# H&M’s digital twin models spark ethical debate amid fast fashion’s sustainability crisis



The fashion industry, already notable for its rapid turnover and often questionable ethics, is now facing a new paradigm shift as fast-fashion giants like H&M begin to embrace "digital twin" technology. This innovation involves the creation of lifelike AI replicas of real human models, intended to enhance marketing strategies and design processes. H&M recently launched this initiative by digitally cloning 30 actual models, a move that highlights both the possibilities and the complexities surrounding this emerging trend.

Digital twins are generated through an intricate process of full-body scanning and voice modelling. These AI avatars not only promote products but also interact with consumers, effectively serving as digital models for virtual and social media campaigns. H&M's Chief Creative Officer, Jörgen Andersson, has noted that this technology could redefine how designs are showcased while emphasising a human-centric approach. This blend of innovation with marketing reflects a broader industry trend where AI-generated models are becoming commonplace, prompting a reevaluation of traditional modelling roles.

Yet, the rise of digital twins is not without ethical concerns. While some models may receive compensation and retain partial control over their likenesses, industry norms regarding pay and rights remain inconsistent. Jul Parke, a PhD student at the University of Toronto, has argued that as digital twin technology evolves, regulatory frameworks must be established to ensure fair compensation for creative industry workers. The potential for exploitation is particularly pronounced; those with significant online followings may benefit disproportionately, marginalising smaller, emerging talents.

Moreover, the technology raises critical questions about sustainability, especially in a fast-fashion sector already notorious for its environmental impact. Fast fashion accounts for over 92 million tons of textile waste annually, and many garments are designed for short-term use, leading to a troubling cycle of excessive consumption and waste. With AI-generated models at the helm, there are fears that companies may further minimise investments in human labour and sustainability efforts. Despite being virtual, these digital avatars still aim to drive the sales of physical products, potentially compounding the environmental consequences of overproduction.

In response to these challenges, various voices within the industry are calling for clearer ethical standards around the use of digital twins. Organizations such as the Model Alliance are advocating for regulations that ensure ethical practices and fair treatment of models. The dialogue surrounding this technology is crucial, as it determines not only the future of modelling but also how the industry navigates its existing sustainability concerns.

The consumer response can also play a significant role in shaping the future of fashion. Encouragingly, many individuals are turning away from fast fashion in favour of thrifting and secondhand purchases, extending the lifecycle of garments and curbing waste. These choices not only promote sustainability but also push back against a system that often prioritises profit over ethical and environmental considerations.

As H&M and others explore the innovative potential of AI-generated models, the ultimate success of digital twins will depend on the industry’s ability to balance technological advancements with ethical integrity and sustainability. Achieving this balance is imperative to ensure that digital innovations serve as tools for positive change rather than contributors to existing problems within the fashion landscape.

### Reference Map

1. Lead article on H&M and digital twin technology.
2. Discussion on AI-generated models and their ethical implications.
3. H&M's commitment to model consent and ownership.
4. Overview of H&M's AI initiative and collaboration with technology firms.
5. Insights into the implications of digital twins on the fashion industry.
6. Examination of digital twin technology's impact on design processes.
7. Concerns surrounding the effects of AI on fashion professionals.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.thecooldown.com/green-business/digital-twin-ai-fashion-industry-hm/> - Please view link - unable to able to access data
2. <https://apnews.com/article/aaa489111bd8e793aa6e5a531dc7ade2> - This article discusses how AI-generated models are being used in the fashion industry to enhance diversity and reduce waste. It highlights the experiences of London-based model Alexsandrah, who has an AI-generated twin, and examines the potential benefits and ethical concerns associated with this technology. The piece also covers the reactions of companies like Levi Strauss and the Model Alliance's advocacy for regulations to ensure ethical use of AI in fashion.
3. <https://fashionunited.ie/news/fashion/h-m-to-create-twins-of-models-with-ai-the-possibilities-are-almost-endless/20250328513983> - H&M is utilizing AI to create digital 'twins' of real models for use in marketing campaigns and social media posts. Thirty models, including Mathilda Gvarliani, have given their consent for this initiative. Chief Creative Officer Jörgen Andersson emphasizes the potential of generative AI to showcase designs innovatively while maintaining a human-centric approach.
4. <https://www.standard.co.uk/lifestyle/fashion/h-m-ai-digital-twin-model-b1219273.html> - H&M plans to use AI to create digital versions of 30 real-life models for its advertising materials. These AI-generated models will be used in marketing campaigns and social media posts. The company is collaborating with technology firm Uncut to photograph the models from various angles and lighting conditions. Models will retain rights to their digital likenesses and decide which campaigns they participate in.
5. <https://modnet.io/trends/hm-experiments-with-ai-clones-of-its-models-whats-next/> - H&M is developing digital twins of real models for use in marketing campaigns and social media. This initiative involves extensive photography sessions to create accurate virtual representations. The company emphasizes a collaborative approach, allowing models to retain ownership and control over their digital counterparts, and acknowledges potential mixed public reactions to this innovation.
6. <https://juststyle.nridigital.com/just-style_magazine_mar23/how_digital_twins_are_shaping_the_fashion_industry> - The article explores how digital twin technology is transforming the fashion industry by enabling brands to create and test designs efficiently. It highlights Zara's use of 3D digital technology to quickly create and test new designs, improving communication and collaboration during sampling and production processes, and reducing the need for physical samples.
7. <https://techinformed.com/fashion-retailer-introduces-ai-twins/> - H&M's introduction of AI-generated 'digital twins' of models for marketing campaigns and social media is discussed. The company allows models to control their digital likenesses, enabling them to license their AI duplicates to multiple brands. Concerns are raised about the potential impact on other fashion industry professionals and the ethical implications of AI in content creation.