

Key Issues In Sensory Augmentation Research Workshop

Position Paper: dancing at the interface

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Movement, experienced as impulses, flows and forces, is the unifying bond between the mind and the body, and sensations are the substance of that bond. (Juhan, 1987, p.xxv)

As a dance artist, my practice lies mainly within western Contemporary dance idioms, informed by somatic movement and bodywork practices. Described by cognitive psychologist Kate Stevens as a “microcosm of cognition” (2005), dance is at the core of my practice-based PhD research, which also engages philosophy and technological mediation to explore embodiment.

My experiences as a performer and a choreographer range across a broad spectrum of work. Over the past decade I have worked on a number of projects incorporating both high and lo-tech methods for sensory augmentation, from brown paper, puppets, string and fishing-rods in a Philippe Genty production to interactive installation environments employing highly responsive motion sensing and tracking systems, to motion-capture.

My experience of performing within *Halo* (1997), an interactive installation work by visual-artist Simon Biggs with Stuart Jones in which projected visual imagery and sound were manipulated according to the interactors’ movement and spatial location, was of an altered sense of self and agency as the smallest movements effected disproportionate changes in the environment, coupled with a paranoia at being within a surveillance system over which the degree of my control was unclear.

In my solo work, *I am, I was (a dying swan)* (2001), the taut and anxiously repetitive choreographic vocabulary evolved out of the constraints of working within a live video projection system, using 3 video cameras and projectors to establish an “image-decay” series. More recently, *bodytext* (2005) employed real-time motion-capture data to manipulate the facial expression of artist Arthur Elsenaar, through a system of electro-stimulators, and *Blow-up* (2008) was an interactive dance/installation work, employing real-time movement data capture and manipulation.

There is a wealth of works engaging dance and technologies including by Troika Ranch, Susan Kozel, Carol Brown and Wayne McGregor, which demonstrate the potential for technologies to augment and extend the senses. However recurrent concerns for me are the encumbering nature of much hardware, that in some high-tech environments and interfaces dancers become agile ‘mice’ or ‘manipulators’. and an emphasis on the visual, while the lived-experience of the dancer largely emphasises the visceral, the tactile, and the kinaesthetic. I am therefore focusing the early stages of this practice-based research specifically on the “sensuous surfaces” (Sheets-Johnstone, 1966, p.80) of dance, employing no- or lo- tech interfaces.

danced process #1 (2008) was a solo-work, talking-while-dancing. The aim was to create a space and situation for a dance-led inquiry into embodied cognition whereby the dancer would be “embedded-in, and actively exploiting, the local environment” (Clark, 1999). This deceptively simple task revealed complex relationships of performer/performance, viewer-viewed and the cognitive demands placed on both performer and viewer (watching-while-conversing, and in some instances, also dancing). It uncovered interesting questions pertaining to gesture: for instance, what happened to co-verbal gestures when thinking-for-speaking shifted into talking-while-dancing?

In my current work, *danced process #2*, I am exploring the interface between dancers, and ways to transfer some aspect of the impression left by a dance from one individual to another. This also requires scrutiny of interfaces between dancers and dance, between performer and performance, and development of methods and ability to 'language' the tactile and visceral elements of the lived experience of dance.

I am working with dancers who are kinaesthetically very aware and adept at attending to subjective perception of movement. In this series of danced processes they are attuning their senses and 'cognitive agility' to attend to the "form-in-the-making" (Sheets-Johnstone, 1966, p.36) of a dance improvisation and simultaneously give verbal report on the experience (framed in words, as opposed to breath or sound-scapes). In one study, another dancer then moves in response to this spoken report, or to visual, tactile, written or drawn report following the improvisation, focusing not on repeating the sequence or the bio-mechanics of events and actions, but on the impressions left by the impulses and sensations of the experience.

The tactile report is fascinating. After receiving only sparing fragments of information, dancers experience augmented sense of self, of disembodiment or of being 'invaded'. When they begin moving again, they feel as if they are moving according to different organisational patterns, relating to the other dancer.

I have been exploring methods for recording and reporting these fleeting phenomenological experiences; Claire Petitmengin's second-person interview techniques offer valuable insights and tools for refining these methods.

My research aims, through employing heuristic methodology to "lay down a path in walking" (Varela et al, 1996); this path seems to relate and lead towards some of the questions concerning technologies of this workshop.

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