

Materials Innovation



HOW CAN SCIENCE, TECHNOLOGY AND FABRICS SPARK OUR SOCIAL IMAGINATIONS?

Raymond Loewy, an early Vogue illustrator, The Father of Industrial Design, and the creative force behind iconic visual branding for the likes of Shell, BP, Studebaker, Lucky Strike and Coca-Cola's vending machines, once said, "The important improvements and innovations in clothes for the world of tomorrow will be in the fabrics themselves."

Seventy-eight years later, his vision of a day when technology would play a role in the clothes we wear has arrived.

Today, we have the scough, a scarf that claims to filter and clean the air you breathe. Adidas' Climachill collection has titanium and aluminum woven into garment fabric to give wearers a cold sensation when working out. Smart shirts by France's Cityzen Sciences feature a built-in heart monitor, GPS, accelerometer and altimeter. And then there is maybe the most futuristic piece of clothing – especially for anyone whose reading of the future has been shaped by science-fiction great Arthur C. Clarke – with the synthetic spider silk of the North Face Moon Parka.

Depending on the pundits you subscribe to, this market – Functional Fashion, E-Textiles, Smart Fabric, Smart Clothing – is slated to be worth \$3 billion by 2018 or \$9 billion by 2024. But because our notion of 'smart' has been so shaped by living in the digital age, chances are that some recent materials innovations have not been included in market estimates. When 'smart' is just smart and not necessarily hiding a battery pack in the back of your shirt or having to pull out your cell phone every time you want to control your clothes or see your data, then innovations like spider silk, sustainable water repellency or initiatives to reduce the environmental impact of fabric manufacturing will likely increase those numbers even further.

Ultimately, the definition of smart should be based on how these and other mergers between science – not necessarily just 'technology' because we typically limit our thinking on that to gizmos – and fashion offer consumers the ability to excel in living. Currently, the market is split between two ways of doing this: Performance and Performance.

If you're in the first business of Performance, you are very much focused on helping your consumers achieve a desired aesthetic effect: fabrics that light up, change color and perhaps have features that operate by harnessing energy from movement, vibration, sound or heat. Think: London duo Cute Circuit's show at New York Fashion Week where models controlled what their dresses looked like using a cellphone.

If you're in the second business of Performance, which most of this industry wants to claim as its commercial territory, you are very much focused on athletic or extreme pursuits where the clothes we wear help us achieve specific ends: regulating body temperature, reducing wind resistance, controlling muscle vibration, monitoring heart rate and activity. Think: Ralph Lauren's Polo Tech collection from a couple of years back. You know, the one nobody has purchased a piece from since it first debuted.

But there is every reason to believe that a third business of Performance will soon emerge out of the wearables industry, one that will do so when both the technology and the ideas of the industry mature enough and begin to produce more than spins on existing functions (like a heart monitor) built into existing cultural forms or artifacts (like a bracelet). Part of the trick will be getting all the supposed innovators in wearables and e-fashion off the Quantified Self kick and on to more pressing matters.

That third business – and even the fourth or fifth one after that – could be focused on any number of needs or themes, with or without the current gizmo approach: fabric that protects the wearer from the harmful effects of the sun, poor air quality and other environmental threats of the future; fabric that somehow communicates, perhaps to everyone or perhaps only to others wearing the brand; fabric that doesn't measure how we're doing but knows and does what we need done to somehow 'improve' our performance.

So how do you identify those needs or themes and become the brand that ushers in the third age of Performance? And what will your Performance do for us as consumers?

We believe you begin by thinking big: your brand, your purpose, your meaning, your vision, your capabilities, your business, your future, your consumers and, of course, the world. Only by cultivating more insights, synthesizing more data, knowing more culture, gathering deeper signals of change, assessing less obvious business opportunities, and building critical self-reflexivity into your entire process will you be able to make a real and meaningful commercial contribution to the transformation that this emerging market will certainly usher in.

We also believe that the beginning of your beginning should begin by you answering 4 questions:

Do you have a 'smart' strategy to infuse fashion with function through technology?

Does that strategy account for and support the mythology of your brand?

Is that strategy founded on an understanding of culture and consumer behavior?

How will your innovations align with, impact or transform culture and consumers?

Answers to these 4 questions should give you a clear sense of just where your beginning is, either in the emerging smart market itself, your process of currently occupying it or your goal of entering it in the future. But

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before answering them, here are 4 ways that might help you think a little bit bigger about the entire topic – about what is the challenge, the opportunity, your strategy for it, and the role that your business could play in how we dress, how our clothing enables us to somehow live better, and how that enabling might forever change us as both people and cultures.

"We are all cyborgs now"

If it's not designed to change us or our lives, what's it designed to do?

More than a quarter century ago, this was the proclamation made by Donna Haraway. A prominent feminist scholar in the field of science and technology studies, she knew then what many of us are only now realizing: that technology has changed us and will continue to do so. From a spear in the hand to eyeglasses on the face to a Fitbit on the wrist, it augments, alternates and extends the culturally informed practices through which the human body acts and is affected. Whatever a Smart Fabric might offer, it should be a tool that enables us to somehow transform ourselves, as good tools have always done. And whatever vein of the human zeitgeist that designers of the third wave of

Performance unveil, one challenge will be identifying how consumers want to be 'better'.

Clothes are already technology

How could a dress do what a dress does in a whole new way?

It doesn't have to have bells, whistles, batteries or a Wi-Fi connection. If it involves material culture (a thing that we've made), a technique (a way of doing or using) and a socio-technical system (a distinct activity that emerges from material culture and techniques), then it's technology. Clothing is one of humankind's oldest technologies. It has been designed and re-designed to protect us from the elements, give us a sense of belonging, mark our status, communicate with potential partners and allow us to execute self-expression as a member of a desired social group. As original technology companies, fashion brands need to catch up on their category, develop a POV on just what technology is today and could be tomorrow and, in the pursuit of materials innovation, explore how past function might inform possible futures.

Look to expression and experience

How do we help people be better versions of themselves in the world?

Today, most wearable technologies and their designers are focused on the goal or the very human fantasy of physical self-optimization. Quite simply, they are meant to improve us. But because all technologies hold the promise of opening new

social systems and of raising imagined communities, however, there are bigger, more human and more cultural opportunities to consider than just the optimization of the body. Given how existing the technologies in our lives today support greater connections between people than ever before, emerging fusions between fashion and technology might help us experience the world and express ourselves in new, improved and more social ways. Or, considering the aspirational nature of much fashion, they might help us engage in new expressions of status or knowledge.

Start with the symbolic

Ask not what technology can do for your brand, but what your brand can do for technology. Rather than taking inspiration from the functional or technological cues that the category currently presents and then trying to back-end needs and Reason To Believe into them, consider the symbolic world that your brand is a part of or wants to be a part of as a starting point. Staying true to your brand will serve you and your consumers best. So start the conversation on technology by clearly articulating the meaning and purpose of your brand. What do you stand for? Believe in? Want to 'do' for your consumers? Or, perhaps, more important: What was your founder's passion or purpose? Only by critically examining why (and how) your business is a successful business will you be able to truly discover a strategy that will serve you and your consumers best.

Because clothing is such an ancient technology it is cultural, social, symbolic, filled with meaning and,

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to put it plainly, very powerful. Whether Creative Directors and their teams of designers are pursuing inspiration from a nostalgic past or rushing straight into the future for next season and beyond, most know that clothing and fashion are very much about our social imaginations. So, what social imaginaries could your brand one day make real through this fusion of fashion, technology and science?



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For more information about Gemic and how we might be able to help you with your biggest existential business challenges please visit www.gemic.com or contact Johannes Suikkanen.

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