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TECHNOLOGY IN FASHION

The purpose of the research is to show how technology impacts fashion industry and to find out the pros and cons of smart clothes and their role in human life.

The object of the research is technology that is usually first functional, rational, and empirical, and fashion that is more aspirational, narrative, lyrical, creative, and inspired.

Methods and techniques. My work is based on the method of information analysis.

Research results. It was the great Coco Chanel, who once said, "Fashion changes, but style endures." Technology changes along with fashion. With the amount of innovation happening these days, it kind of makes sense to bring the two together. After all, technology opens up so much more possibilities. [2]

The fashion world is changing. Technological advances are being pushed to the limit. New developments provoke to think outside the box in order to come up with new solutions. [4]

The real possibilities of fashion technology lie in ambient computing, which is essentially computing that happens "in the background." Ambient computing is an essential part of the data collection process because it works without your undivided attention. Ambient computing is particularly fascinating when applied to the fashion technology lens because it means we could collect valuable data on our own bodies – the vehicles of life.

Outside of the advanced research done at sports science institutions, we don't have much data on the average human body and its kinesthetics. We don't fully understand how it functions in contemporary environments. But, think about what

it could mean for our health. For runners, it could help correct running technique by pinpointing areas of excess stress on the legs. Thus preventing future injuries. More universally, this data could be used to help alleviate minor back pain rooted in one's posture.

Fashion technology could play a major role in helping us live longer, healthier, and more enjoyable lives. Breathable fabrics you never need to wash, clothing with digital displays, and Smart Fabric are all within the scope of fashion technology. The textile industry is in for an exciting facelift – removing friction by transforming the garments themselves into an interface. [3]

Touch-sensitive textiles, which we'll call Smart Fabric turns our clothes into a computer interface. By weaving conductive threads within materials, Smart Fabric can send and receive touch-based signals very much the same way your touchscreen devices operate.

Google foreshadowed this fashion technology with their initiative, Project Jacquard. Teaming up with Levi's, they turned a regular jean jacket into a technological interface. Intelligent, capacitive fibers woven into the cuff of the Commuter Jacket allow you to interact with the arm of your jacket to play music, get directions, answer calls, and a plethora of other abilities. Google's smart jacket is just one innovation in fashion technology – a future trillion dollar market that will range from jackets and socks to purses and gloves. They can all be innovated upon. Imagine tugging on the strap of your purse a certain way to signal authorities you feel unsafe in a situation. [3]

Perhaps the most famous example of self-adjusting smart clothing on the market is Nike's HyperAdapt shoes, which boast "Back To The Future"-inspired self-tying laces. Stars such as tennis champion Serena Williams and soccer icon Cristiano Ronaldo promoted the first edition. Initially priced at $720, the highly coveted shoes are being sold on the secondhand market for more than $2,000 per pair.

Microsoft has also explored the technological applications. Researchers previously unveiled a prototype smart scarf that users can heat up using a

smartphone app.

South Korean electronics giant Samsung has a myriad of offerings, including a golf shirt that can warn wearers of the weather conditions and a solar-powered bag that can charge cellphones.

Meanwhile, Under Armour has brought to market shoes that track a runner's data through GPS. Shoes from the Under Armour Hovr line start at $110 and go as high as $140. The company also sells "athletic recovery sleepwear," pajamas that beam infrared radiation onto the wearer's body to boost recovery.

But Will Anyone Actually Buy Smart Wear? For mass adoption to occur, consumers will have to overcome a few anxieties. For one, battery-powered clothes, like phones, will carry the risk of exploding. But given the ubiquity of smartphones, wearables, and other personal gadgets, consumers have shown they can live with that risk.

Also, smart clothing will not be cheap. Ralph Lauren's self-heating jackets first went on sale for $2,500 and were later auctioned on eBay for $6,000. But consider that wildly successful Canada Goose (GOOS) sells parkas that aren't self-adjusting or laced with circuitry for $1,000.

Google believes smart clothing technology trends make an attractive feature for consumers, who might see connected clothing as a practical investment. And Loup thinks that a decade from now smart apparel products will be "almost the standard." But even before smart clothes catch on with consumers, the path to mass adoption may begin with industry.

In the next five years, sectors like health care, pro sports, the military and emergency services like firefighting will adopt intelligent clothes, predicts scientist Pekka Tuomaala. He leads the Smart Clothes 2.0 project at the VTT Technical Research Centre of Finland. The scientist adds that companies have signaled particular interest in self-heating features. "We human beings tend to be lazy," he said. "If our clothing would be able to help us we would most likely use such products and services."

IDC's Llamas also sees heavy industry putting connected clothes to use. For example, supervisors will be able to track the heart rate of workers and know if a break is necessary.

The military is another obvious candidate for such technology. British defense giant BAE Systems has developed an alternative use for e-textiles. Its Broadsword Spine is a power and data network built into clothes using conductive fabrics instead of wires and cables.

The technology allows electronic devices to be plugged straight into a vest, jacket or belt. Custom-built connectors hook directly into power and data sources via a USB port. It saves an estimated 40% of weight, a major benefit for infantrymen already loaded down with gear. [1]

Conclusions. Fashion Design and Technology are inextricably linked to problem solving. The type of creative technique employed depends on the problem to be solved which in most cases directly relates to the customer who will purchase the garment designed. As such, the statement that a need for status is what drives the consumer's choice for wearable technology, becomes something worth investigating further, in order to understand.

It's important for designers to utilize technology to craft products with purpose, that are good for the environment but also aesthetically pleasing and affordable. Only then will the fashion industry move toward a more sustainable and smarter future.

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