

UC Irvine

2016 Conference Proceedings

Title

Sapient Textiles: Materiality, mediation and embodiment, Abstract

Permalink

<https://escholarship.org/uc/item/8xp8d34p>

Author

Joseph, Frances

Publication Date

2018-01-08

Peer reviewed

BODY of KNOWLEDGE

Sapient Textiles: Materiality, mediation and embodiment

Frances Joseph

The traditional role of textiles mediating between body and environment is being reconsidered in light of technological developments and new theoretical perspectives. The notion of skin as a sensory interface or ‘fringe of the virtual’ has been recognized in digital embodiment theories (Hansen, 2006). New textile processes involve both physical and digital dimensions, not only in terms of the processes of making that constitute textiles as material artifacts, but through technological innovations that have contributed to the development of smart textiles that can sense, communicate, respond, and even harvest energy. These ‘second skins’ and the new frameworks and sensibilities, produced through such technological infrastructures are the focus of this paper. Smart textiles are considered in terms of materiality, mediation and embodiment in relation to a series of practical projects exploring the development and testing of knitted e-textile structures.

The emerging field of electronic or e-textiles is being lauded for its economic potential (Market and Markets 2013; Amed 2016), although there are still many technical and manufacturing problems in bringing e-textile products to market. The biggest challenge they may pose, however, is to notions of human subjectivity through a radical repositioning of bodies, textiles and computing. While the focus of most research into e-textiles has been technical, the deeper theoretical implications of these ‘wearable, washable, drape-able computers’ (Dias and Cork, 2013) require further investigation in the challenges they raise to dualities of material and immaterial; exterior and interior; body and mind; object and subject. The notion of ‘sapient materiality’ where both consciousness and cognition are part of the specifics of materiality rather than defined in opposition to a material world (Miller 2005) is considered across a series of three physical scales ranging from the molecular to the structural to the artifactual.