MKTG 8604

New Frontiers in Retailing: Magic and Logic

Is She Born With It or Is It AI: Next Frontier of AI-generated Fashion Models

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1. Introduction and explanation of AI fashion model concept

The rise of AI-generated fashion models marks a transformative development in the fashion industry, with significant implications for the retail sector. AI fashion models are digital avatars created using artificial intelligence techniques and advanced 3D modeling. These models can range from “digital twins” of real-life models captured via body scanning to entirely computer-generated figures synthesized by neural networks. By leveraging generative AI algorithms, brands can produce lifelike model images or avatars without the need for creative concepting or physical photoshoots. This innovation is quickly gaining traction, allowing companies to envision models of any body type, ethnicity, or look on demand, opening up new possibilities for how clothing is designed, showcased, and marketed. Major companies like H&M have announced plans to create AI-generated model lookalikes for advertising campaigns, following earlier trials by Levi’s to supplement human models in marketing. These advancements suggest that AI-generated models are emerging as the next frontier in retail promotion, offering creative new ways to engage consumers in an increasingly digital marketplace.

However, as this frontier expands, it is met with both excitement and controversy. Proponents argue that AI fashion models offer practical benefits—from accelerated content production and cost savings to virtually unlimited creative customization. One AI agency founder noted that with this technology, “we can easily create digital models of any type, any ethnicity, any body type — anything you want,” underscoring its flexibility to represent a diverse range of identities. On the other hand, critics warn that replacing or augmenting human models with algorithms raises complex ethical questions. Industry observers express concerns about job displacement for models and creatives, the authenticity of computer-generated imagery, and the use of real individuals’ likenesses without consent. According to a 2023 survey by the Model Alliance, 87% of professional models and influencers believe AI-generated models will have a mostly negative impact on their industry, reflecting fears about exacerbating existing issues of representation or undermining labor rights. Despite these concerns, AI-generated models continue to advance in realism and influence. As futurist Sinead Bovell observes, in the e-commerce realm, “consumers likely can’t tell if it’s a human or AI model” when browsing product photos. This blend of excitement and concern underscores the high stakes of the trend, highlighting the need for a careful examination of the future direction of fashion modeling.

To explore this evolution further, the following sections of this paper will examine the history of fashion modeling, the development of traditional modeling practices, and the challenges surrounding diversity and representation in the industry. The discussion will then shift to the era of AI-generated models, exploring potential future applications, as well as the associated ethical concerns. Finally, the paper will consider steps for the industry’s adoption of AI-generated fashion models and conclude with a reflection on the broader implications of this “next frontier” for the future of fashion modeling.

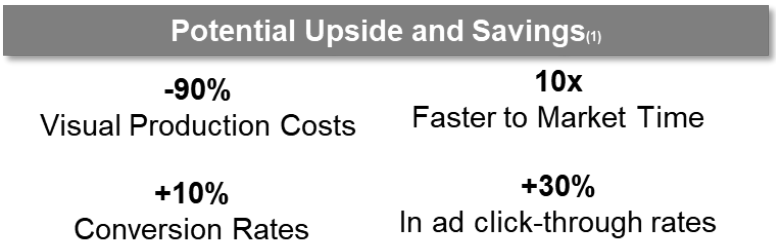

Figure 1: Average Savings

2. Traditional Fashion Modeling Process

Model Selection:

The traditional model casting process is a highly selective and often rigid system through which modeling agencies scout potential talent. Agencies typically look for specific physical attributes, with a strong emphasis on height, body measurements, and overall appearance. Historically, models were expected to be tall (typically around 5'9" or taller) and have a slender frame, as these characteristics were seen as the ideal for both runway and print work. For women, measurements around 34-24-34 inches were often considered the standard, although these numbers can vary depending on the agency or brand, and today, an individual's social media following and presence.

Runway and Photoshoots:

Once selected, stereotypical models typically work in two main contexts: runway shows and photoshoots. In runway shows, models are responsible for walking the catwalk in front of an audience, often at high-profile events like Fashion Week. Their job is to showcase clothing in motion, giving potential buyers and fashion critics a sense of how the garments fit and flow. The model's stride, posture, and ability to embody the designer's vision are crucial for a successful runway performance.

In photoshoots, models work to bring life to garments through still images, often for advertisements, lookbooks, campaigns, or fashion editorials in magazines. These shoots are carefully staged, and highly expensive, with the estimate that magazine covers cost way above $100,000 (James). Models are expected to adapt to various styles and environments, from commercial and lifestyle shoots to high-fashion, avant-garde editorial work.

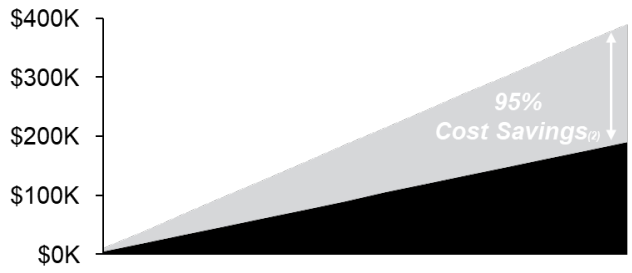

Figure 2: Estimated Cost Savings using Maker.ai

The Role of Agencies:

In the traditional fashion world, modeling agencies serve as the gatekeepers, playing a central role in a model's career. Agencies represent and manage the interests of models, helping to secure jobs and negotiate contracts with clients such as designers, photographers, and advertisers. Agencies typically scout new talent through open casting calls or by discovering models via social media platforms, looking for individuals who have the potential to meet the industry's standards and fit the needs of their clients. Once signed, a model's agency is responsible for securing bookings for runway shows, photoshoots, advertisements, and other fashion-related projects.

Agencies also play a key role in the professional development of models, providing guidance on things like building a portfolio, maintaining a healthy lifestyle, and managing their public image. They typically take a commission (often 20% or more) (My Model Reality) from the model's earnings for their services. In many cases, the agency's reputation and influence can significantly impact the success of a model's career, as being represented by a well-known agency can open doors to lucrative opportunities in the industry.

3. **Future Applications for Firms**

As AI-generated images and fashion models are a new technology with only a few use cases, we have to extrapolate and think creatively about what future applications can look like for firms. Firstly, in the immediate term, utilizing AI-generation for repetitive and static images like product shots, inventory cataloguing, and sizing appear to be realistic applications. As production cost and time required to hire photographers, stylists, and models is high, it is efficient for firms to prompt visual AI generators for a specific angle or styling by inputting one product image. Especially in fast-fashion firms, where turnaround time from trend virality to online availability is crucial, the ability to create AI-generated images can provide a competitive advantage to get products to market before competitors.

As AI-generated images improve in quality and realism, there is a viable future where today's supermodels can be created into digital twins: they take on an avatar version of themselves,which are prompted by brands to pose in the angles that the styling requires. This opens an opportunity for models to copyright their physical appearance and charge royalty fees to brands that want to use their visual IP for campaigns. Today, fashion models are humans that

can only physically be in one place at a time, whereas a digital twin allows for models to expand their reach and monetary gain.

4. Implications and Risks

As mentioned, the development of this technology is met with both excitement and reluctance. From the perspective of fashion brands, this development unlocks huge potential costs saved, while simultaneously boosting creative possibilities. H&M has been a trailblazer of sorts, launching an initiative to create digital replicas of 30 different models to be used in AI-generated images on social-media and larger marketing campaigns. Jörgen Andersson, the chief creative officer at H&M, described the idea as “something that will enhance our creative process and how we work with marketing but fundamentally not change our human-centric approach in any way” (The Guardian). Using AI-generated images opens up a world of flexibility to these fashion brands, as well as to models who can now be in "two places at once". H&M models who have agreed to this campaign advocate for the opportunity that the technology provides to take on more work and avoid travel.

In theory, providing flexibility to models’ schedules should result in more work overall. Marc Bain, Tech Correspondent at The Business of Fashion pointedly probes, however: "If a model can now be in two places at once, what happens to the model who would have booked the job the other had to pass on?" (BoF). Indeed, greater flexibility for models and fashion brands begs the question about the trajectory of an industry that already has a long track record of exclusivity and homogeneity.

Some digital twin-supporters attempt to make the case that AI-generation can initiate diverse casting in marketing campaigns. This can be done by using digital twins or completely computer-generated figures. Concerns arise in both scenarios. AI can be employed under the guise of inclusivity, but it can also be used for more homogeneous-focused alterations. For example, in 2023, Shereen Wu, a Taiwanese-American model spoke out about her image being changed so that she looked White (Fast Company). Further, if brands are seeking to uplift diverse communities, using completely computer-generated figures would be missing the mark. This solution does not provide economic stability to minority models, nor does it provide true representation to communities. Underrepresented consumers are seeking representation not only in imagery, but also in real-life moments: following a model with whom they relate on their path to success across the industry. The argument for AI-generation as it relates to inclusivity and diversity is misguided. Inclusivity and diversity is not prevalent in this industry, not because there is limited access to diverse models, but rather because the industry remains rooted in deep-set systemic biases.

Finally, it would be remiss to leave out the financial and legal effects that AI-generation has on models and extended industry workers. There is currently no clear compensation or legal structure for models who allow brands to use their digital twins. Will brands pay more because of the costs saved in travel expenses, or less because they don't need the models to be physically present (BoF)? Who owns the rights to the digital twin - the model or the agency? These are issues that lawmakers are already discussing, but have yet to institutionalize. Paul W

Fleming, general secretary of trade union Equity - which represents fashion models in the UK - said models having full control over their likeness and fair pay for its use was "vital" (BBC). Aside from the model, marketing campaigns employ large crews of hairstylists, makeup artists, set designers, photographers, etc. Using AI to generate images not only eliminates the need for models in person, but also eradicates jobs and income to these supporting industry workers.

5. Next steps for adoption

As AI-generated fashion models continue to evolve, it is crucial for brands to move with deliberate and values-driven implementation. The path forward for adoption strategies should build on current capabilities of generative AI, while also addressing the ethical, operational, and cultural concerns that have been raised.

One of the most immediate steps brands can take is to launch a pilot program that produces low-risk content such as internal cataloging, website product pages, and local advertising campaigns. These small-scale rollouts can allow brands to assess the impact of AI-generated content through measurable metrics, across production speed, cost savings, as well as consumer engagement, prior to expanding further. Controlled A/B testing between AI-generated as well as traditional campaigns can also help brands understand where and how the technology adds value. To maintain trust and reinforce the brand's human-centric values, brands should consider transparent labeling of AI-generated content, paired with educational storytelling of the creative process.

Additionally, brands should strategize how AI-generated models can be used in ways that deepen personalization and inclusivity, rather than obscure it. They can offer real potential for efficiency and creativity, but it is on brands to adopt them in a manner that is thoughtful, transparent, and in alignment with their values. Walmart's integration of Zeekit's virtual fitting room technology exemplifies this approach - by allowing customers to select AI-generated models that match their skin tone and body type or even update their own photos for a personalized try-on experience, Walmart leverages AI-generated models to enhance customer engagement and satisfaction while demonstrating a commitment to inclusivity and innovation (Walmart).

To ensure adoption is done responsibly, brands must consider simultaneously investing in clear legal and ethical frameworks, as the question of who owns the rights to a digital twin remains unresolved. Without any current legal precedent, brands should work to proactively create licensing agreements with models that define ownership, time-bound usage, and fair compensation. Moreover, given the current landscape where the industry has yet to formalize standards around compensation, IP, and representation, brands should consider forming coalitions with competitors, trade unions, and technology providers to define standards and ensure ethical and equitable AI usage across the fashion ecosystem.

6. Conclusion

AI-generated fashion models are more than flashy, new technology, they're the catalyst for a shift in how fashion brands approach creativity, representation, and customer relationships. The benefits for brands are clear: quicker content creation, a wider breadth of personalization and representation opportunities, and cost savings. That being said, these operational benefits potentially come with significant risks. Marketers and brand leaders should weigh the potential impacts on team compensation, talent consent, authentic representation, and consumer trust. As the H&M case portrays, digital cloning is not just a technical decision, it's a brand statement. The use of AI in marketing can create new opportunities for models and creative teams, but without safeguards or legislation, it also risks reinforcing the same biases that have historically challenged the fashion industry, while putting innovative creators and talent out of jobs. Getting it "wrong" risks negatively impacting industry talent while eroding the emotional connection that drives customer loyalty.

The emergence of model "digital twins" introduces exciting, new opportunities for scaling content creation at a lower cost, but also prompts risks around intellectual property, licensing, and ethical use. As marketers explore these tools, a lack of strategic alignment or safeguards against brand erosion could compromise the consumer trust at the foundation of long-term brand equity. Overall, this is not a call to reject AI-generated fashion models, but rather a suggestion to adopt them cautiously with clear intentions. Fashion brands that approach AI-generated models as an enhancement tool, not a replacement, will likely see the best brand outcomes in the future.

Figure 3: H&M's Controversial Models

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