THE NETWORKED BODY
Movement – based games as online collaborative catalysts

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Abstract

By leveraging methodologies contained in movement improvisation and games, frameworks were created that enabled instant online collaboration and cross-cultural interplay. Exploring game-based dance frameworks as a path to personal connection and cultural exchange online, encourages active listening and interaction which builds the foundation for richer online rapport. Participants instantly connect and cooperate regardless of geographical location or previous experience with performance or digital media. Given the state of migration worldwide and the growing globalization and cultural exchange made possible by pervasive technologies on the internet, the potential for using game-based dance frameworks to connect communities online inherently impacts not only the field of dance but the fields of international development, cultural integration, education and other arts initiatives as well.

Keywords: games, dance, networked, collaboration

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Background

Cultural exchange is at the heart of international conflict resolution, yet the experience of cultural exchange through traveling is not accessible for many people. Current pervasive technologies enable expansive connectivity, and while technologies already exist that allow for the creation of a shared virtual space, rarely are frameworks employed toward creating online rapport and instant online collaboration so that opportunities for cultural exchange can flourish.

One of the unique facets of improvisation is the rapport that is created between improvisers. Improvisation, in its simplest definition, is the act of making something up as it is performed, an act of spontaneous creation. One action organically spirals out of another. Each performance is different, and the act of improvising relies upon the performers' abilities to listen and react spontaneously in the moment. Indeterminacy is the primary element in improvisational performance, and the reliance upon one's readiness to respond creates an instant collaboration that resonates intimately among performers.

> "One launches forth, hazards an improvisation. But to improvise is to join with the World, or meld with it. One ventures from home on the thread of a tune." (Deleuze and Guattari, 1987: p. 311)

When translated into an online space, the experience of improvising similarly relies upon the performers' abilities to listen and react spontaneously. In this case, networked performance is defined as an online collaborative performance among physically dispersed participants digitally linked in the space of the internet. In networked performance, the performers must "listen" with their eyes and ears toward the audio and video streams that are being broadcast. As this listening takes place, the performance morphs and grows, with the performers making slight changes and adjustments to follow their fellow improvisers.

As in any improvisation, there is a mystical quality that cannot be captured – the group dynamic that becomes the organic process, the adaptations and changes that become the event. In a networked environment, this takes on an ethereal quality; media translations are carried over the ether and watched/listened to via the ether.

Unlike a physical space, though the shared digital space exists only as the improvisation is happening. It is constructed as the performance occurs and disappears in its absence. As the performers collaborate and improvise online, a "oneness" of space is opened and persists, regardless of the multiple physical locations of the performers.

Since the shared virtual space remains open only for the duration of the improvisational performance, performers are acutely aware of its finitude and the performance is conducted in a space of immediacy, non-repeatability. Sharing a creative space of improvisation, in which the state of unpredictability provides a constant variable, creates for the performer a continuum of "becoming," which recalls that described by Gilles Deleuze and Felix Guattari: "becoming as involutionary, becoming as creative." (Deleuze and Guattari, 1987: p. 238) The process of networked improvisation is characterized by mutual collaboration and evokes the effect of space folding in upon itself as distances collapse into a shared space. The human-computer-human exchange becomes, literally, in its "becoming," a palpable presence. The state of improvisation is a tenuous, yet continuous state of becoming: immanence collectively experienced.

Playful improvisation in networked performance

Early experiments in networked performance involved open structures and improvising around scores. Viroid Flophouse (Dorado, 2004) was an exploration of playable art in an online environment incorporating movement improvisation, motion tracking, streaming and telematic performance within the theme of 'virus' and was the first of many collaborations with ADaPT (Association for Dance and Performance Telematics) (ADaPT interview, 2004). The original idea was that remote sites could 'infect' each other using digital telepresence. The performance took the form of a cooperative game, where players on each side of the Atlantic used motion sensing to control a graphic environment in the other/remote space. A game structure was developed: the dancer in Arizona and the dancer in Amsterdam had to position themselves in the same shared virtual space in order to get to the next level of the performance game.

Arizona State University, Tempe, AZ   *Waag Society, Amsterdam, NL*

Figure 1. Performers in Viroid Flophouse played a cooperative movement game online: dancers in Arizona and Amsterdam had to move in a shared digital space in order to trigger the next level of the performance game.

Partner sites at the Waag Society in Amsterdam and Arizona State University in Tempe, AZ, functioned as physical spaces which on-site participants could interact with remote participants in this hybrid game and performance environment.

RPM's Remixed (Dorado, 2006) was a telematic, transdisciplinary performance based on remixing Alvin Lucier's RPM's score (Lucier, 1995: p. 396), integrating dance, video and sound improvisation.
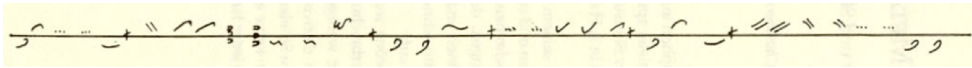

Figure 2. Alvin Lucier's original RPM's score.

Lucier's original score was a playful take on creating sound based on depressing and releasing the accelerator of an Aston Martin engine. The score itself is a series of nonsensical curvatures and dashes – nonsensical, that is, until a personal interpretation of each written gesture is applied. The RPM's Remixed score was a similarly playful remix of the original score, as shown below in Figure 3.
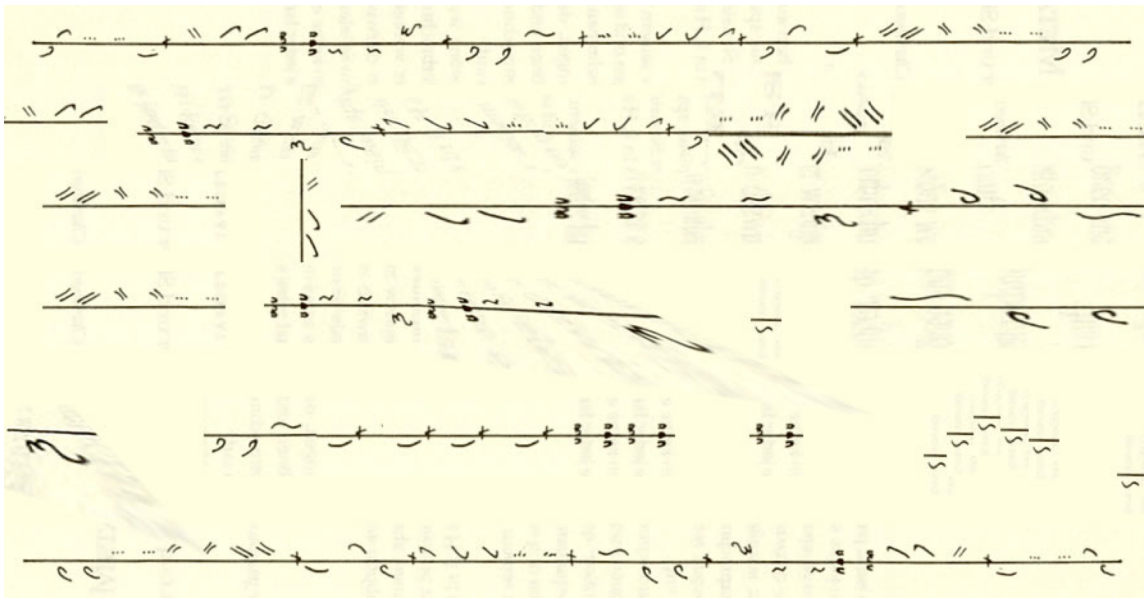

Figure 3. RPM's Remixed score.

RPM's Remixed was simultaneously performed in New York, Los Angeles, Tampa and Houston, and was also invited to perform as part of the ISEA 2006 Festival. Dancers in Houston and Tampa (Elizabeth Haselwood & Rachel Chase) improvised together while sound artists in New York and Los Angeles (Emre Balik & Laura Escudé) created instant compositions. Realtime processing of the video images was driven partially by the performers' movements, further blurring the lines of authorship and creating opportunities for play. The cast deconstructed the score, into dance gestures, violin strokes, guitar riffs, and sound and video mixing.

Performers in both Viroid Flophouse and RPM's Remixed observed that close friendships had grown (Escude, 2006) (ADaPT interview, 2004), despite the distance and the fact that the performers had never met each other in physical space. By creating playful frameworks for online collaboration, networked improvisation had become a vehicle for cultural exchange and cross-cultural friendships. Following this insight, the artist (Dorado) pursued a more focused approach around movement-based games as collaborative catalysts in online space, thereby seeking a methodological approach that opened the opportunities to collaborate to non-performers as well.

Movement-based games as collaborative catalysts

Collaborative play has long been an element in games, from theatrical improvisation games (Spolin, 1963) to video games such as World of Warcraft (Nardi and Harris, 2012). Cooperative group games require collaboration and teamwork, often towards a collective goal. Movement-based improvisation games such as the Mirror Game, Follow the Follower (Spolin, 1963: p.61-62) and Fluid Sculptures (Playback Theatre, 2007) have collaborative mechanics built into the game. For example, the Mirror Game involves moving in a way that exactly reflects the initiator's movements. The advanced variation, Follow the Follower, allows for anyone in the group to be the initiator — all participants must listen and watch actively for the emergent leader, which can change at any time. Fluid Sculptures involve the participants using sound and movement to create a visual and aural sculpture that conveys a story. In each of these movement-based activities, the cooperative nature of the interactions is part of the game's mechanics. Even more significant though, is that these movement-based games can be played by anyone, regardless of previous performance experience, thereby making the experience more accessible. Each activity encourages active listening and co-creation.

This kind of rapport building is integral in creating a collaboration-friendly environment. By integrating movement-based improvisation games into a digital setting, a foundation of active listening and co-creation is created, thereby encouraging a collaboration-friendly online environment. Regardless of the geographical distance between participants, they learn how to listen and react spontaneously in an online space. Each of the aforementioned movement-based improvisation games (Mirror Game, Follow the Follower and Fluid Sculptures) translates fluidly into an online space. Each of the games can be played with participants in a live video stream and/or in an immersive virtual world space.

In 2006, Dorado created the Kidz Connect program, a virtual cultural exchange program that connected youth in different countries through creative collaboration and performance in virtual worlds. The backbone of Kidz Connect was based on improvisational performance, dance and digital storytelling as frameworks for online collaboration and cross-cultural exchange, often incorporating movement-based games such as Follow the Follower and Fluid Sculptures. Figure 5 displays participants playing a movement game onsite and online, via live video stream and the virtual world Second Life.
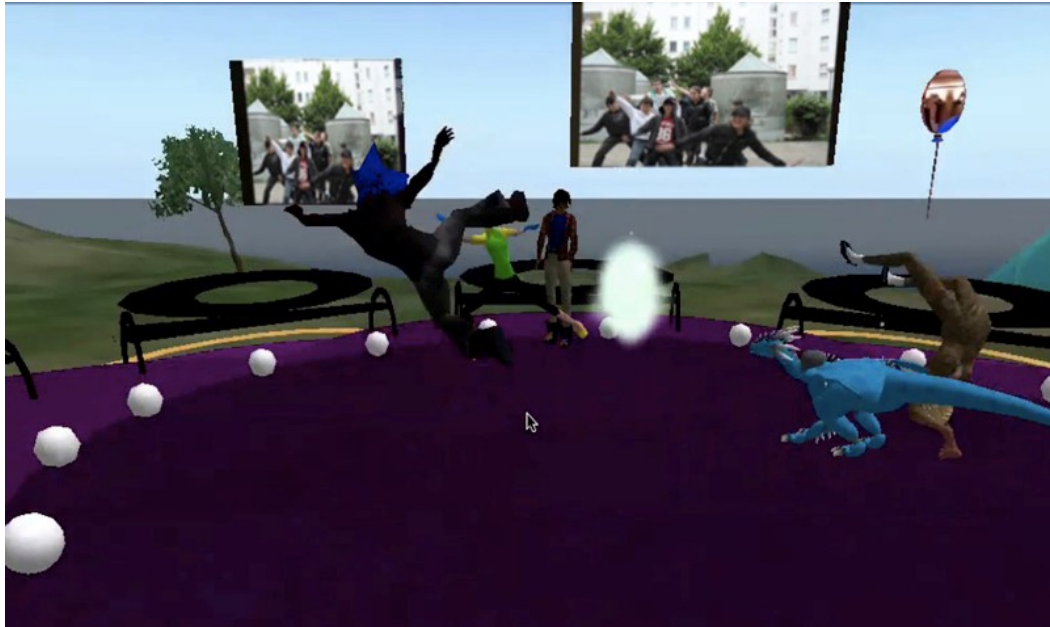

Figure 5. Participants in a Kidz Connect program play a movement game onsite and online.

Likewise, in Figure 6, participants in the #IdentityMashup lab at CultureHub in NYC and Seoul Institute of the Arts in Seoul, South Korea are shown playing the Fluid Sculptures game. (Dorado, 2012) Co-directors Dorado and Phillip Gulley led participants through movement-based improvisation games as well as writing and performing embodied stories based on Jung's shadow archetype.

Figure 6. Participants in the #IdentityMashup lab in NYC and Seoul play the Fluid Sculptures game.

In an immersive virtual world space such as Second Life, the games and movements can be adapted to allow for player autonomy. Below, Figure 7 displays a Networked Collaboration class at The New School (Dorado, 2012) in which avatars (digital representations of ourselves) play the Follow the Follower game in Second Life. In collaboration with ADaPT (Association for Dance and Performance Telematics), the movements were designed as mixable sequences of animations that could be triggered at will by the individual/avatar. This enabled the participant to spontaneously act and respond as dancing avatars in improvisations with structured sequences.

Figure 7. Participants as avatars in the 3D virtual world Second Life playing Follow the Follower, a movement-based game that encourages active collaboration.

In immersive virtual world space, avatars are not bound by gravity and physical world physics, thereby encouraging even more playful freedom. In Figure 8 below, performers in "Second Look" (Dorado, ADaPT 2008) play an improvisation game while flying in the sky with sculptural objects attached to the body.
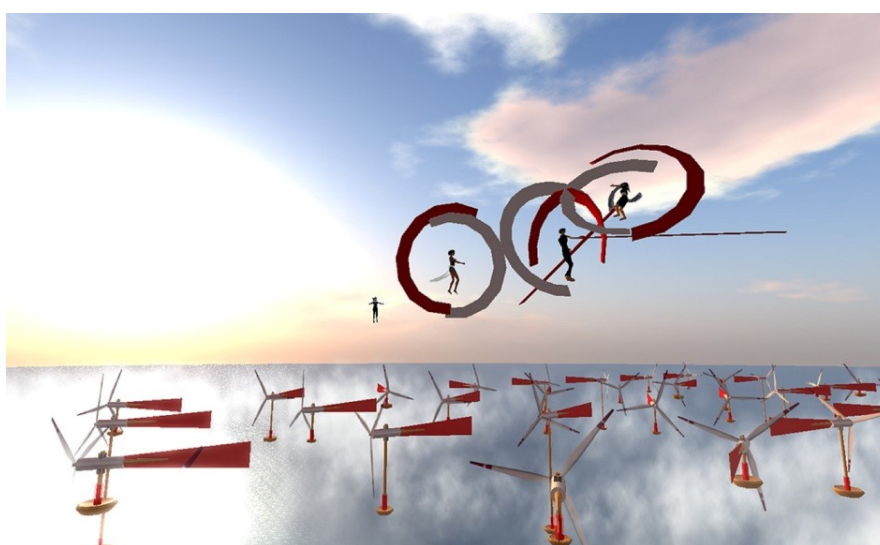

Figure 8. Image from "Second Look," a mixed reality performance with ADaPT (Association for Dance and Performance Telematics).

Conclusion

These examples are introductions to a much deeper exploration of movement-based games as online collaboration catalysts and the potential for cultural exchange through gameful online interactions. Pitting the physical realities of actual bodies in real space and real time, against the surrealities of a concurrent digital existence, we juxtapose our physical bodies and surroundings against digital bodies and spaces of our own making – questioning what creates the culture that we live in, and ultimately, questioning what makes us human. By mixing realities in which the physical and digital are present simultaneously and incorporating movement-based game forms, we engage participants in instant online collaboration within a framework that has adapted to a rapidly changing world.

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