

Digital & Technological Fashion: An Indian perspective

The fashion industry is one of the most innovative industries creating varied collections multiple times a year. With its pace of innovation, it also experiments constantly with different and newer ways to attract GenZ whether by way of tying up with gaming platforms, or promoting slow fashion addressing environmental concerns with young conscious minds or even engaging with wearable technology. What is also being referred to as the alter ego of our real world, the Metaverse is gaining traction for increased opportunities to the fashion industry. From celebrities dropping NFTs (Non-Fungible tokens) to brands launching their virtual collection, to collaborations with gaming platforms, an additional consumer base is on the rise. Virtual fashion weeks are all the rage including in India. At the same time, aptness of the current legal framework globally, is being reviewed to cater to newer challenges being posed on a daily basis. The fashion industry in India is also beginning to dip its toes in the new virtual world. Apart from the meta-plunge and legal implications, whether consumers in India are willing and ready to take up fashion in the virtual world, remains to be seen.

Smart-Wearables across the globe

Instances of wearable technology (tracking heart rate, sleep cycles, other vitals) through smart watches, smart glasses etc. saving lives of people have been in the news in the recent decade. However, people over the centuries have been working with technology, with multifold advancement being witnessed in the present times. Back in the 1500s, a German inventor created small watches that were worn as necklaces. The world's first wearable technology may have been made during the 17th century in form of the 'Abacus Ring' used by traders to make calculations. While it took several decades for smart wearables to receive global attention, fast forward to present, out of the world population estimated little more than 7.5 billion, almost 1 billion people use smart wearables on a daily basis.

An extension of smart wearables – smart textiles, are fabrics which can interact with the environment and the wearer. These fabrics are developed with technologies that possess functional qualities over mere aesthetics. With newly developed sewing technologies, smart clothes can work just like smart watches, monitoring health amongst other things with enabled connection to technological devices. Having developed a way to transform cloth material to smart interfaces, technology has made possible connection to smart devices with the smart fabric powered by wi-fi or radio waves eliminating need of a battery. Clothing, recognized as a basic human right, to provide 'physical safeguard to the body' can now do so much more than 'preventing harm from climate and environment'. One of the earliest designers to have worked with smart textiles was Pierre Cardin who created "robe electronique", garment that featured a geometric embroidered pattern with LEDs in 1967. Over the years, several global fashion brands have already released smart clothes – Levi's and Google collaborated to create a Bluetooth enabled Jacket making hands-free communication possible for bicyclists. Ralph Lauren collaborated with several tech-companies to create self-heating jackets helping athletes in cold temperatures. An Indian origin scientist made news with his research to make Smart gloves that could help doctors treat patients with Parkinson's disease. Another label launched 'SoundShirt' allowing hearing-challenged people to feel music.

Position in India

Since decades, smart fabric and garments are being worked on in India. Reliance Industry, an Indian multinational conglomerate with diverse businesses including textiles, for instance, launched Smart Fabrics under its flagship textile brand 'Vimal'. It received a patent from the USA for its DEO2 technology enabling fabric to resist the settlement of micro-organisms keeping it off perspiration odour. Another smart fabric 'Protect' meant for consumers of tropical countries, the fabric, was designed to have anti-dust, stain release, anti-microbial and anti-pollen properties. An Indian start-up Luminati Clothing Co., created a garment inspired from a peacock wherein its feathers could rise, colours displayed and included a device that made the garment vibrate to reflect the excitement of a peacock. This garment design was selected for the world's largest smart textile fashion show "Makefashion" in Canada.

The Indian Institute of Technology, Delhi's Textile and Fiber Engineering Department which is known for smart textiles, recently collaborated with the government to develop Smart Protective Clothing for the Indian security forces deployed in high altitude areas and to develop sensor fitted garments. Thus, in terms of adaptability of technological advancements, the fashion industry in India has in fact been keeping pace with the changes across the globe. Having said that, compared to the position across the globe, smart clothing in India is still at a nascent stage. However, many steps are being taken to facilitate innovation in the fashion industry as well. For implementation purposes, the laws and procedure governing protection of intellectual property creations has also been made seamless with the Intellectual Property Offices in India adopting a progressive approach allowing faster turn around time for granting protection. As one of the two major manufacturers of smart textiles in the Asia Pacific, and amongst the two largest producers of manufactured fibers, India's place in the global smart textile market is likely to grow significantly in the future.

Legal concerns:

Smart wearables collect data and have potential to share the same through linked apps and other smart devices, sometimes without consent. Such data may include personal and sensitive information concerning the wearer, which may pose threat to their privacy. While Right to Privacy has been recognized as a fundamental right in India, the laws governing data protection are yet to be framed in which case, implementing the fundamental right has many associated ambiguities. Absent specific laws on hosting, collecting, storing and sharing data, data breach is certainly a concern particularly as a statute to protect data is still awaited., and it is hoped the same may provide requisite guidelines to make wearable technology a user friendly choice on all aspects.

Digital Fashion in India:

According to a report published by the Internet and Mobile Association of India (IAMAI), in 2022, about 346 million Indians engage in online transactions including e-commerce, and digital payments, a record increase of 51% from 230 million in 2019. The report further revealed that presently, there are 692 million active internet users in India, making it the second largest digital population in the world. Thus, in a country with deeply penetrated access to

internet, involvement in the virtual space is argued to be high. International as well as national fashion brands are exploring several ways to mark their presence in India in the digital space. Trademark applications for protecting brands in the Metaverse are being filed by famous international fashion labels in the relevant classes.

Renowned home-grown designers are entering the virtual space. In collaboration with Aditya Birla Fashion and Retail Limited, India's top fashion brand, Masaba Gupta, a known designer is set to develop a 'young, ambitious and digitally driven collection' across affordable luxury segment in fashion, beauty and accessory categories. Designer labels such as Anamika Khanna, Raghavendra Rathore, Manish Malhotra and Papa Don't Preach by Shubhika, have also launched digital collections, label Pankaj and Nidhi also collaborated with the Fashion Design Council of India, to produce NFTs on WazirX. India also has its first Meta Influencer, KYRA, based in Mumbai one of the many steps into the meta fashion industry, with more than 1 million followers on Instagram. With influencers being role models for many, in addition to their moral responsibility, India has introduced laws regulating influencer marketing with a view to protecting consumer interest through the Central Consumer Protection Authority's Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022. Quick to cope up with the pandemic induced restrictions, India moved to its first digital fashion week in 2020 setting pace for boom in digital fashion.

While the process to join the meta-wagon has commenced in India, developments can still be characterized as baby steps. Conducting virtual fashion shows or launching a few NFTs by themselves may not allow Indian designers to keep pace with the growth of the fashion industry globally. Several brands in India, driven by consumer sentiment, don't seem to see the need to enter the meta-space. perhaps On account of the fact that being a developing nation, Indian consumers may not yet be ready to make monetary indulgences in virtual belongings. Thus, the gap between the number of digital users in India and purchasers of digital products is yet to be bridged. Having said that, transformation in mindset already appears to have started with a few consumers of digital goods in India. For instance, a Bengaluru based man owns over 200 NFTs including one by Manish Malhotra, and feels proud to own as 'the First Indian Fashion NFT', he bought for USD 3000.

Conclusion:

When it comes to textiles, India has a long, varied and very rich tradition. From handloom silks to block printing to chintz to handmade embroideries, from pashmina shawls to cool linen, India is an abundant mine to source ideas from for the fashion industry. With one of the highest number of consumers indulging in digital purchases, it also holds potential for brands to monetize their creations digitally. According to a recent report by a Boston Consulting Group, a rapid increase in digitally influenced shoppers has been witnessed in India and the online retail spending is expected to grow six times to USD 300 billion by 2030. Several home grown fashion brands are also making it to the global audience. Recent mergers and acquisitions by Indian conglomerates Aditya Birla Fashion & Retail Limited and Reliance Brands Limited of renowned fashion brands such as Sabyasachi Mukherjee, Tarun Tahiliani, Masaba Gupta, Ritu Kumar, Anamika Khanna and Rahul Mishra makes the Indian fashion industry a promising powerhouse to reach global heights. As the need of the hour is to engage young consumers -

GenZ as potential and prime users of luxury/ fashion - designers in India are taking steps to increase digital engagement. Akin to the situation globally, where brands are still ascertaining ways to maximize benefit of the metaverse, the first and right steps although slow, already appear to have been taken in India.

Biography: Radha is a researcher from India at the Thinking Watermill Society. She pursued her Masters in Fashion Law from LUISS Guido Carli, Italy. She is a Managing Associate at **Remfry & Sagar**, an IP Boutique in New Delhi NCR, India and arguably the second oldest IP Firm in the world.