

Dancing with the Mouse: Format for the Future

By: Ann Dils and Lisa Naugle

[Dils A](#) and L Naugle. (2000) Dancing with the Mouse, conference report. *Dance Research Journal* 32 (1), 161-164.

Made available courtesy of University of Illinois Press: <http://www.press.uillinois.edu/journals/drj.html>

*****Note: Figures may be missing from this format of the document**

Participants found a variety of pathways through Dancing with the Mouse, a conference sponsored by The National Dance Association of the American Alliance for Health, Physical Education, Recreation and co-directed by Joanne (Jodi) Lunt and Keitha Manning. Dance concerts, technique classes, visits to local schools, as well as numerous sessions on dance and technology comprised the many conference activities. Our conference choices reflected a shared interest in understanding how the dance community currently uses technology, at least as shown at this conference, and in formulating some useful questions about the impact of technology on dance practices. Lisa Naugle (LN) comes to this process as a leading member of the fast-growing dance and technology community and an invited conference presenter. Her research interests include investigation of online methods for choreography, plus the use of motion capture and digital image processing in dance performance. Ann Dils (AD), a dance historian who writes about web-based performance and virtual dance, attended the conference as part of her research.

AD: I saw conference presentations as falling into three, heavily intertwined, areas: teaching, choreography and dance production, and the preservation and dissemination of established dance works.

LN: In the area of education, many participants expressed interest in learning how computer technology fits into the nationwide restructuring of college and university course offerings and acknowledged that the applications of distance learning and web-based instruction are especially important. In the areas of choreography and production and preservation, we are beginning to see various explorations of human-computer interactivity in CD-development of creative/ choreographic projects.

AD: I saw several CD projects related to performance and choreography. Carolyn Adams presented a project that uses CD-ROM as part of the reconstruction and study of historic dances. Adams and Julie A. Strandberg, of the American Dance Legacy Institute, are creating packages of resources including CD-ROMs of primary resource materials, dance videos, and Labanotated scores that will make reconstruction and study of dance works possible in a wide variety of educational settings. As a dance historian interested in getting people into the studio, I am very excited about using this resource (www.brown.edu/Departments/Theatre_Speech_Dance/Amer._Dance_Legacy_Inst..html).

A. William Smith presented a variety of CD projects dealing with education and preservation, but the one that struck me as most revolutionary is his *Interactive Multimedia-Dance*. The CD allows the user to combine animated figures, computer-generated environments, and sound providing a basic means of creating computer-generated dance.

Jacqueline Smith-Autard's CD-i and resource pack *Wild Child* is meant to be used in classrooms to help students perceive and make use of an established dance work as a resource for technique, choreography, and dance writing. (CD-ROM is the format familiar to most U.S. computer users. CD-i hardware operates like the game machines that attach to televisions. This format is popular in Europe and available in the U.S., especially for education software.) To get at the movement and structural elements of the dance *Wild Child*, Smith-Autard carries out an elaborate, beautifully articulated example of Laban-based movement analysis. The CD-i might

also be used to teach movement analysis since it serves as a model of sorts, pairing a dance work and analysis, and allowing multiple modes of access to both through technology.

LN: In Smith-Autard's *Wild Child*, menus are used to access any part of the dance; press pause and the video stays until the next click, giving a perfect picture in slow motion. Frame-by-frame slow motion is very clear. The CD-i comes with a resource pack that deals with numerous activities in relation to a particular dance work and includes a worksheet (80-90 pages) related to two discs. The CD-i starts with Level 1 and goes through Level 3. A teacher-training guide is also included and is designed to be used in the dance studio to do practical work. In the study of themes, there are thirty-one subsections, each with a work sheet related to content, form, music and sound, costume and set. In the study of canon, the accumulation section showed numerical variations and spatial relationships. The idea is to help students and teachers become more perceptive.

AD: Mila Parrish's CD-ROM, *Discover Dance*, also uses Laban movement principles to teach people to think about movement more thoroughly and broaden the way they integrate moving into classroom teaching. While I did not attend this session, people who did thought it was excellent. Despite the CD, look-at-a-screen format, everyone was up and dancing. I was also interested in Robert Knplan's *An Interactive Guide to Music for Dancers* and Gayle Kassing's *Beginning Ballet Technique*. These CD-ROMs might replace or augment a text and some of the seeing/hearing and comparing/perceiving work that goes on in a classroom. Both CD-ROMs teach basic skills by presenting and reinforcing information in verbal, aural, and visual forms, providing learning activities and setting up opportunities for testing comprehension.

The CDs I saw at this conference are excellent ways to present and preserve information and to teach perceptual skills. I have two concerns about CDs, however. As a dance history teacher, I'm concerned with teaching critical thinking skills. I think the interactive format of many CDs works against the development of critical thinking.

LN: Perceiving and thinking dovetail with each other. Yes, we need to think carefully about how to make the best use of computerhuman interactivity as integrated resources in courses, curriculum, and performance. In his presentation "Technology in the Syllabus: Where to Begin?" Luke Kahlich pointed out that we need to get over the "bells and whistles" and get on with content. What do we want to do with software?

AD: In dance history classes, I hope I teach students to examine their assumptions and preconceptions and those of their teachers and fields of study. I want them to understand how knowledge is constructed and to use that understanding to look beyond established knowledge and forge new ideas. I ask them to observe and analyze what they see, read scholarly writing, write critical essays, and carry on discussions. The design of an interactive CD allows users to go where they will. They never have to carefully follow an argument. It seems possible to use a CD to produce a beautifully illustrated argument, but I have never seen, say, a dance history or an ethnography done through CD.

And my second point is the problem of physicality. CDs have to be used to augment, not fully replace, what happens in the classroom. Although the possibilities for at-home study increase, physical learning still has to be accomplished in a studio, hands-on, face-to-face. Discussion is also very physical. This is going to be a problem with distance learning. While there are strategies for online discussion groups and process writing that make it possible to teach at a distance, there is something very compelling, very dance-like, about being present when people make those connections and leaps of understanding. Emoticons such as ! ("I want to comment"), ? ("I have a question"), and O ("I don't understand") are helpful, but don't have the verve of a good discussion.

LN: Whether a CD-ROM presents a nuanced discussion of ideas in the same way as scholarly writing, or not, depends on many elements such as how the writer/educator/designer/choreographer organizes the information and prompts the participant/audience through a journey of ideas, images, problem-solving events, and interactions. I think technology will push our thinking in ways we can't yet anticipate, as will the fact that computer-based dance projects of all kinds can be created by teams, computer experts and dance experts working together. Tom Calvert provided a wonderful example of the collaborative development of dance-spe-

cific technology in his keynote address, "Dancing with the Mouse: Yesterday, Today and Tomorrow." Calvert teaches at the Technical University of British Columbia and Simon Fraser University and is founder of Credo Interactive, home of *Life Forms* 3D software. His most recent project, created in conjunction with the Dance Notation Bureau and The Ohio State University, is the development of *an* interface, or translator between Labanwriter, the software package for writing Labanotation symbols and producing Labanotated scores, and the animation program, *Life Forms*. The development of this translation tool seems to be evolving in direct relation to the needs of notation.

AD: While I think adding *Life Forms* illustrations to Labanotated scores will greatly increase the accessibility of scores, I worry about losing touch with the fullness of motion. Scores have often been criticized for emphasizing structural elements over expressive elements, and the addition of *Life Forms* figures will only heighten this problem. Animated characters produced with *Life Forms* don't have the fullness of motion of live dancers. Digital dancers move expertly in space and time. Figures created with *Life Forms* or through motion-capture technology lack, at least in my eyes, weight (defined in the Laban system as a continuum ranging from strength to lightness) and flow (defined in the Laban system as a continuum ranging from a bound to a fluid use of energy). Will we continue to see and value these expressive possibilities if they're not evident in digital dancers?

LN: Digital dancers do have expressive possibilities. First, let's agree to separate *Life Forms* software and motion-capture techniques. True, both are part of computer animation, but basically motion capture works directly with the living/moving/dancing body while *Life Forms* simulates movement. There is no "capture" of the movement directly from the dancer in *Life Forms*. However, motion-captured data can be exported to *Life Forms* software. I agree with you that *Life Forms* figures alone do not have the "fullness" of motion that live dancers do but in the hands of *an* expert, the movement created can be abstracted and meaningful. The same is true for motion-captured figures. If, for instance, we were to look again at the video and CD-ROM of *Hand-drawn Spaces* (Merce Cunningham, Paul Kaiser and Shelley Eshkar) and *Ghostcatching* (Bill T. Jones, Paul Kaiser and Shelley Eshkar), which were presented at the conference, then we could debate the specific places where I see evidence of weight change/shift.

AD: There are lots of places in *Ghostcatching* where weight shift is inferred. The digital artists do a lot to suggest weightiness through the sound of footfalls and shadow, but I miss the accommodation in the pelvis that dancers have when they drop into weightiness or strength and the play in the upper torso of lightness. My guess is that the action of the spine is hard to capture because it makes so many subtle articulations. I haven't seen the latest version of *Ghostcatching*, however, and I hear substantial changes were made to the work. Let's wait for the video.

LN: Earlier you asked if we will continue to see and value certain expressive possibilities if they are not evident in digital dancers. I believe we will. After all, the scope of dance is not narrowing toward digital, rather it is expanding. I believe we will see and value additional, not-yet perceived forms for expression perhaps in the fourth, fifth and/or sixth dimension. Concerned as we are about teaching people to think critically and examine their assumptions and preconceptions, we must be prepared to recognize that current definitions may need to expand or be redefined in the digital realm.

AD: You're right, digital dance is *an* expansion of dance, not a narrowing. But there are lots of gray areas where the digital and the physical realms influence each other. In computer-mediated dance, visual elements are very important. Will choreographers working in the physical world feel they have to mimic or keep pace with the special effects and sophisticated design elements of virtual performance? How about keeping pace with bodies that don't have to contend with gravity? Dance will change as our everyday lives become increasingly reliant on technology. Assuming dance won't become a reactionary, Luddite form but will continue to help people express the physical nature of their lives, dancers will increasingly communicate about our online lives and the re-making of our bodies—physically, medically—through technology. Digital dance may be an expansion of dance, but it is also a sign of change.

LN: Yes, we may be looking at much more change as technology gets cheaper, smaller, and faster. If these changes influence dancers to increase discussion about the nature of their lives, both virtual and real, then the speed at which change is occurring will provide new possibilities not only for visual effects but all areas of communication. As an example, *Life Forms* is currently being used to sketch out choreographic ideas and create animated dance shown alone, in concert with live performers, on the Web, and on video and in film. Work is done using virtual reality and other interactive technologies to allow digital and non-digital performance to interact in real time. Given the kind of work we saw at the Dancing with the Mouse conference, it appears dancers must have skills to communicate online and consider the people for whom they are creating. In transforming the body from real to virtual environments is it with the hope that we want the experience to be felt, and/or believable, whether in fact it is real or not?

AD: I think the physicality in dances such as *Ghostcatching* is tremendously meaningful because real-life dancing isn't fully captured. Absence, after all, is tremendously moving.

LN: Absolutely. I have two last thoughts concerning the conference. First, it was nice to see that the dance and technology community is developing a history and a sense of community. Awards were given to people who have played large roles in establishing this community including Tom Calvert, Mary "Buff" Brennan, Luke Kahlich, Lucy Venable, and David Ralley. We now have a several-year track record of dance and technology conferences and we anticipate more. There will be another Dancing with the Mouse conference next year; the movement is solid and growing. Second, we haven't discussed legal issues or questions of what might be called ethical representation. The final session, headed by Madeleine Nichols, Curator of the Dance Division of The New York Public Library for the Performing Arts, and G. Harvey Dunn, a Dallas copyright attorney, concerned copyright issues. Restrictions and requirements for the use of visual images and text in CDs and on the Web are increasingly clear as courts decide cases on these matters. There are many open questions about downloading images from the Web, for instance, and rights involving the manipulation and use of that material. There are places on the Web that allow "free download" of images and sound created by independent artists who want to get their work out. How fully can these be used?

AD: I wonder if there are protections for dancers who appear in web-based dance productions. If the images can be downloaded, they could end up dancing anywhere.

LN: Another area of concern is the veracity of digital still and moving imagery. Images are endlessly alterable—an excellent situation for artists—but a questionable situation for anyone trying to understand an event. We can no longer rely on photographs, videotape, or sound recordings for "proof." It is one thing to lop out a performer to balance a publicity photo, another to lop him or her out of history. How will we critically evaluate the truth of any document? Let's agree that this discussion is to be continued . . .

Ann Dils

University of North Carolina, Greensboro

Lisa Naugle

University of California, Irvine