

DANCING TOGETHER

Two halves of a whole

Pauline Brooks

Abstract

This article will discuss how video conferencing has been used to bring together dance students from two universities from two different continents separated by an ocean to collaborate and perform together. It will focus on the performance spaces that we have codified as zones and how the creative use of bodies (particularly in the Cone of Capture and Zone of Virtual Interplay) has been used to give the visual impression of one company dancing together in a 'third space'.

Keywords

Dance performance; Telematic dance; videoconferencing.

Introduction

As a dance artist working in Higher Education (HE) in United Kingdom (UK) in the 21st Century, I have been mindful of the developments in ICT (Information and Communication Technology) and their potential to bring aspects of global networking into both my creative artistic work and to my pedagogic practice. I have become increasingly curious as to how it might be possible to draw on that technology to bring dance students together into a global collaborative learning community, and I have been fortunate to share that interest with a colleague in the United States (US), Professor Luke Kahlich. Our collective determination to investigate how we might use the Internet to bring our students together, despite the geographic difference, for the purpose of person-to-person collaboration and international communication has led to seven on-going telematic dance performance and pedagogy projects to date between 2007-2013 (see Brooks and Kahlich, 2013). The projects have explored the medium of telematic performance involving live dance performance in networked dance studio and/or studio theatre environments, with live video streamed from a web-cam, using the screen projection to connect us in a unique space beyond our institutions, otherwise separated by a distance of 3000 miles. Such technological and artistic space has allowed us to share performance synchronously in time and, as this article will expand upon, to develop distinct performance environments. Initially, Adobe Breeze was the video-conferencing package used, hosted by Temple University, Philadelphia, but by Project 2 (2008–09) the software was upgraded to Adobe Connect, and then to Adobe Connect Pro. On Project 6 (Jan-April 2013), and currently on Project 7 (September – November 2013) we are using Polycom at Nova Southeastern University in Florida and Cisco at Liverpool John Moores University to link our two studio theatres.

Telematic performance in dance education

The potential of networked communication to bring together artists and students has been investigated by researchers such as (Band, 2002; Naugle, 1998; 2001; Parrish, 2008; Popat 2001; 2006; and Risner and Anderson, 2008). Naugle writes that it is it is “the building of equitable relationships, especially over great distances where contact would otherwise be difficult or unlikely, [that] is one of the strengths of teaching and learning about dance through computer-mediated communication” (2001: 460). In addition, the use of technology means that it has been possible to investigate new creative spaces for choreography and performance (Brooks, 2010; Kozel, 2007; and Popat, 2006). Video conferencing enables a creative collaboration that involves artists “discovering new processes of composition that are cognizant of new coordinates of ‘placedness’, “ writes Birringer (2002: 92).

Choreographing dance using videoconferencing networked links has been explored by a number of artists from the early 1990s. This type of artistic collaboration has been called 'telematic art' in the early 1990s by Paul Sermon, 'distributed choreography' by Lisa Naugle (1998), 'networked performance' by Johannes Birringer (2001) and 'cyberformance' by Helen Varley Jamieson (2000). All interpretations involve a synchronous networked link between two (or more) distant sites that enables participants to communicate and collaborate. We use the term telematic performance to describe the work that we produce with HE students. It involves live performance in a traditional studio theatre setting, which, with the use of telecommunication and information technology, synchronously distributes the performers between two or more locations. Projects 1– 3, and 6-7 have 'distributed' the performance between two studio theatres (one in the UK and one in the US) while Projects 4 and 5 also involved live-streaming over the Internet involving multipoint viewers in up to three other countries in addition to the audiences in the two networked studio theatres.

Affordability of the technology is always a concern for those within the education system. Studies have shown that it is possible to work with web-cam technology that is simple and inexpensive in order to create a sense of a shared space for equally separated audiences, (Brooks, 2010; Naugle, 2002; and Popat, 2006). In her chapter on 'Technology in Dance Education' in the *International Handbook for Research in Arts Education* (2007), Parrish writes about how access to a global dance community 'heightens students' perception of dance in their external environment and broadens their dance community.' (Parrish, 2007: 1394) Through the eradication of geographical boundaries, she notes how the Internet encourages 'dance students to see beyond themselves and their surroundings and enter dialogues with the world' (Parish, 2007: 1394), We have shared a comparable viewpoint –believing that to become the artists of tomorrow, students need to be taught within an environment that embraces technological advances such as telematic performance so they will be inspired to use and develop similar innovations in their future working practice. It was this shared pedagogical and artistic philosophy that propelled us to collaborate through videoconferencing. I will address some of the practices that students in seven telematic performance projects have experienced, I will also explain the performance environments that have been created to provide the students with opportunities to perform in what Paul Sermon (2009: 1) calls the 'new global media stage'.

Methodology

Following discussions during meetings at international conferences (1998-2001), the two Project Directors first met to plan a pilot Internet project in 2006 that involved both Skype and Adobe Breeze to engage students in discussion with each other. Students in the pilot project encouraged the Directors to develop a networked dance project for the following academic year. The first project began in September 2007, with support from Audio-Visual technicians from each institution. Students were invited to join the project either for curricular credit, or alternatively just for extra-curricular activity and experience. Six UK students and five US students took part in Project 1, followed by similar numbers in each subsequent project. In the UK the students have always been undergraduate dance students, but in Projects 1-3 and 5 both postgraduate and undergraduate American students participated. Projects 6 and 7 have involved only undergraduate students. In the first instance there were difficulties with breaching each institution's protective firewall systems and maintaining live connections let alone on practical arrangements, such as finding the best position for the video web-camera in relation to the screen (theatre cyclorama); deciding on the size and organization of the projection of the live video (side by side, or top and bottom for example); and, on creating protocols for discussion between the groups with only one wireless microphone at each side while using the Adobe connect system. The move to Polycom and Cisco systems has meant surround-sound microphones, which is a great aid to discussion between the distributed groups. Persistence in the face of large institutional bureaucratic systems was important at the beginning of the projects. Finding the 'right' people in the technical and computer information services in each university was a key factor in getting the projects off to a successful footing. At times it involved senior managers actually coming to the studios to see how we were trying to use videoconferencing in terms of learning and teaching in dance with technology in order to move the support forward. The fact that we are in the seventh project is some indication of the recognition of the pedagogic value of our experimentation with the international telematic dance projects.

Each project was evaluated by the Tutor/Directors through post-session discussion, and weekly through whole group discussion. The latter were recorded for documentation purposes. Additionally, semi-structured group interviews were conducted at the end of each project. They, too, were recorded and annotated. Observation has been made of workshops, rehearsals and tutorials and used to inform practice in subsequent projects. For example, observation of student collaborations in Projects 1 and 2 was valuable in reorganizing and re-thinking how the space was being used. Initially, all of the focus was on the projection screen and the live video feed being streamed between each space. The fact that the *whole* site was a traditional studio theatre with a live theatre

audience invited to view the work was somewhat ignored. In our defence, it must be said that we were learning to be technologists (to learn to work videoconferencing systems for the first time) and politicians (across our institutions to find the right support needed to continue the projects), as well as academic tutors and creative researchers exploring new ground. There was much to learn and we have, for the most part, learnt quickly – for more on that reflective process see Kahlich and Brooks, (2009). [http://ljamu.ac.uk/ECL/ECL_docs/CETL_Journal_Vol2_1.pdf]

Exploring spaces within which to create

By Project 2 we had established an arrangement for the equipment that created a telematic performance arena within each of our studio theatres, (see Figure 1).

The video camera is placed against the cyclorama. The camera's range of capture, which we have termed the Cone of Capture is represented on Figure 1 as Zone B. Live dancers appearing in this space will be streamed onto the projection in each theatre. The other two thirds of the stage space (Zones C on Figure 1) are the part of the stage visible only to the live audience sharing the same physical space as the live dancers. It is invisible to the networked audience and performers. The camera in each space is carefully calibrated at the start of each session so that the projections of the live video streamed from each site are of equal size and are conjoined on the cyclorama. Thus it seems as if there is one large projected screen on which one half (A1) the US performers appear and on the other (A2) the UK dancers appear. The centre line between the two projections has been codified as the Zone of Virtual Interplay. It is at this point, that careful choreography of the dancers can create the impression that they share a virtual space, the illusion of a 'new space, a third space' that Paul Sermon speaks of (in Dinkla and Leeker 2002: 250). The performers in our telematic projects demonstrate clear delight in exploring the realm of 'virtual touch' provided by the Zone of Virtual Interplay, in much the same way as Dixon writes of how the interactive audience in his work *Unheimlich* display a 'feeling of occupying and exploring a shared space' and how 'the sense of virtual touch is something that delights *Unheimlich* participants, [...] a sense of the body being extended in space [...] by way of technology.' (2011: 70) Careful matching of the bodies in the Cone of Capture allows them to 'hug' despite the real distance between them, or to support a partner's head, or to 'lean' against their 'virtual' partner on the screen. (See Figures 1, 2, 3 and 6 for examples). Yet it is what Dixon describes as the "potential jealousy and conflict between the real and virtual body" (2011: 71) that since Project 2 we have sought to find a balance between. In our creative research we have pursued the means by which to establish a unity in the relationships between the physical and the virtual bodies and the relationships between the physical and virtual spaces. The traditional (but importantly, networked) studio theatres

retain their 'traditional' relationship with their live audience (seated and facing the flat stage and projection screen, see Figure 1), but share a 'new' relationship with their distanced audience through the 'fifth wall' (Spencer, 2012), the projection screen. That distanced audience may be sitting in the networked-linked distanced theatre, viewing *their* version of the performance (same projection but with different live performers in a different live space), or they may be viewing it via the Internet and seeing only the screen version of the telematic dance performance work. The exciting position for dance making that we have is enabled by videoconferencing. We have one company of two halves, who are brought together from a distance by technology to devise and then perform a work synchronously for multiple audiences. Each work is choreographed with attention to the perspectives of three potential audiences, the live audience in theatre A, the live audience in theatre B, and the Internet screen-only audience.

Discussion: Inhabiting the third space

We have a space that is very much what Sarah Rubidge in her chapter 'On Choreographic Space' (in Ravn and Rouhiainen, 2012) describes as a space "in flux, space characterised not by consistency and stability but by variation, space that is achieved through a continuous interplay through vectors" (2012: 23). Our 'vectors' include the global space linked by the Internet and identified through the projector screen and the local space defined by the physicality of the studio theatre stage, and a studio space that is divided into spatial zones according to what can and cannot be captured by the webcam and streamed via the Internet. As creators, we arrange the live and virtual bodies in our Spatial Zones and by doing so we transform the space. The space emerges according to those arrangements. The architecture of the choreography and the bodies of the dancers as they move through the spaces is a constant consideration. As I said earlier, one of the things we are constantly seeking to avoid is that 'conflict' between the real and the virtual body. One of the means by which we do this is to focus attention into the Cone of Capture and the relationship suggested between the live and the virtual dancers through the centre line on the screen. For example in Project 3, *Woven space Across the Pond* (2009) (see Figure 2), the dancers are placed in the Cone of Capture and appear to join hands on the screen through the Zone of Virtual Interplay, giving the impression that their virtual bodies are in one long line and they are pushing and pulling each other across the distance. Similarly in Figure 3, also from *Woven space Across the Pond* the dancers use the 15 metres of material to join at the centre line, again playing within the Zone of Virtual Interplay, to give the impression that the prop is becoming one piece of material.

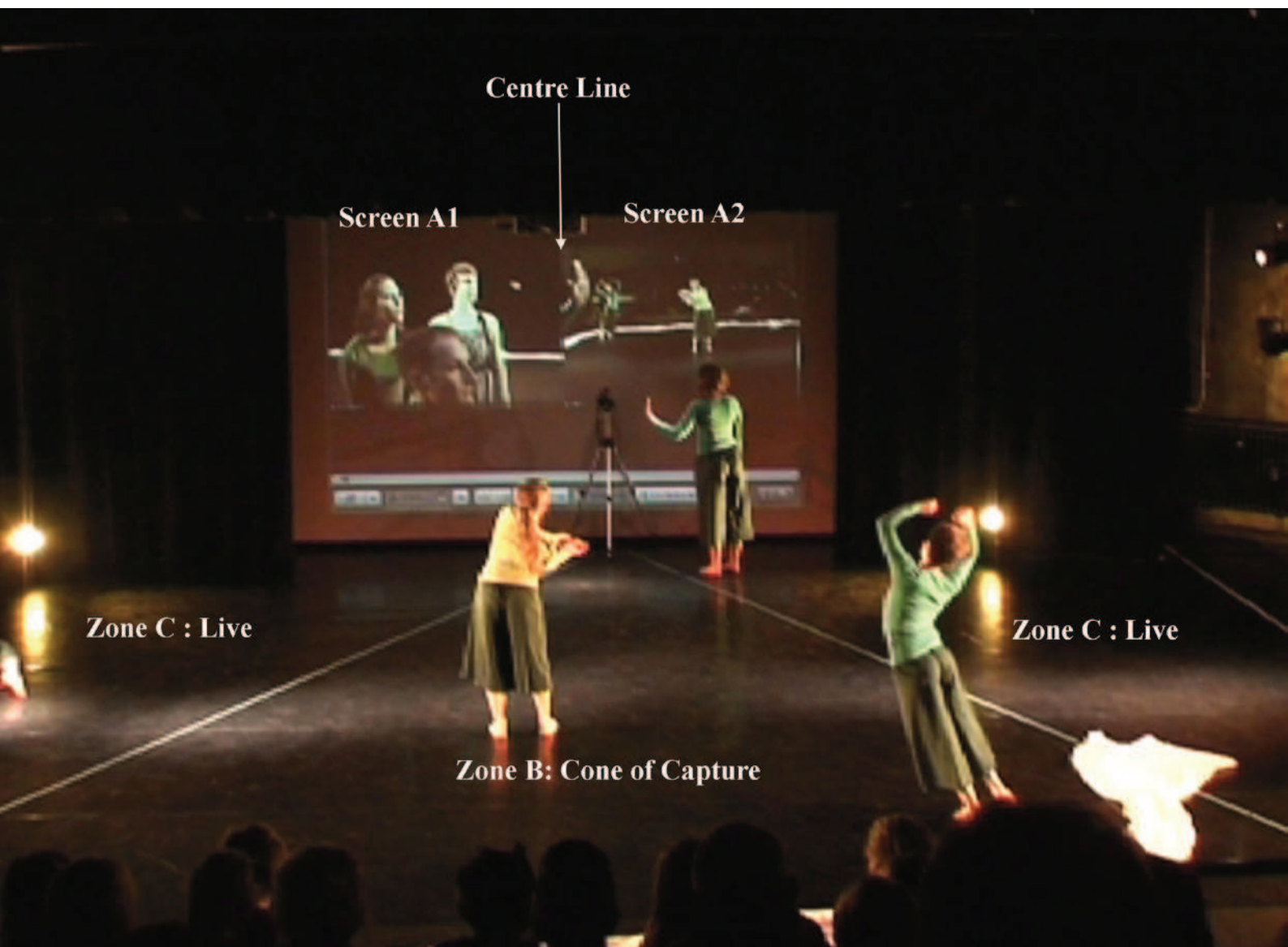


Figure 1. Project 3 UK Live audience view of the spatial zones.

Photographer: screen shot- Pauline Brooks



Figure 2. Dancers link hands across the Zone of Virtual Interplay.

Photographer: Noel Jones

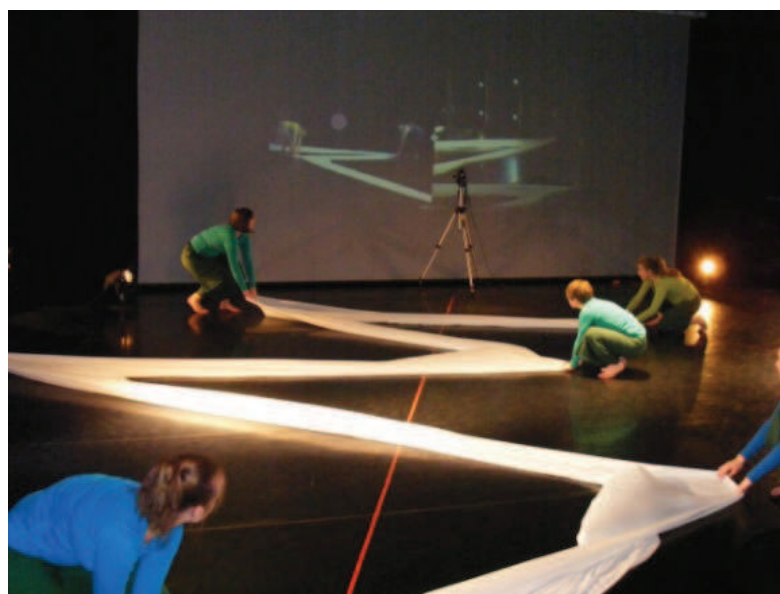


Figure 3. Props are used to link across the Zone of Virtual Interplay.

Photographer: Noel Jones

The constant challenge for the performers is to remain connected both to their live co-performers with whom they share the same live space as well as to their digitally projected distanced co-performers, who they only ever meet through the presence of the screen. The task for the student performers is to be able to embody the artistic theme and to stay connected to all performers (live and virtual) as well as to the multiple audiences who inhabit viscerally the studio theatre or virtually that 'black hole' behind the screen in the networked theatre across the ocean, or on the Internet. In the early stages of devising, a general occurrence is that performers are constantly 'fixated' with the screen to the detriment of their awareness of the live dancers with whom they share the same space. Learning to freely flow and connect between live and digitised dancers, and to inhabit space in the Cone of Capture *and* in the Live Zones, is a skill that performers must constantly be reminded to strive to achieve, and that creators must constantly work to make apparent (Brooks, 2010).

Exploring the use of perspectives of 'near-to' and 'far-from' the camera is one of the layering effects that we have found enhances the architecture of the space, and also seems to help the performers to connect with both with their distanced 'other half' on the screen and their co-performers in the same space. (See Figure 4 from *Pushing the Wave*, 2013, Project 6). It may do so because it is a specific action that requires them to focus on the architecture of their body both in the space and on the screen, and because they are given a very clear concrete actions and intent to convey. Similarly, another device that has been successful in aiding performers to interact with the live and digitised body is to execute actions that involve them working with the camera to interact with other performers. For example, in Figure 5 (also from Project 6) we can see how a dancer is placed close to the camera and is using his fingers in a big close-up to give the impression that he is rolling the dancer on the floor away from the camera.

The focused use of each half of the company to connect with the other half using the center line as a guide, and to explore what can be achieved through the 'magic' of the Zone of Virtual Interplay is something that engages both the performers, and audiences. In Figure 6 from a student collaborative work part of Project 2 (2009) we can see the performers in blue and black concentrating on the projection screen and moving themselves in and out of the Cone of Capture at the center line in order to virtually connect with their distanced partner in red and black. In Figure 7, as part of Project 7 (2013), we see an even more intense use of the illusion of the Zone of Virtual Interplay to conjoin the bodies of the two distanced companies. The theme of Project 7 is on parts of the body initiating movement, and linking and appearing on the screen. The 'wonder' of the performance environment created by the technology is that the performers can create the impression that they are two halves of the same whole.



Figure 4. Use of near to and far from the camera.

Photographer: Noel Jones



Figure 5. Appearing to manipulate other performers.

Photographer: Noel Jones



Figure 6. Meeting across the divide.

Photographer: Ken Travis



Figure 7. Two halves of the whole.

Photographer: Noel Jones

I feel I know you yet I cannot touch you

Only the performers in Project 1 (2007-08) actually travelled and met physically. In that year-long project, part two of the project involved student collaboration and devising-from-a-distance to prepare for a shared performance in the same physical space in the UK at the end of the academic year. Otherwise, the performers in the projects meet only in a telepresent state through videoconferencing. Their relationships are built through collaborative partnerships, through their shared problem-solving of a creative task, their shared experiences as performers in a telematic dance company, through discussion in rehearsals and/or on the company Facebook. Working intensely in the Projects, in this global creative learning classroom that videoconferencing technology enables, they are able to interact culturally as well as creatively. They discover more about what is different in their lives, their countries and their dance education, but more importantly they discover what is similar. One student in Project 5 commented that she was able to '*experience part of their education*' while another from Project 2 observed in the end-of-project evaluation that '*It was a really nice experience for me to get to know you, and it is weird using the term knowing you, because I don't know you - like - I cannot touch you, but I feel that I know you.*'

Building that depth of relationship and connection between the performers is important both as a requirement for a successful performance, and also for a meaningful learning process. Although separated by distance the students share the same team-taught introductory workshops in skills for telematic performance that include awareness of the camera, relationship with the camera, awareness of the spatial zones, and experimentation with physical and virtual performers in the different zones. Learning to interact both with the live *and* the virtual half of their company is a constant challenge for the performers and a regular aspect of rehearsals. In Project 5, *Bing, Bang, Bong!* (2011-12), props were once again utilized to help stimulate interrelationships. The student performers were charged to find ways to manipulate physio-balls and hand-sized sponge balls by themselves, with a partner, in small groups – and those groupings involved both live and virtual partners. Not only did some have to develop the skills to catch and throw (physically) but all had to learn to work with the technology and the spatial zones, especially the Zone of Virtual Interplay, to create the impression that a ball was being thrown or rolled from one site to the other (see Figure 8). The important interaction was to give the impression that the ball was being received, caught, and returned. Much time was spent getting to know each other's movement, timing and to be able to read body language so that if errors occurred, adjustments could be made.



Figure 8. Project 5 Passing the ball across the space.

Photographer: Noel Jones



Figure 9. Being blown across the virtual space.

Photographer: screen shot - Pauline Brooks

The last example of interaction between the virtual and physical halves of the company comes from the layering of interactions between them. Figure 9 shows the 'blown across the stage' section from *Woven Space Across the Pond*. The work took on the theme of the physical space of the Atlantic Ocean and the geographic space that separated the two sides of the company. Waves of movement and sail-like props were brought into the work, as was the idea of the wind and virtual dancers being able to blow live dancers across the screen and the stage. More examples of the interaction between the two halves of the company in *Woven Space Across the Pond* can be seen in the short clip at: http://youtu.be/4DW_6g687vQ

Interaction, cooperation, conjoining, and layered interrelations are all parts the process of how the distanced student performers from two universities from two different continents separated by an ocean have been brought together to form two halves of a whole in the seven telematic dance Projects referred to in this article. Codifying the spatial zones and using them as a means by which to creatively manipulate the bodies in and with the architecture of the space has been an important discovery. Likewise, the playful experimentation with the Zone of Virtual Interplay has allowed the creators to use the 'magic' of the technology to create a virtual zone that gives the visual impression of one company dancing together in a 'third space'. Two distanced halves become a complete whole.

References

- Brooks, P. "Creating new spaces: Dancing in a telematic world." *International Journal of Performance Arts and Digital Media* 6: 1 (2010): 49-60.
- Brooks, P. and Kahlich, L. "Dancing across the Pond: Telematic pedagogy and performance." *Journal of Dance Education*, 13:1 (2013): 12-22.
- Dinkla, S. and Leeker, M. (eds.) *Dance and Technology: Moving towards Media Productions*. Berlin: Alexander Verlag, 2002.
- Dixon, S. "Uncanny Interactions, Performance Research." *A Journal of the Performing Arts*, 11:4 (2006): 67-75.
- Garland, I. and Naugle, L. M. "A University Dance Course in Cyberspace: The Telelearning Experience." *Journal of Distance Education*, 12: 1/2 (1997): 257-269.
- Kahlich, L. and Brooks, P. "Reflections on a two-year joint international project using web-cam technology to create new opportunities for student choreographic collaboration." *Innovations In Practice*, 2, (1) (2009): 41-48 http://ljmu.ac.uk/ECL/ECL_docs/CETL_Journal_Vol2_1.pdf
- Naugle, L.M. "Distributed Choreography: A video-conferencing environment." *PAJ: A Journal of Performance and Art*, 24: 2 (2002): 56-62.

Naugle, L. M. "Technique/technology/technique." In *Moving history/dancing cultures: A dance history reader*. Edited by Dils, A. and A. Cooper Albright, 459-461. Middletown, Connecticut: Wesleyan University Press, 2001.

Parrish, M. "Dancing the distance: iDance Arizona videoconferencing reaches rural communities." *Research in Dance Education*, 9:2 (2008):187-208.

Parrish, M. "Technology in dance education." In: Bresler, A. (ed.) *International handbook for research in arts education*. Edited by A. Bresler, 1381-1397. Dordrecht, Netherlands: Springer, 2007.

Popat, S. "Interactive dance-making: online creative collaborations." *Digital Creativity* 12 (4) (2001): 205-214.

Popat, S. *Invisible Connections*. London and New York: Routledge, 2006.

Rubidge, S. "On Choreographic Space." In Ravn, S. and Rouhiainen (eds.) *Dance Spaces Practices of Movement*. Edited by S. Rayn and Rouhiainen, 17-38. University Press of Southern Denmark, 2012.

Sermon, P. *Puppeteers, Performers or Avatars - A perceptual difference in telematic space* http://usir.salford.ac.uk/10849/3/CHArt_2009_paper_Sermon-1.pdf [accessed 15 October 2010]

Spencer, M. T. (2012) *Breaking Into the Virtual Fifth Wall Choreographic Methodologies for TelematicDances*. <http://www.amazon.co.uk/gp/product/1249073731/ref=oh_details_o01_s00_i00?ie=UTF8&psc=1> UMI Dissertation Publishing, 2012.

Biography

Dr Pauline Brooks is Senior Lecturer in Dance at Liverpool John Moores University, UK. Her creative research in telematic dance involves collaboration with Dr Luke Kahlich, Professor Emeritus of Temple University in Philadelphia, and Adjunct Professor at NSU, Florida, USA. Her work in the area of Technology Enhanced Learning and semantic web tools has been with Professor Patrick Carmichael and the *LJMU Ensemble* Project. Currently she is involved in the *Making Connections* Project working with dancers and musicians from LJMU, NSU and Edinburgh Napier University. Previously, she performed with *Nexus Dance Theatre* (Scotland), *Springs Dance Company* (England), and Ann Vachon/*Dance Conduit* and *Sybil Dance Company* (USA). <https://sites.google.com/site/paulinebrooksljmu/>