustainable optimisation

[Recent statistics](#) estimate that between 10 and 40 percent of the 80 to 150 billion garments manufactured each year remain unsold. One key advantage of more accurate trend predictions is a greater ability to predict what will sell, which can enable more efficient production and inventory management.

Levi's is one major brand that has embraced the potential to optimise its supply chain. It developed the **Business Optimization Of Shipping and Transport (BOOST)** engine, which uses machine learning and AI to improve the customer experience by streamlining the online order process and identifying the most efficient way to fulfil each order.

One major challenge for the industry (except at the very highest level) has been the ability to offer consumers customisation at scale. AI, in collaboration with other technologies such as virtual reality (VR), augmented reality (AR) and blockchain, may offer a solution. AI can allow for greater personalisation of garments to better match a customer's needs and preferences. On the most basic level, AI-driven technology can analyse a consumer's prior behaviour to make specific recommendations based on previous purchases and preferences (and this is driving the **rise of AI stylists**). This gives the consumer a greater connection to the brand and a more relevant and focused shopping experience.

A **survey of the American fashion industry** in 2023 put the average return rate of online apparel orders at just over 24 percent. That works out to around US\$38 billion in returns, with an estimated over US\$25 billion in processing costs. These expenses, not to mention the impact on sustainability and customer satisfaction, can be partly tackled through VR and AR technology. For example, **AI-powered virtual fitting rooms** allow consumers to try on the clothes without having to go through the costs of having the physical garments sent to them. It's no surprise that 85 percent of the apparel brands and retailers surveyed already used or planned to implement such virtual try-on tools.

AI can also help fashion brands take personalisation one step further by utilising 3D technology to allow a consumer to adapt a garment so that it is the perfect style and fit for their individual needs. For example, high-street brand H&M has introduced a GenAI-powered design tool to its **Creator Studio** that lets customers use text-to-image tools to mock up, then buy, pieces featuring custom artwork. Not only does this ensure greater consumer satisfaction but it can also facilitate longevity of use, thus reducing waste.

Finally, authentication-based AI can be combined with blockchain technology to increase trust in second-hand sales and guarantee the traceability of sustainable products (which often come with a higher cost). For example, fashion company **MMerch** created limited-edition drops designed using

GenAI that were linked to NFTs (non-fungible tokens) to guarantee authenticity.

AI and trend forecasting

With trend cycles accelerating, the ability to produce accurate trend forecasts has become a critical competitive advantage. However, “traditional” fashion forecasting could be described as something of an art form, relying on an eye for what’s novel rather than being driven by hard data.

Typically, it was down to an individual fashion buyer’s ability to sense the next big trends based on what they saw on the catwalks or how they read the zeitgeist in global fashion hotspots. Such forecasting was extremely time-consuming, labour intensive and expensive. Despite **often being accurate**, any accuracy was reliant on the “self-fulfilling prophecy” nature of the forecasting.

The power of AI-driven analytics has meant brands can now navigate the complexities of the market with greater precision. For example, **an AI model** can be trained to be familiar with fashion images and videos from a large-scale dataset. These could be taken from the latest runway shows, online stores and street snapshots. The AI model can then use these images to detect garments and classify clothing attributes such as fabric textures, garment styles and design details. Based on this analysis, the model can produce a detailed summary of potential fashion trends and predicted sales.

AI and strategy

The ability of AI to quickly and accurately mine data can offer more than a guide to future trends. For example, take the **IFDAQ (International Fashion Dynamic Automated Quantification)** system, a joint commercial-research collaboration designed to use AI to measure and interpret fluctuating brand performance.

The system does so by mining a vast “data lake”, the largest of its kind in the fashion industry, which allows for a deeper level of market analysis. By converting unstructured and qualitative data into quantifiable metrics, in this case real-time rankings, IFDAQ provides fashion brands with a clear picture of their standing in the market across various categories – from fashion capitals (to help identify shifting local demands) to fashion models (to

optimise impact and diversity) and brand performance.

Building on its data lake, IFDAQ, which is powered by Intel, has developed an Intelligent Performance Index (IPX), which adapts to real-time market changes. Say one specific social media platform suddenly becomes more important. IPX will identify this and increase the weight of that platform in the building of a brand image.

A number of leading brands are already using this dynamic analysis to examine how they perform against the competition. This has allowed them to adjust marketing campaigns and product launches based on their fluctuating popularity, or lack thereof, in different fashion capitals at different times. In one example, the Austrian Economic Chamber used the tool to quantify the market entry opportunities and risks in a major European capital for Austrian fashion brands across all price segments. IPX's localised performance data offered a broad range of indicators that measured the competitive landscape, including market saturation and market volume potential.

On the other side of the production cycle, retailers can use this trend analysis to better predict stock needs. For example, French department store Galeries Lafayette uses IPX to identify up-and-coming small brands and, among the bigger labels, weed out those that are losing traction.

Future-proofing

This underscores the importance of real-time data and AI-based analytics in empowering brands to thrive in an environment characterised by constant change. It is clear that AI is not a passing trend; it is unavoidable and is already producing real impact in the fashion sector. Indeed, a [2023 report by McKinsey](#) predicted that GenAI could add up to US\$275 billion to the apparel, fashion and luxury sectors' operating profits in the next three to five years.

With its capacity for learning, it's almost impossible to imagine what GenAI might be able to achieve. Yet, it is already clear that it has a fundamental role to play in ensuring that the industry can be better at dealing with the cyclical nature of fashion and, as a result, improve its strategic thinking, sustainability and ability to address the needs of individual consumers.

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