

## **An Arc of Bodies and Technology; The Search for Authentic Connection**

By Troika Ranch, Dawn Stoppiello & Mark Coniglio (April 2008)

As Artistic Directors of Troika Ranch, a group dedicated to the integration of digital media with live dance performance, we have often attempted to visualize the future, to foresee the relationship between our bodies and emerging technologies. Using the introduction of the personal computer as a marker, we can look back at the past 25 years and see that some imagined futures have come into being. But, often, technological developments led us through twists and turns that were as sweeping as they were unforeseen. With this in mind, we want to give an overview of where we have been, where we are and where we might go with future relationships between dance and digital media.

To consider the future, let's first think back to a year that a certain author predicted would be a despair-ridden time of repression and policed thoughts. We still aren't sure if Orwell was right or wrong: historians may in fact mark the expansion of the personal computer into the mainstream in 1984 as a questionable moment in human history. But at the time, it seemed rife with possibility.

By 1987, when we first combined computers and dance while students at California Institute of the Arts, a movement was brewing among artists and institutions like CalArts, the MIT Media Lab in Boston and Studio for Electro-Instrumental Music (STEIM) in Amsterdam. Musicians (mostly) were hacking consumer devices – everything from radio-controlled cars to game controllers – and customizing them for use in live performance. Mark was one of many innovators in this area. He created software that could “see” the data from hacked sensory devices he placed on Dawn's body, allowing her movement to control music synthesizers and other devices. It was often as simple as producing a single note or short musical phrase with the bend of an arm or leg, but seeing the body “expanded” in this way seemed incredibly powerful at the time.

We felt the utopian rush of enthusiasm that frequently coincides with technological innovation. (Think of early television and how many felt it would revolutionize culture.) But there were many questions: what was this new mediatized body? Did linking a body to a computer dehumanize it? Why was it important that the performer take control of the media accompanying her? We realized we would need to dedicate ourselves to this exploration if we were going to answer these questions *and* make dances that remained relevant and powerful in their own right, Troika Ranch was born. It seemed like we were alone, but we were not.

Several similar initiatives were coalescing around the world, we just weren't aware of each other. (You couldn't Google “dance and technology” in 1990!) Everyone in this new realm asked similar questions, and explored them deeply. The late 1980s and early 1990s were filled with research, exploration and discovery. For most of us in this field, which was eventually dubbed “dance and technology,” it meant we had to split our focus between the technology we were developing and the dances they were intended to help realize.

As we entered the '90s, things started evolving rapidly: computers increased exponentially in power and reliability. The Internet emerged and digital dance artists worldwide "discovered" each other. Themes such as a growing sense of isolation, the dangers of omnipresent surveillance, and the slippage of identity through multiple online personalities became common. By the mid '90s, the party *really* started: the whole world has gone ga-ga for the Internet. Corporate powers rapidly entered the fray, seeing many dollar signs along the trails of bits and bytes that now link many first-world citizens. And then, something crucial happened: the radical optimism surrounding the money-making potential of the Internet imploded. This didn't just affect capitalists. All of us dancers this should say artists because not all were dancers working with technology stepped back to take a healthy, critical look at what we've been doing and why we were doing it in the first place. Seemingly only after this point the first "visible" works of dance and technology began to appear: Many are aware of Merce Cunningham's "Biped," but dozens of significant dance works by less famous choreographers were premiered in the early '00s. The dramaturgy of these works improves. The "whiz-bang" factor fades as creators use technology germane to the formal or narrative concern of the dances they are making, or create dances that are germane to the societal questions posed by the technology being used. In general, the work gets better. (Though, we would argue, a truly revolutionary dance and media work has yet to be made. It is likely that this achievement will fall to a younger choreographer who has grown up with mouse in hand.)

To bring us to the present, we observe an important and recent transformation: much of the technology researched and developed by the dance and technology specialists over the past 20 years has entered the vernacular. For instance, Fredier Weiss' *EyeCon*, Antonio Camurri's *EyesWeb*, and Mark's software *Isadora*® are now used widely. *Isadora* serves as a good example because it is made for artists, not computer "geeks." *Isadora* allows even casual users to present video in live performance as easily as they might use theatrical lighting. Regardless of the tool, the notion of including media in a dance performance is more ubiquitous than it is idiosyncratic at this late date. The need to distinguish (we might say *ghettoize*) the field by labeling it "dance and technology" has lost importance. We can now get back to the meat of making dances, recognizing that hardworking pioneers have given us a richer technological palette and some new thinking about how bodies and technology play with and against each other.

In 2008, this is what we see as the real story: the artistic themes pointed to by new technology remain vital. In fact, the sense of urgency surrounding issues of isolation, privacy, and identity, continues to increase. (The Internet focuses our attention on these concerns because of its seeming ability to connect while it simultaneously distances us from each other.) The shared theme is not a technological one; instead, it zeroes in on the one constant in human history: the need, with freedom and privacy, to *make contact* with another human being.

We are responding to these crises of alienation and disconnection by seeking connections on all fronts – including the virtual. This search is a natural outcome of how cultural groups have changed over the past hundred years. Prior to the 20<sup>th</sup> century, cultural groups were

large, defined by geographic location and religion. We have seen the size of cultural groups collapse as the means of presentation changed, from theater and cinema (large social group), to radio and television (family group), and now to the Internet (the individual). The evolution of the artistic space is following this pattern -- transitioning from localized spaces targeting a geographically situated group with certain shared values (theaters, cinemas and museums), to a new space defined only by the shared value of popularity – as seen in post-globalization, virtual spaces like MySpace, YouTube and Second Life.

What will be crucial for all of us in the dance community is how these “social networking” technologies expand into the future. It is highly probable that a technology will be developed that allows a person sitting at a home computer to experience a live theatrical performance in a way that is indistinguishable from being there physically – down to the ability to turn one’s head to look at a particular area of the stage. While we are not suggesting that “brick and mortar” performing spaces will disappear (the need for connection will still draw people to gather in a theater, and the dancers will still need a space in which to perform), we are suggesting a kind of *SuperYouTube* that would allow viewers to fully experience a dance performance from anywhere in the world. Such a technology would allow companies and presenters to connect globally with their “friends” and to share their work with a sense of veracity and liveness that a video clip simply cannot impart. But, we must also question what will be lost in such a scenario. Regardless of the realism of the representation, does a performance that focuses on the relationship of bodies in space lose meaning when its viewers share only virtual space?

Let’s go a step further. Some of you may be aware of Second Life (SL), a “massive online multiplayer” simulation in which tens of thousands of people can explore and experience a computer-generated virtual world. To use it, you first custom-design an “avatar” – a computer-generated representation of yourself. Then, you can enter the world and do what people do: explore your surroundings, buy property, make art, and even fall in love. Choreographers have already started presenting dances in SL, but the graphic representations are currently less than fully realistic. It will not be long, however, before SL or something like it achieves a level of realism that very closely approximates an experience in “RL” (i.e., real life). But consider how dances will change given that the only limiting factor is the software used to present the “bodies” of these imaginary dancers. New choreographic ideas will certainly emerge for a “dancer” whose body is unrestrained by the laws of the natural world. But, as stated above, we’re left with the essential questions of presence and the importance of the organic body. Are virtual connections meaningful ones? What happens when we lose the sweat? At the same time, we must also ask if we overvalue organic, physical connections. The youth of today don’t see their electronic bodies as a reduction of a “real life,” but rather an extension to it.

There is one thing we know for sure right now, thanks primarily to the Internet: 20<sup>th</sup>-century models of creation, curation and presentation are breaking down. The old model goes like this: the virtuoso creates, experts curate and amateurs view. In this model, the public gives credence to the specialized knowledge and skills of creators and curators, allowing them to decide what is important as they impose their expert shared values on what is made and seen. Now, thanks to the global connectivity of the Internet and widely available hardware and

software, amateurs create, distribute and view, with no gatekeepers in their way. As a result, the new curation is a de-facto one, based solely on popularity; an indicator of shared values to be sure, but one that requires no deeper understanding of the topic than “I like/don’t like it.” (The widely forwarded email in the office serves as a perfect example.) We lose something important, though, when curation is simply a popularity contest. It means that dances at the edges of the bell curve of general interest will be neither supported nor seen – Cunningham would never have emerged if popularity were the single rubric by which a dance’s quality was measured. Still, to deny the importance of the emerging “culture of the amateur” would be to deny contemporary culture itself.

If there is an answer, it is this: all modes of presentation and interaction with the viewer are valid, and we simply must accept and embrace all these models in the future. Clearly we are in flux between an old and new space. While we may feel a reactionary or nostalgic desire to maintain the status quo, it simply won’t do. The evolution of our ubiquitous desire for connection is inevitable and ongoing. As we continue to globalize we must try not to value one mode of experience over another because of any prejudice. We must continue to develop and present works created by specialists while simultaneously encouraging the amateur movement to flourish. Both can inform each other, because both can tell us something new about the human condition. In the end, creators and presenters already know about the key desire we’ve focused on; they know that artists want to connect with people, and people want to connect with each other. If artists and presenters remain mindful of this, and keep their ears to the technological ground, we will grow and adapt, joining our audience in spanning the physical and virtual world.

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A Few Resources:

[http://en.wikipedia.org/wiki/Dance\\_technology](http://en.wikipedia.org/wiki/Dance_technology)

<http://www.art.net/~dtz/>

<http://www.ephemeral-efforts.com/IDAT99.html>

<http://www.danceview.org/reviews/Misc/IDAT99.htm>

[www.troikaranch.org](http://www.troikaranch.org)

<http://www.exile.at/ko/>

[www.greatdance.com](http://www.greatdance.com)

[www.igloo.org.uk](http://www.igloo.org.uk)

Composer and media artist Mark Coniglio creates large-scale performance works that integrate music, dance, theater and interactive media. At California Institute of the Arts (CalArts) he developed his craft with electronic music pioneer Morton Subotnick. He is co-founder of and primary collaborator with Troika Ranch, but also works with other artists such as Laurie Anderson for whom he recently served as a video designer. He is also the creator of Isadora®, a graphic programming environment that provides real-time interactive control over digital media. He recently relocated to Berlin, Germany. Dawn Stoppiello is a choreographer, dancer and media artist who has dedicated her career to computer mediated live performance. For nearly twenty years she has created choreography for bodies interfaced to computers through sensory systems. She was

honored with a Princess Grace Foundation scholarship (1987) and received a BFA in dance from CalArts in 1989. Stoppiello performed professionally with Jazz Tap Ensemble, Chicago Repertory Dance Ensemble and Bella Lewitzky Dance Company and in 2004 received a Princess Grace “Statue” award for continued excellence in dance.

Together Coniglio and Stoppiello direct Troika Ranch, a Brooklyn, NY based company that produces live performances, interactive installations, and digital films, all of which combine traditional aspects of these forms with advanced technologies.