Interactive Composition: Sharing the Creative Process on the Internet

Sita Popat
School of Dance and Theatre,
Bretton Hall College,
University of Leeds, UK

Kia Ng
Department of Music,
University of Leeds, UK

Kris Popat
ULTRALAB, Anglia Polytechnic University, UK

Jacqueline Smith-Autard
Bedford Interactive,
Centre for Dance and Theatre Studies,
Bretton Hall College,
University of Leeds, UK

http://icsrim.leeds.ac.uk/hands-on/  http://www.satorimedia.com/hands_on/

Introduction
Advances in computer technology have affected and continue to challenge the ways in which people think about the arts, calling into question traditional views on art-making for both artists and audiences (Durant 1990). The Internet is a particularly relevant forum for new approaches. The unique forms of communication implicit in the Internet permit the sharing and manipulation of multimedia between individuals at any distance. The Internet can be an instrument of collaboration between artists on different continents, allowing convenient transfer of sound, image, text and movie files for creative interaction. It even permits long-distance improvisational ‘jamming’ sessions for musicians around the world.

Within this wealth of potential for interaction between artists also lies the possibility for facilitating creative collaborations between the artist and the general public. Email, videoconferencing and the World Wide Web supply various options for communication of ideas, as well as sound, image or movie examples. The art-making process can be designed and facilitated by the artist to involve participants creatively within it. This paper explores the extent to which the potential for creative involvement of the participant is being fulfilled, and questions how far it can be fulfilled in practical terms.

Four Internet Composition Projects
Interactive composition can take place in real-time during a performance, but it may also be an asynchronous process that takes place over a period of time prior to, and resulting in, the performance. The Internet can be used to implement both approaches, although it struggles with real-time multimedia when using slow connection speeds. Several projects have existed or currently exist that utilise both the synchronous and asynchronous approaches in dance and music composition. The Brain Opera [2] and Honoria in Ciperspazio [3] are examples of both types of approach in music. The Brain Opera Web site allows participants to take part in an Internet event using Java applets to create their own sounds. Honoria in Ciperspazio asks contributors to send in poetry and arias to be included in the libretto. In the field of dance, M@ggie’s Love Bytes [4] functioned as a synchronous event, employing videoconferencing to involve participants in a real-time dance performance through input of sound, images and text. Participants’ contributions were used as inspiration for the improvised dance performance. By contrast, Webbed Feat’s Bytes of Bryant Park [5] consisted of an asynchronous process lasting thirteen weeks. Participants completed text-based forms or made choices that were submitted to the choreographer, who used the participants’ input to create the dance.

In both synchronous and asynchronous processes, the participant is involved within the structures created by the artist. Some of these structures permit feedback, and some do not. The synchronous events appear to allow the participant to be involved in the performance as a performer. In practice, the number of participants and the quality of multimedia files arriving via low connection speeds severely limits the amount of discernible influence that the individual participant’s input can have on the performance. Also, the real-time sense of performance may prevent the participant from experimenting or playing within the medium, which is an essential element of the creative process. The asynchronous approach offers a greater chance to involve the participant creatively. It permits time to play and to develop understanding of the medium that can ultimately lead to more informed decision-making within the creative process (Hanstein, 1993:105). However, the challenge to the artist is no less than in more traditional forms of composition. Indeed it may be greater, as the artist must facilitate a creative process that will encompass input from a wide variety of people whilst retaining its own sense of integrity. Webbed Feats’ Bytes of Bryant Park allows only limited and highly structured input from participants. The input is then taken into the privacy of the studio to be used as inspiration for a dance that is not seen by the participants until the performance. Honoria in Ciperspazio only allows input in terms of texts for the libretto, which are edited together. A professional composer is creating the original music for the project.

It is interesting to note that of these four Internet compositional events, only The Brain Opera permits the participant to interact directly within the local performance material, be it music or dance. Even in The Brain Opera, where participants may provide sounds via the Web site during the performance, the amount of that input that is included in the performance is controlled and edited by artists. In this way the artist maintains the control of the integrity of the artwork, as it is he or she who realises within a single music/dance work the diversity of inspirations submitted. In order to involve the participant to a greater extent in creating the work, and still retain that integrity,
it is necessary to include and communicate with the participant to a much greater extent, and at all stages of the creative process.

**Hands-On Dance Project**

The **Hands-On Dance Project** involves participants via the Internet in the process of choreographing dances. It consists of a series of individual projects, that each take place over a period of several weeks. The participants do not need to have any specific knowledge or experience of dance, as the Project attempts to provide a creative environment where all corners can be positively involved. To do this, the Project employs the unique communications systems provided by the Internet to facilitate a high level of interaction between project director/artist and participants. Through email discussion, videoconference rehearsals and creative Web-based tasks, participants are involved in all stages of the creative process. They view the dance as it develops via dance movies and video-conferencing, and they supply inspirations, suggestions, comments and questions via the various modes of communication available. Each participant may choose the types and frequency of contributions that he or she makes to the process, and all input is registered upon the Web site, so that the individual feels a sense of involvement in the artwork created.

This paper is particularly concerned with **Hands-On Dance Project 2: Reflections**, which took place over four weeks from February to March 2000. Project 2 was a 'closed' project, with only seven invited participants taking part. Four of these had been involved in Project 1: *In Your Dreams* (1999), which was an 'open' project for all Internet users, and the other three were newcomers to **Hands-On**. Participants A, B and C all became very involved in the project, even though Participant A did not have her own computer and used Internet cafes and friends' computers to participate. Participant D took part less frequently, but she also did not have a computer and experienced many technical problems. She was also a final-year undergraduate degree student and found pressure of work interfered with her participation. Participants E and F were both involved heavily in Project 1, but in Project 2 they both chose to participate less. Participant G expressed the wish to be involved in the project initially but then did not respond to any further developments or emails. Participants A, B, C and D were all experienced dancers or university dance students. Participants E and F both had little or no experience of either performing or viewing dance. Participant G did not volunteer any information about herself.

**The Creative Cycle**

Abbs' **Creative Cycle** was used as a framework for addressing participants' creative involvement in all stages of the creative process. Abbs (1989:204) defines the creative cycle as having five stages:

1. the impulse to create/stimulus
2. working within the medium
3. realisation of final form
4. presentation and performance
5. response and evaluation

Although Project 2's structure was in place to some extent prior to its commencement, the director retained a great deal of flexibility in the implementation of the project. She allowed the participants to lead the timing of transitions between stages, and to guide her with methods for approaching particular tasks within the stages. However, she tried to involve participants at every stage of Abbs' creative cycle.

**Hands-On Dance Project 2** began with Web pages that introduced the group of dancers that would be working on the project and invited participants to discuss possible themes for the piece (Stage 1). Participants A, B, C, E and F all took part in the discussion, which was mediated via email by the director, Sita Popat. Several suggestions were made, but the group arrived easily at a decision to use 'reflections and transformations' as a broad theme, with a combination of possible elements within the theme.

The group was then asked to provide inspirations for dance movement, in the form of text, images, sound and movies. Original images and movies were created by Participants B, C and E and submitted for the project. Participant A sent by mail a video of her own choreography and some improvised material from the creative process. Participant F submitted some poems based on the theme, which he had written previously. The director and Participant E both submitted text by other authors. Participant B provided some pre-recorded music and some whale song sounds. These were put on a page on the Web site so that all the participants could see/hear all of the input. Participants B, C and E all created original works for the project in media of their choice. None of them chose to work with dance, although Participants B and C were both experienced dancers, but they all submitted visual stimuli as well as text. Participant D’s dance video and Participant F’s poems were not created specifically for the project, but all were works of personal creativity that fed into the project. To some extent the participants each travelled through all the stages of Abbs’ Creative Cycle in their own media, prior to the main part of the project.

Stage 2 began with the dancers working with the inspirations submitted to create short movement phrases of about fifteen to thirty seconds each. Movies of these were put on the Web site after each rehearsal for the participants to view, with short explanations of how the dancers created the movement from the inspirations. Participants were invited to comment with criticism or further suggestions. Participant E was able to offer some responses, although she was obviously conscious of her lack of dance knowledge:

"Not being in any way dance trained I can't figure out how one would resolve that problem... Has anyone in the group any suggestions?"

However, she was much more confident in expressing her feelings about the movement made for the inspirational image that she had created and submitted:

"Perhaps [the dancer’s] fears of old age coloured it a little strongly for me and I would have wanted a feeling of greater dignity and more acceptance." [6] (see Figure 1)

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**Figure 1**: Project 2 dancer, Rebecca Monk, performing the “Old Age” movement
This trait of having confidence only in discussing movement inspired by her own submissions was also notable in Participant E’s involvement in Project 1. Then she used a videoconference rehearsal to make alterations to a short dance phrase based on a poem that she had sent in. She knew what she wanted in terms of expressive qualities, but did not seem to feel that this constituted ‘dance’ criticism. However, her direct responses were the only ones that were made concerning specific movement.

The responses from Participants A and B were often suggestions for further improvisations. Some of these were structural, with Participant B suggesting external properties as structuring elements. After the third rehearsal of six, Participant B sent in the following comments:

“I believe a choreography is emerging and it is always a good plan (though more demanding) to try to put things together rather than just have disparate studies.” [7]

Participant B’s dance knowledge permitted him to see the emergence of the choreography into Stage 3, and it was his comments that shifted the group into Abbs’ third stage of realisation of final form.

Stage 3 was more complex to design, as there are so many limitations to viewing dance material via the Internet. All of the participants were on modem connections at home and, although the movies were only approximately two megabytes, each this meant that they still took a considerable amount of time to download. Movie file sizes were minimalised as far as possible by reducing frame rates and compression quality, but too great a reduction resulted in loss of clarity of the movement, and so was counter-productive. The director asked how participants would like to approach this stage. Participant B suggested that a rough storyline could be used to “glue” the piece together. In response to this, the director created a page where the participants could develop an urban myth to be used as a structure for the dance. Participants A, B and D took part in this stage of the project, offering suggestions concerning spatial structures and intentions. A framework of ideas based around a loose storyline emerged, and this was used to structure the movement. However, the lack of input concerning the movement forced the director to make the final movement choices, rather than working with the participants.

Stage 4 was reached more through imposed time limits than a sense of completion, as access to dancers and equipment was coming to an end. Earlier in the Project, the director requested suggestions for how to present the end product. She suggested a videoconference sharing, to preserve the sense of workshopping, which placed the emphasis on creativity rather than product. A small audience was invited to the studio where the dancers were performing and one other person was invited via video-conferencing. Unfortunately, only Participants B and E were able to see the sharing. Participants D and F did not have facilities available for downloading, as they were on public computers, and Participant C was attending a wedding. Participant A struggled for the whole evening to try to download the software that was being used, and was unable to do so. However, the responses from Participants B and E were very positive, as was the response from the other individual who joined us.

Feedback from the performance (Stage 5) did not result in alterations, because there were no further performances. However, positive criticism was made by five of the six regular participants, either after the videoconference sharing or after viewing the piece put up as movies on the Web site. Participant B particularly commented on the effectiveness of tableaux to overcome the limitations of low frame rates in videoconferencing. Participant C noted that the material from the rehearsals could have been developed further than it was, but that the structure of the work related closely to the input from the participants. In general, participants’ feedback was very positive concerning both the work produced and their sense of creative involvement in it. Participants D and F noted that they did not feel that they had been particularly creatively involved, but they both gave the reason as being their own lack of commitment to the project, due to work pressures. All six regular participants commented that they felt that they had been encouraged by the communication with the director. [8]

Fulfilment of the Potential

The creative involvement of the participant in Internet composition projects seems to depend on two factors that are concerned with time and energy commitments. Firstly the artist must communicate frequently with the participants, supply encouragement to participate, and provide a framework where participants can see what is happening and influence it at any time. This is done through extensive communication and can be very time-consuming for the artist. The second factor is the participant’s own commitment to the process. It is necessary for the participant to devote a reasonable amount of time to the project, in order to develop sufficient understanding of its development to participate effectively. In the cases of Participants D and F, they could not commit that time, and their experience was duly affected. Collaboration is a two-way process and without the dual commitment of artist and participant, it cannot take place. In the third Hands-On Dance Project, an attempt will be made to run the discussion on a group-led basis, rather than artist-led. However, considering the emphasis placed by participants’ questionnaire responses on personal relationships with the artist, this may not be a solution.

There is a third factor, however, that is not controlled by choices. Knowledge bears a strong influence upon the creative process at any time, and even when all aspects of the process are explained, a lack of knowledge within the medium concerned may hinder the participant. Conversely, where knowledge exists prior to the project, the participant tends to be able to participate more creatively. Participants A, B and D all became very involved in shaping of the piece, offering improvisation ideas for developing movement, and providing structural frameworks for its completion. They had the ability to consider the shape of the whole, the integrity of the artwork, because they had the background dance knowledge to hold the information in their...
imaginations and to see how it might be developed. Although Participant C had considerable dance knowledge, she did not make any direct comments on the dance movement created in the Project. However, she commented frequently on how involved she felt, and at the end of the project she stated that she had felt creatively involved. Most of her input was via Flash animated movies that she created and submitted as inspirations. Her ability to feel creatively involved in spite of not commenting may stem from her ability to understand the process through her dance knowledge, even when she chose not to directly participate.

This apparent requirement for medium-specific knowledge seems to be problematic, as many Internet users will not have arts knowledge. In practice, however, the solipsistic nature of the Internet is such that most users who progress to become participants will have some knowledge of the relevant medium, or at least an interest in it (Wellman & Gulia, 1999: 185). Even for participants who lack arts experience, there are many kinds of knowledge that can be applied within this situation, and even a lack of medium-specific knowledge may not prevent a participant from making insightful comments. However, it may prevent the participant from having the confidence to make the comments. Participant E mentioned her lack of dance knowledge several times. At the end of the Project she noted:

“I was most impressed with the suggestions for choreography pouring in from dance people involved in this project... but felt bereft of ideas myself. Dance people seem to be able to visualise how to use the human body to paint a moving picture almost as an artist might visualise the still picture that he would create with brushes and oils...... and I know I can’t do either!!” [9]

Yet, as stated above, she was the only participant to comment directly on specific movement. It was evident that in spite of her lack of confidence she was able to contribute positively and creatively, through personal involvement with the material. She could not see the development of the dance work on a larger scale, as Participants A, B and D could, but she was nonetheless able to contribute meaningfully to the process, and was encouraged to do so.

Interactive composition is concerned with precisely what it states – interaction (Pearce 1997: 272). In this case, it requires interaction between artist and developing artwork, between participant and developing artwork, but most of all between artist and participant. Where these three requirements are fulfilled, it is possible to involve the participant positively in the creative process. The Internet is currently the most effective medium for supporting an asynchronous, interactive project of this nature. The Hands-On Dance Project is proposed as a model for such an approach, but it requires a great deal of refinement still to become feasible arts practice.

Acknowledgement
Thanks to the Hands-On Dance Project 2 dancers, from Bretton Hall College, Wakefield, UK:
Christa Lochead, Dee Carroll, Emily Dodd, Emma Briggs, Rebecca Monk, Sarah Jaggard, Sarah Poulter, Tara Hunt

References
[6] email communications during Project 2
[7] email communication during Project 2
[8] from questionnaire responses at the end of Project 2
[9] from questionnaire responses at the end of Project 2


