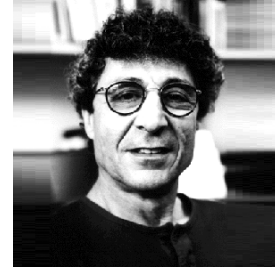


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A journey from the physical to the virtual and back again

The initial pursuit of the journey from the physical to the virtual and back again is based on a unique on going research process that had to be conceived, constructed, and tested over a period of five years. It included several technologically mediated productions, design elements, performance space, content and meaning.



Abstract:

Dance practitioners, choreographers and artists are traditionally engaged in an on going process specifically designed to discover how else the human physical body can be challenged and move in so many ways that are yet to be conceived. This on going practice takes place in the physical realm/space whether being performed in a theatrical, alternative or site-specific space. The technologically charged mediation employed in the pursuit of this on going research and work such as the use of sensory devices, wearable garments, smart intelligent textiles and computation is dramatically affecting the outcome of what we currently know as formal dance. The perception of what is possible and or what it might lead toward strictly as organization of bodies- physical and virtual - in space and time - are re-examined, allowing us to greatly contribute to this very important effort and other related new options. Some of the research conducted by several teams of artists' technologies and scientists from around the world include multiple prototypes of wearable garments/computers, which are placed on the performers body, responding specifically to the ways the physical movement is pursued. It includes several camera captures, sensory processing, conductive intelligent fibers, microelectronics and computerized 3D animated counterparts. The performance and design processes are monitored in real time via sensor-motor tracking systems that are continually outputting real time biofeedback for the purpose of augmenting all aspects of performance.

In my own research, as I continue to explore the use of technological enhancement, additional important elements/questions are emerging and must be answered in order to better understand the way to accomplish these goals. To-date, these technologies typically respond to our direct commands for well-formed and fluid actions, but not to our spontaneously evolving inner desires, emergent ideas, and heterogeneous innovation that can make the technology more human, responsive to our specific and familiar behavioral patterns. Questions arise as to how do we arrive in our understanding and skill so we can develop such responsive, intuitive and sensitive systems? One possible option that I am currently researching suggests that it can be achieved through the development (in progress) of a highly sensitive human gestural, recombinant knowledge and space visualization system comprised of video motion, image tracking devices, and sensitive detectors that are inclusive of multiple sensory touch-based technologies.

The creation of computer-animated cyber characters, virtual reality/the immersive body, wearable computers, and electronic garments as medium for inscription suggests a potential future world of fully blurred boundaries. Put together, I am experiencing a world of new possibilities: animated, cyber-performers move, deform, and re-arrange themselves, augmenting the dimensions of expressiveness/meaning during performance. The cognitive approach produced by thinking in/out of these bodies does similarly trigger changes in consciousness, affecting content and virtual story telling.

The future use of the virtual body in work and in play:

My ongoing investigation of future uses of the virtual body whether in performance and or in play, centers both on technologically-mediated interaction between a physical human/performer and computer-generated cyber human/performer/player. Real and virtual worlds are blended and simultaneously experienced, distinguishing the system from a full immersion using VR technologies where the visual input of the immersion is wholly algorithmically generated. The term “virtual reality” itself (using the term to refer to a range of experiences distinguished from VR as a specific set of technologies) suggests a non-contradictory but paradoxical blending of two worlds. Virtual realities vary in degree of immersion from web surfing (and relationship building) in cyberspace to the full sensory immersion of a VR constructs. These experiences often call into question fundamental perceptions of space, time, embodiment, and identity: the building blocks of how we cognitively construct (visualize) the world in which we operate. These experiences can be powerfully affecting to the participant. If virtual realities of increasingly immersive power are to be used for scientific play or performance visualization, an understanding of these subjective human experiences needs to be factored into the design process. This analysis steps outside of a dance performance experience as aesthetic object per se and examines it as a visualization whose subject is the interaction of the virtual (perceived) and the real (physical) as categories by which we organize and describe experience. The data visualized is created in real-time by the visible interaction of human and computer generated-characters/performers. The abstract and elusive categories of 'real' and 'virtual' are modeled in the multi-sensory modalities of play: visual, sonic, kinesthetic, and perceptive. Visualization reveals and deepens the complexity of the interaction between the physical and the cyber counterpart.

Ideas related to the creative process:

In the advanced development phase/stage of this process I am generally not thinking in logical or linear terms. My lines of thoughts are expanding in many different directions. I seek to fuse the boundaries between the human physical, architectural, technological discourse with live performance strategies in order to offer an intense structurally improvised performative experience. I am utilizing the character and life of a forever changing text/narrative as the primary source for virtual story telling. This strategy is designed to be experienced within the context of an unfamiliar environment (to the user) that I am continually exploring as my work unfolds. My exploration flutters around subversive multiple sensory wireless wearable garment/system and additional wireless

video cameras. My intention is to utilize and integrate these digital technologies/devices into the movement/choreographic and design process in an environment used initially in an alternative performance space. All aspects of design and performance related issues are investigated in this given space with particular emphasis placed on issues of real and perceived boundaries. My interdisciplinary practice focuses on researching intelligent, self-generative methods, which bring into the choreographic/movement process techniques employed by other art forms such as architecture, electronic/interactive music, and captured video information that can be manipulated in real-time. These practices could provide useful *vocabularies*, terminology and concepts which could expand the choreographic process by adding to its available compositional methods without radically altering its initial definition - the use of time, space and dynamics towards the production of meaning.

Coming back to reality:

A very strong desire to shift away from old paradigm and from the predictability of imbedded linear thinking is taking place. It is found to be totally insufficient in understanding the behavior of our handmade, sophisticated interactive systems. Consequently, we are drawn back to continually experience and explore how the specificity of digital technologies may be used to change our habits of thinking, altering long-term tendencies, organizational patterns, and our ways of work making in quite dramatic ways. The inherent newness, trepidation, and jubilation lie in the way we embed contextual and thematic information in order to discover what is possible within this mixed environment.