

TEXTILE VISIONARIES

Technologies and Materials for a New Generation of Design

Cloth, as we know it today, is already becoming a thing of the past. A fresh dialogue is unfolding between the fabrics we make and the technologies we use. Future fabrics will make us faster, lighter, brighter, greener and cleaner. They will provide us with multi-sensory skins and wearable technologies, yet be comfortable, breathable, elastic and protective. Technologised textiles will equip the user with completely new physical and intellectual abilities, or enhance existing ones.

Future garments will be fully customizable and able to change colour and shape, as well as create exciting new textures. Transformable designs will enable a single textile to fulfil multiple roles. Fabrics will change shape to keep the wearer comfortable and reconfigure to meet the needs of the activities they face. Smart systems will be integrated into the fabrics we wear, effortlessly merging our personal and professional selves as they help make everyday life flow more smoothly.

As this new generation of textiles dawns, my talk sets out to explore some of the designs that are taking the industry in new directions. Beginning with a look at textiles that integrate technological systems with everyday apparel and performance garments, section one reveals how electronic textiles can enable clothing to function like computing devices and transmit data via conductors, switches and sensors. Tiny silicon chips and sensors can be downscaled to fibre-size and interwoven with plastic-threaded chip carriers and minute circuit boards. The wearable hardware that these textiles create can sustain a range of software applications, and like most computer devices, easily adapt to changes in the computational and sensing requirements of an application.

My talk will show that as a new generation of designers envisions the forms, shapes and materials of tomorrow, garments are being transformed from passive substrates into active technological tools. Future fashions will connect individuals with wider systems as well as each other, and enrich their lives in ways we never could have imagined before. Like the skin we were born with, the hi-tech clothing we wear in future will be sensual and beautiful, fit perfectly, and feel completely natural.

Bradley Quinn