

A new series of thought leadership white papers about economic, investment and industry trends that shape how we live, think and invest

THE FUTURE OF FASHION TECH

AI Models, Pret-A-Porte 3.0, Demand Forecasting

Larissa Posner is in her Brentwood, CA, kitchen cooking for friends.

“Let me see now, what was the ingredient the chef used in the restaurant we dined at the other night? Oh, I know!”

And she reaches for a small jar of coriander.

“My friends call me the super taster,” Posner says.

She loves to cook, and she cooks in much the same way that she builds her business, by reverse engineering everything.

Posner is the CEO of StyleScan, a new venture-backed company that takes shopping for clothes online to a whole new level.

“Traditional shopping is antiquated. I believe that the future of shopping will be very personalized,” she says. “We are making it possible for shoppers to choose models who represent them, to never have to guess their sizes and to view color combinations before they make their purchases.”

“We represent the new America by making shopping inclusive for women of all shapes, sizes and ethnicities,” she says.

StyleScan is one of several new startup companies in the fashion technology industry that are bursting onto the scenes as they are bought up by larger fashion companies or, in some cases, preparing to go public.

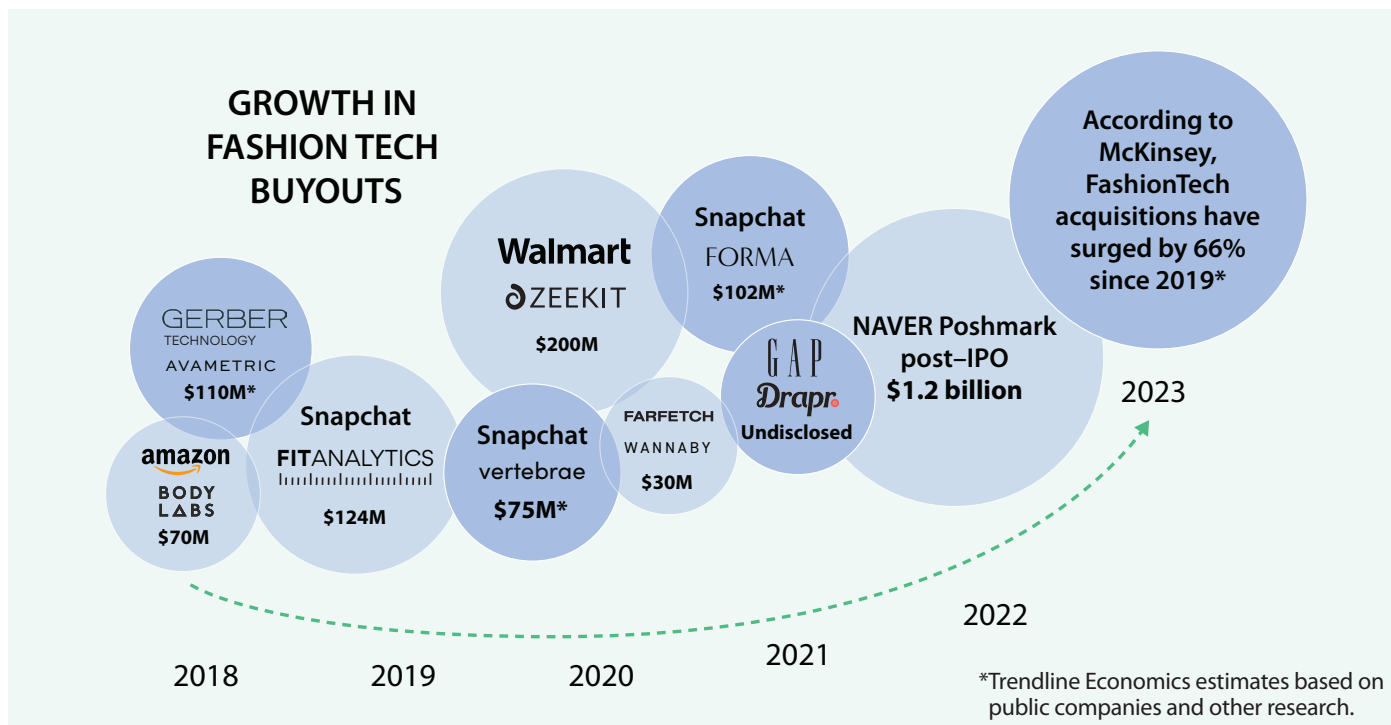
Amazon, Snapchat, The Gap, Walmart and Gerber Technology are just some of the companies that are battling each other to bring the next wave of fashion tech to the masses. Some fashion companies are building their own AI models in-house, but most are acquiring it elsewhere. See graphic below.

Technology and the Covid pandemic have already revolutionized the way global fashion companies do business, accelerating e-commerce

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among consumers and embedding digital tools. By giving consumers more choices and a simpler decision-making process, brands now have an opportunity to expand the breadth and depth of technology applications. Fashion brands and retailers are becoming more resilient to pret-a-porte supply chains, but also to become more responsible and transparent as the world seeks more sustainable solutions.

While some of these technologies are not limited to the fashion industry, there are two fashion-specific technologies that this white paper will focus on: artificial intelligence modeling, and demand forecasting through traceability software. We believe these are two areas that will make or break the future of fashion technology.

Choosing A Business Model For Fashion Tech

Trendline Economics' research has concluded that few business models in the fashion tech industry are strong and capable enough to sell directly to business clients or to retail clients. As such, they need to either position themselves for acquisition by large fashion brands or, in some cases, technology brands. One other option is for

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venture-backed fashion companies to launch their own IPOs. But for most fashion tech companies, this only works if they have a “hook” which combines fashion tech and a niche in the fashion industry.

Two examples of this are: FIGS, which operates a direct-to-consumer healthcare apparel and lifestyle brand, and Poshmark, a social commerce marketplace where consumers can purchase secondhand clothing and apparel. Both brands soared and launched IPOs during Covid when their niches – healthcare garments and secondhand clothing – caught traction. But since then the stocks on both companies fell as competition from the online retail and fashion brands picked up.

Poshmark was eventually acquired by Korean internet conglomerate Naver Corp., which possessed the tools and resources needed to expand the firms’ internet presence and invest in technology.

After soaring past \$40 in the weeks after its May 2021 IPO, FIGS shares have been recently trading as low as \$6 as competition heated up with more brands entering the space. Like Poshmark, FIGS initially cornered the market, but ultimately fell behind without the necessary influx of capital to maintain the pace of technological innovation. For example, FIGS received rave reviews for the way it offers users a diverse array of choices. Women’s scrub pants are available not only in varying color and size but also in category, style, fit, rise, pant length and waistband. But as bigger brands entered the space and allowed users to match choices with AI models, FIGS simply lacks the cash to invest in AI modeling.

FIGS offerings include scrub wear and non-scrub wear, such as lab coats, under scrubs, outerwear, loungewear, compression socks, footwear and other lifestyle apparel.

KEYS TO SUCCESS IN FASHION TECH

- Continued prioritization of investment in innovation
- If you don't have sufficient technology, considering acquiring it
- Align with a top fashion brand, or be ready to be acquired by one
- Devise ways to allow supply chains to be traceable and visible
- Big Data will continue to be key (i.e., through data collection, creating digital ledgers)
- If your technology isn't aligned with AI, hyper-personalization, digital fashion or virtual skins, consider doing so now.

AI Modeling Goes Mainstream

Meanwhile, AI modeling companies are making big money through licensing and selling their technology to large fashion brands.

"Both mainstream and high-end fashion brands are reaching younger generations by way of outfitting their avatars with new skins," says Maria Rugolo, director and fashion analyst for Port Washington, NY-based NPD Group. "These brands are also testing the waters with digital showrooms, allowing consumers to picture themselves in new designs — without ever leaving home — taking technology to a whole other level. Apparel brands and retailers need to weave in elements of social selling as part of their future planning and strategies."

Levi's recently launched an AI-generated model, a digital rendering of a human being that will start appearing on Levi's e-commerce website later this year. To come up with this avatar, Levi's teamed with LaLaLand.ai, a digital studio that makes customized AI models for fashion companies.

Amy Gershkoff Bolles, Levi's global head of digital and emerging technology strategy, announced the model's debut at a Business of Fashion event in March.

“When we say supplement, we mean the AI-generated models can be used in conjunction with human models to potentially expand the number of models per product,” a Levi’s spokesperson said. “We are excited about a world where consumers can see more models on our site, potentially reflecting any combination of body type, age, size, race and ethnicity, enabling us to create a more personal and inclusive shopping experience.”

Michael Musandu, the founder of LaLaLand.ai, says the new avatars are not meant to “replace” models, but to allow brands to display different clothes on as many bodies as possible – sizes, skin tones, ages, etc.

For fashion brands it is not feasible to shoot 10 models for every single product they sell. AI-generated images don’t need hair stylists, make-up artists or even photographers, so by using fake avatars brands can cut costs they would otherwise spend on glam squads.

Similarly, StyleScan’s technology is already being used by brands such as Millianna, Odds, Royal Revival, Nathasha Zinko and alla berman, among others.

But Posner says it’s not enough to sell or license its technology. StyleScan needs a big-name partner in the fashion world.

She says that “most of our rivals lack aesthetic values, accuracy and ease of use for consumers as well as for online retailers,” but concedes that “most likely we will be acquired.”

“Larissa and her highly-skilled team have built a high-quality product that solves two key growing problems within the fashion retail sector: providing competitive customer experiences and reducing the cost and environmental impact of returned items,” said Robin Saunders, Managing Partner at Clearbrook Capital, a seed-round investor in StyleScan.

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StyleScan Founder and CEO Larissa Posner in her home office.

Photo credit: StyleScan

INSIDE A FASHION TECH COMPANY

Posner got the idea for StyleScan while working in quantitative finance. And as a former model and online shopper, she was frustrated with buying clothes online only to discover the clothes didn't match her style, shape or color when they arrived at her door.

"If only I could design my own model that could try on the clothes for me," she says.

Hence StyleScan was born, and after two rounds of venture financing, StyleScan has sold to more than 12 style brands to use its online tools for AI-based visualization technologies.

"It has been a fast run," she said in an interview in her home office in Brentwood. The company also has a primary studio in Van Nuys, CA.

Just five years after it was founded, StyleScan turned a profit last year and is now cash-flow positive.

Posner is an immigrant from Ukraine, arriving in the United States just over 10 years ago. Over the past year she has watched in horror as the Russian invasion of Ukraine left her homeland in shambles. Bombs destroyed her hometown of Nikolaev, on the Black Sea.

She has done her best not to allow the war in Ukraine distract her from her entrepreneurial spirit.

"The best way I can think of is to continue to make a mark for myself, so that, when the time comes, I will be able to give back," she says.

She has hired several Ukrainian refugees as models or tech people, and is in talks with several Ukrainian fashion companies to license StyleScan's technology. "Ukrainian people are very hardworking. You are programmed that way from the beginning."

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While StyleScan may seem at first glance to be an online shopping channel, in reality StyleScan is a software company that applies AI solutions for the fashion industry.

“Technical talent is our secret sauce,” Posner says. We’re bringing in people who have previously developed systems for beating the stock market, casino games and even cancer by coming up with unique protocols. They do all this through the implementation of machine learning and artificial intelligence. Applying it to computer vision is a natural progression.

“I look for people who are technically creative with a diverse set of uncorrelated ideas. As General Patton said ‘If everyone is thinking alike, then somebody isn’t thinking.’ For example, we’ve built technology that is designed to do outlier detection. It makes sure that our digital models and their clothing look as natural and realistic and aesthetically pleasing as possible.”

She defines success as “being ahead of the curve. To get there, you have to figure out your own path. If you are always applying the same concepts as everyone else, you are not ahead of the curve. You are the curve.”

StyleScan represents the future of how women shop.

“I believe that the future of shopping will be very personalized. And that is the thrust of our mission. We represent the New America by making shopping inclusive for women of all shapes, sizes and ethnicities.”

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For Posner, she says her work with StyleScan allows her to work “with really smart people in the solving of challenging problems. It is very rewarding to find unique solutions that solve complex issues for our customers.”

ESG in Fashion Tech

In terms of meeting environmental and other social and governmental guidelines, fashion tech stands to gain from the ongoing push to link investments to ESG.

Fashion tech in many cases stands to reduce carbon emissions and reduce labor workloads by fostering the adoption of AI. On the B2B level, fashion tech companies facilitate an all-digital approach that goes from designing to merchandising to manufacturing. Clients can sell first and manufacture second. Companies that use AI modeling allow clients to merchandise garments — on digitized fashion models — that they have not yet produced in their factories. What's more, many fashion tech companies generate zero textile waste and saves costs.

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On the B-to-C level, they arm consumers with virtual try-on and visualization. This allows them to make precise choices and that lowers the number of returns.

Fashion manufacturers are moving in the direction of designing clothing digitally in -3D, rather than sewing garments together before selling them.

Furthermore, the success of fashion tech has not been pandemic-related. It has more to do with the growth of technology. Efficiency, convenience and the digital transformation are happening independent of the pandemic. Fashion tech solves problems in that realm, which is here to stay.

Still, the coronavirus pandemic accelerated the interest in 3-D models. It was no longer an option. It was a necessity.

The Rise in Demand Forecasting through Traceability Software

Trendline Economics expects fashion companies to increase their investments in technology from the current rate of about 1.8 percent of sales to between 3 and 4 percent by 2035. Investors will seek companies whose technologies aim to make fashion players more nimble and more efficient. A big part of that will be dedicated to the rise in demand forecasting through traceability software.

“Traceability from a sustainability point of view has become more important. So digitizing the whole supply chain end to end is a big topic for many of our clients,” says Achim Berg, head of McKinsey’s apparel, fashion, and luxury group. “That’s also why technology investments for the fashion industry are expected to ramp up.”

Fashion companies that fail to embrace these technologies will face barriers, while innovative, tech-savvy companies should see an increase in sales as consumers embrace these technologies. The global spend on virtual goods reached around \$110 billion in 2021, and is expected to reach around \$140 billion by 2025, according to forecasts by Trendline Economics.

Fashion powered by traceability software and Big Data that tracks what users are wearing and buying will help fashion brands focus reach into their supply chains to understand the lifecycle of their products.

According to a survey conducted by McKinsey, more than 50 percent of fashion decision makers say traceability will be a top-five enabler to reduce emissions in their supply chains. Although many brands at best currently only have visibility over their suppliers with whom they have direct relationships.

Creating a centralized system for sustainability metric calculations, data collection and supply chain traceability is essential.

To accelerate advancements in traceability, fashion companies should invest in emerging technologies like digital ledgers. Although blockchain has come under fire recently among the investing community, there is no doubt that the ability to make use of digital ledgers from a supply chain point of view will be extremely important going forward.

Brands that invest in AI modeling and traceability software do so to create one-to-one, personalized shopping experiences. As a result, these companies will see more traction from customer acquisition rates and revenue.

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