Culture
1ST YEAR ON THE LIST

Digital Fashion

KEY INSIGHT
With more and more of the developed world’s population customizing avatars in virtual realms, and with the fashion industry perpetually under fire for its pollutive practices, the market for digital fashion has a promising future.

EXAMPLES
Some of the world’s best known designers have gotten wise to the virtual revolution. Iconic Italian fashion house Gucci has invested in a number of digital fashion initiatives, from a free digital closet partnership with avatar platform Genies, to an integration with styling game Drest, to an in-house app called Sneaker Garage, where users can use augmented reality to “try on” the brand’s virtual footwear. Other big-name designer labels have similarly seen gaming as their entrée into the digital space, with Hermès launching an equestrian-inspired mobile gaming app, and Louis Vuitton partnering with the massively popular League of Legends gaming franchise. Elsewhere, Dutch brand The Fabricant has established itself as one of the leading digital fashion companies, catching headlines when one of its virtual dresses sold for an eye-popping $9,500.

DISRUPTIVE IMPACT
The digital fashion market is poised for growth, both for its versatility in online environments and its ability to reduce waste without retailers having to forego sales. Physical garments may soon come with virtual counterparts, allowing users to catalog their wardrobes digitally, and hang on to a version of their garments even after the physical piece degrades. The ability to express oneself freely through virtual styles may help consumers develop more ecologically conscious shopping habits when it comes to real-world items. In time, as AR eyewear becomes commonplace, users may even be able to virtually showcase their digital looks on their person instead of just an avatar—imagine a future in which you select a simple sustainable garment or “canvas” from your physical closet, but select a virtual outfit to project on top of it, one that is visible to anyone wearing smart glasses.

EMERGING PLAYERS
- The Fabricant
- Gucci
- Louis Vuitton
- Dapper Labs

“...I truly believe we are going to be the first billion-dollar digital fashion company.”
— The Fabricant founder Kerry Murphy
Once the preferred method of DIY designers and niche clothing brands, upcycling and circular, sustainable fashion has matured to the point where it is being adopted at scale by fashion retailers worldwide.

According to analytics firm First Insight, more than half of Gen Z customers surveyed prefer to buy from sustainable brands, and nearly three quarters are willing to pay more for sustainable products. Big name retailers have taken note, innovating on upcycling and circularity to attract this growing customer base and reduce harm on the environment. Fashion industry waste ranges from its sheer output—tens of billions of clothing products are produced each year, even by conservative estimates—to the consumption of water and even coal. From industry leaders like outdoor clothing brand Patagonia, whose award-winning circular production model is founded on designing pieces to last a lifetime with proper care and refurbishment, to high fashion Parisian label Marine Serre, whose line is constructed of roughly half upcycled materials, sustainable solutions are spreading and accelerating across a diverse range of fashion retailers.

Sustainability is the single greatest challenge facing the fashion industry—and also its greatest opportunity. An investment in circular production models now may pay dividends in the future as the next generation of conscientious consumers matures and their purchasing behaviours shape the industry. More retailers are exploring buyback and recycling programs as well, like H&M’s Loop program, which dissembles old textiles to create new products without using virgin materials. Brands that are making the foray into digital fashion often cite sustainability as a benefit, and digital designs will complement responsibly produced real-life garments to form the hybrid fashion industry of the future.

We don’t have to all reinvent the wheel, but brands that don’t face these realities of the true cost of apparel and fast fashion, I think they will be left behind.

— Patagonia CEO Rose Marcario

New production models from fashion retailers look to repurpose existing materials and garments wherever possible, instead of producing virgin materials.
Digital makeup exists at the intersection of facial recognition, 3D mapping, and augmented reality. As AR becomes a part of our everyday lives, digital touchups and expressive virtual makeup will define how we choose to present ourselves to the world.

**Examples**
Social media platforms including Snapchat and Instagram offer users AR filters that can change their physical appearance in photos and videos. Some are fanciful, giving the user animal attributes or drastically changing their features, but others mimic the effects of makeup, contouring and coloring the face with the aim of improving its aesthetic. Even video conferencing platform Zoom has a feature where users can smooth their complexion for a more desirable appearance. Beauty brands themselves have ventured into the digital space as well. Redken, Avon, MAC and Maybelline offer virtual "try-on" AR apps, saving time and money for those looking to match products to their skin tone when buying online. L’Oreal, meanwhile, has created a line of digital-only beauty products to be used in popular social and video conferencing apps.

**Disruptive Impact**
Digital beauty is not merely a consumer perk. It can have a direct effect on business. China’s AliPay responded to complaints that customers were put off by their appearance when paying for items via facial recognition camera systems, adding a digital beauty filter to improve the experience. Gaming platforms with customizable avatars and robust marketplaces for in-game purchases are a popular way for beauty brands to test digital products. Unisex skincare label Evenprime created a "skin" for avatars in the fantasy action game Spellbreak, and customers who bought Evenprime’s skin serum in the physical world automatically received access to the digital skin. With gaming becoming increasingly popular among women and girls, despite old-fashioned assumptions to the contrary, the gaming and esports beauty market may soon become a new profit center for cosmetics brands.

**Emerging Players**
- AliPay
- Drest
- Evenprime
- Ines Alpha
- L’Oreal
- Snap
- Spellbreak
Extreme Sunscreen

Mid-future neutral scenario
In the Anthropocene era, the amount of solar radiation emitted by the sun is too intense for relaxing at the beach—or doing mundane activities, like walking to school. Enter climate protection: a range of lotions and salves that glide onto the skin and fend off extreme sun, heat, and wind. Made with synthetic zinc oxide, titanium dioxide and polypodium leucotomos extract, climate protection blocks radiation and temporarily desensitizes the skin to harsh, dry air. It’s dangerous to spend time outdoors without coverage. Those who can afford beauty enhancements opt for pricier formulas that include body makeup, to correct blemishes, veins, and scars. For the lips and face, personalized climate protection includes a topical, fast-absorbing collagen that tightens and plumps the skin, though no salve reverses the sun damage caused by extreme climate change in the early 2000’s.
KEY INSIGHT
From neuroenhancers to sextech, the unique market for digital and high-tech vices is growing.

EXAMPLES
The new crop of vices are digital, high-tech and organic. They were designed to strengthen our mental performance and agility, help us relax, and afford us moments of pleasure.

DISRUPTIVE IMPACT
A bitter election season, fragile economy and the global pandemic resulted in stress and burnout. Two thirds of adults say that the number of issues America is facing is overwhelming to them, according to a study by the American Psychological Association.

In the past year, as lockdowns forced people indoors and reset our social structures, many struggled to navigate self-care. It’s no surprise that we’re seeking new ways to escape reality or to enhance our moods.

EMERGING PLAYERS
• Doppel
• Emotiv
• New Frontier Data
• Thync Kit
• Bulletproof

CBD gummies are increasingly available in the U.S.
Neuroenhancers

Neuroenhancement devices aim to record brain waves and send feedback. Some promise to help you become more productive, while others are meant to boost your mood. Australia-based SmartCap uses a tracking system with voice warnings and vibrations to keep you alert while on the job. The Muse headband uses neurofeedback to help manage stress and improve athletic performance. The Emotiv Epoc+ and Emotiv Insight and mobile EEG devices monitor your brain activity and analyze cognitive performance. Doppel, which is worn on the wrist, uses electric pulses to augment your energy. The pulsations, which you dial in based on your needs, are supposed to have an effect on your brain similar to that of music. The Thync Kit is a series of electrodes and a triangular device that you stick on to your head—as well as a mobile app synced to your smartphone. It delivers low-grade electric pulses to influence either your sympathetic (fight or flight) or your parasympathetic (rest and digest) nervous system. Of course, this same technology can be used for nefarious purposes. In China, the military and some businesses now use connected headbands and hats to monitor employee brain activity. This emotional surveillance technology is said to optimize productivity—even if they’re not officially regulated or approved by the Food and Drug Administration. You may already be taking a few: caffeine, red reishi mushrooms, ginseng, turmeric, ginkgo biloba, and Bulletproof coffee are all popular, while natural supplements like creatine, L-theanine and Bacopa monnieri are also being marketed to help promote mental clarity, focus, and information retention. Synthetic compounds, like Adrafinil and Noopept, last longer and take effect within minutes. By some analyst estimates, the nootropics market could reach $11 billion in America alone by 2024.

Nootropics

If you need to manage stress or focus, you might look to “nootropics,” cognitive enhancement drugs that promise to help keep you calm and attentive. These dietary supplements have been shown to improve cognitive function—even if they’re not officially regulated or approved by the Food and Drug Administration. You may already be taking a few: caffeine, red reishi mushrooms, ginseng, turmeric, ginkgo biloba, and Bulletproof coffee are all popular, while natural supplements like creatine, L-theanine and Bacopa monnieri are also being marketed to help promote mental clarity, focus, and information retention. Synthetic compounds, like Adrafinil and Noopept, last longer and take effect within minutes. By some analyst estimates, the nootropics market could reach $11 billion in America alone by 2024.

Grinder Biohacking

Most body-machine interfaces, like Elon Musk’s Neurolink, aren’t ready for the general public yet, but that hasn’t stopped some people from experimenting. Grind-er biohackers implant RFID tags, computer chips, magnets, data transmitters and sensors in their bodies. Their aim: transverse the human-machine divide, and become more seamlessly integrated with technology.

CBD-Infused Products

Consumers can get CBD in post-workout smoothies, hand lotions, and even morning coffee. Cannabidiol, otherwise known as CBD, is a chemical compound found in the resinous flower of cannabis. While it’s a component of marijuana—one of hundreds, actually—it is far less psychoactive than the better-known THC, if at all. In other words, it doesn’t really get you high. As of January 2021, 14 states, Washington, D.C. and three territories have legalized cannabis, according to the
beverages. Constellation Brands, which makes Corona beer, and Lagunitas (a subsidiary of Heineken), are both investing in new techniques to infuse their products with CBD. In some markets, Lagunitas also offers drinks with 10mg of THC.

Cannabis Supply Chains

The supply chain for cannabis is challenging, and due to federal regulation, the largest logistics companies—Amazon, FedEx, and UPS—cannot legally service vendors. Cannabis brands must become their own first party distributor and must own all of their own logistics systems (vehicles, warehouses, packaging) or else use specially-licensed third-party vendors. That latter category is catalyzing new business growth. Local dispensaries are supporting startups that can take orders, authenticate users, and ensure safe and legal delivery to consumers. Eaze and Greenrush are the biggest players in medical marijuana delivery. Wayv, a B2B cannabis logistics firm, launched its Dynamic Distribution platform, which helps companies in California list themselves as third-party distributors for other brands, and automatically runs compliance checks. This will enable cannabis brands to someday move products within their states more easily.

Cannabis Compliance Systems

With the industry heavily regulated, it can be difficult for dispensary companies with business units located in different states to keep track of compliance. New A.I.-powered platforms are helping dispensaries meet these sometimes complex compliance regulations.

Specialized Cannabis CRM Platforms

Unlike traditional CRM or customer databases, marketers in the cannabis space have additional regulations to contend with. Baker is an automation platform that caters to dispensaries, combining e-commerce, distribution, inventory management, texting, and loyalty programs.

Banking for Cannabis Dispensaries

Banking is a big hurdle for dispensaries and their parent companies. Servicing the cannabis industry would expose traditional financial institutions to federal prosecution. Green Thumb Industries, which operates 50 stores, earned $8 billion last year. But it doesn't have access to banks like JPMorgan and Wells Fargo; instead, it must rely on a constellation of small community banks. However with Democrats in charge of the White House, Senate and House, new legislation could make banking easier for dispensaries.

Vaping and E-cigarettes

In February 2021, lawmakers held a hearing to determine why the FDA failed to regulate vaping sooner. The Centers for Disease Control and Prevention estimates that 3 million American teenagers vape either tobacco or marijuana, and a newly-identified lung disease called EVALI, short for “e-cigarette, or vaping, product use-associated lung injury” is growing sharply among that cohort. Puff Bar, which was ordered last year to take its fruit-flavored vape products off the market, defied FDA and resumed online sales in January, saying that it no longer uses nicotine derived from tobacco. Instead, the manufacturer uses synthetic nicotine made in a lab. Juul Labs, which dominates the e-cig market and is largely blamed for America’s vaping epidemic, voluntarily discontinued its flavored products, with the exception of tobacco and menthol flavors. Many competing brands including Bidi Stick and Blu, offer disposable, pre-charged, pre-filled vaping devices, and they’re cheaper than Juul pods.