

Human-object interaction  
Textiles - new technologies

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### Abstract

The aim of the doctoral dissertation is to show that the use of intelligent materials in clothing plays a key role in the development of the user's "sense of taking part" and can be used to broaden the experience of clothing. The design proposal of the doctoral thesis was based on the theory of extended mind by Andy Clark and David Chalmers, which assumes that material objects take over some part of our thinking and can be treated as external elements used in the process of perception.

The design work, which is an integral part of the dissertation, is a proof of concept. It consists of two polysensory silhouettes using the phenomenon of biofeedback, signaling psycho-physiological changes taking place in the user's body. The intelligent materials used in them are supposed to stimulate cognitive involvement and mindfulness - the aforementioned sense of taking part. The designs act as a sensory prosthesis, at the same time becoming a starting point for a new discussion on the role and function of clothing. The materials used in the design constitute a kind of bridge between what our skin knows and the world of advanced technology.

key words:

fashion-tech, smart materials, biofeedback, sense of taking part, sensory substitution

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