Digital Dancing: Communicating Movement Through Technology

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DIGITAL DANCING: COMMUNICATING MOVEMENT THROUGH TECHNOLOGY

by

Marissa Lynne Aucoin

A thesis submitted to the Department of Dance of The College at Brockport, State University of New York, in partial fulfillment of the requirements for the degree of Master of Fine Arts in Dance.

Submitted August 10, 2016
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By

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DIGITAL DANCING: COMMUNICATING MOVEMENT THROUGH TECHNOLOGY

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ABSTRACT

This thesis investigates the transmission of movement in the 21st century as mediated by technology. Specifically it focuses on the translation between embodied (physical) and disembodied (digital) renderings of dance as it is shared across space and time. Framing these discussions within the creative portion of my thesis, Please Subscribe, illuminates the practical application of this theoretical research. It outlines the dance as an active, embodied research process, which pulled from the work of specific artists as impetus for investigation. The written portion of my thesis investigates concepts of technological embodiment, networked art, and viral movement trends in an effort to better understand the role of the body within movement transmission. With an emphasis on embodiment within technological exchange, it examines what it means to be human within the 21st century.
INTRODUCTION

“Dance exists at a perpetual vanishing point”
Marcia Siegel, 1972

Unlike other mediums where works of art are manifested in tangible, concrete objects (for example, a painting, musical score, script), dance exists in a state of constant disappearance. The second it is manifested it vanishes. This notion surrounding the ephemeral nature of dance is nothing new. It has been widely studied in various respects as dance historians and scholars investigate ways to document, record, and give dance a sense of permanency.¹ As someone who is equally interested in the way we, as dance historians, document and pass on movement, I posit that dance does not simply vanish into the nothingness of space and time. I would argue that it does not disappear; rather, it cycles through a place of fully physicalized embodiment to a more dormant state of disembodiment until it may once again be physically realized. I utilize this understanding of embodiment in reference to the various means that dance is both actively and inertly disembodied including video, systems of notations, or even the cognitive memory of the viewer.² The documenting of a dance

¹ For example, see Siegel (At the Vanishing Point), Carter (Re:Thinking Dance History), Berg (in Fraleigh and Hanstein, 1999) for their writings on ephemerality in dance.

on video such as choreographer Merce Cunningham’s translation of *Beach Birds* into a video recorded rendering *Beach Birds For Camera* is one understanding of this state of disembodiment.\(^3\) It may also take the form a notated score, such as a formalized system of notation like Labanotation or drawings or written iterations made by the choreographer. It is within these various disembodied states that the remnants of a dance are captured.

Dance theorists have, for the most part, posited the physical and digital as binaries; that disembodiment is the nemesis of embodiment within this innately physical art form. And this may well be true, especially when looking specifically at the moving body. The term disembodiment carries with it the acknowledgment of an absence of physicality that, when applied to live performance, suggests a certain devaluing of the performance. Dance theorist Susan Leigh Foster demonstrates this dynamic in “The Ballerina’s Phallic Pointe” highlighting disembodiment within ballet performance that relegates the female ballerina as phallus.\(^4\) Despite the presence of her physical body, the female dancer becomes object through the overt manipulations of her partner. “She exists as a demonstration of that which is desired but is not real. *Her* body flames with the charged wantings of so many eyes, yet like a flame it has no substance. *She* is, in a word, the phallus, and he embodies the forces that pursue,


guide, and manipulate it.” She is viewed as item rather than a dynamic performing artist due to this disembodiment. While this understanding of embodiment and disembodiment is pertinent when viewing gender hierarchies and sexual desires in feminist dance theory, an alternate understanding becomes necessary when investigating the functional dynamics of movement as it is transferred through technology. For the purposes of this research, I offer these terms from a more symbiotic understanding. Embodiment, pertaining to movement as housed within and executed by the physical body, is out of necessity translated to a form of disembodiment once it has been performed. Alternatively, a dance can be initiated in a state of disembodiment where it waits for artists to physically realize the dance.

As mentioned previously, the state of disembodiment can take on various forms. In an attempt to delineate further, I reference disembodiment only as it is captured and documented via written or digital formats and refer to these formats collectively as “technology.” Working from this understanding, the state of disembodiment can take the shape of anything from the seemingly simple as hand-drawn illustrations to the complex renderings of motion-capture. It is important to acknowledge that these understandings of “embodiment” and “disembodiment” are by

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6 The term “technology” can be understood as any advancement and application of knowledge for practical purposes and therefore does not solely apply to the most recent advancements in digital/internet technologies. The assembly line, even the postal service, were each technological advancements in their time.
no means universal, but for the purposes of this investigation these understandings will serve to differentiate physical movement from non-physical renderings.

The cycle of embodiment (See Figure 1.1) serves as a framework for investigating specific modes of transmission between disembodied and embodied states of movement. Housing these discussions in the creative portion of my thesis, *Please Subscribe* illuminates practical understandings of these processes. *Please Subscribe*, which premiered in March 2016, was an embodied investigation of technological themes both in content and process and was created in direct conversation with the research for the written portion of this thesis. As such the work pulled from the work of specific artists as impetus for investigation while simultaneously leading me to other examples that were discovered through process. Staying true to this dialogue, I draw from various choreographic and theoretical examples as they pertain to the creation of *Please Subscribe*; some situated at the forefront of process, others born tangentially out of process.

Figure 1.1 – The Cycle of Embodiment
In Chapter One, the first two sections of Please Subscribe prompt a discussion on unidirectional pathways of transmission. On the cycle of embodiment these pathways are instances where movement travels from a single state (either embodiment or disembodiment) and is translated via a form of technology to the opposing state. These unidirectional iterations serve to unpack the functional dynamics within the cycle’s foundation in preparation for the investigation of more complex navigations later on. This discussion links to the work of Merce Cunningham as well as a contemporary television advertisement as supplementary examples that were derived from in-process investigations. It navigates two inverse conceptions of embodying technology; one through the creative process of Buffering, the opening section of Please Subscribe which translates digital concepts of motion into the physical realm. The other is demonstrated through Cunningham’s work with motion capture technology that extends a three-dimensional dancing body into the digital sphere.

Chapter Two highlights Remy Charlip’s Airmail Dances as an entry point to the third and fourth sections of Please Subscribe. Introducing the concept of “networked art” this chapter investigates movement that traverses through the cycle at least once in its entirety. The technologies at play are all mediums used to send and, in certain instances, expedite information across space and time (e.g. the postal system, speech, written word, email, text message etc.). Focusing primarily on the dissemination of notated dance scores, this chapter serves to illuminate how

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7 See Figure 1.2
choreographic ideas circulate, are added upon, and are re-interpreted by a network of collaborators.

Figure 1.2 – Unidirectional Translation

The final chapter aims to further complicate the contained understanding of the cycle of embodiment by introducing Internet technologies that allow complicated web-like exchanges of information. Mediated by the Internet, the cycle is uprooted from its circular form and begins to branch off into tangential rays of informational output. The disembodied dance can be openly accessed through various channels and embodied and later re-disembodied via the same or different technological mediators. Line dancing serves as the primary example for this chapter both as a social practice and as

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8 See Figure 1.3.
an element of my creative process. Drawing from my personal experience with line
dancing, I offer an ethnographic investigation of this social dance form as it traverses a
local and global network of embodied physical practice that is ultimately shared
through the online dissemination of disembodied dances (video, step-sheets, etc.). This
complex web of movement exchange prompted the research investigations that
culminated in the concluding sections of Please Subscribe; which incorporated the
creation, dissemination, and manifestation of a line dance in process and performance.
Drawing from a few secondary examples of viral dance videos on YouTube aims to
illuminate how Internet technologies not only share but prompt non-dance audiences
to engage in shared movement experiences.

Figure 1.3 – Internet Networking and the Cycle of Embodiment
The breadth of this investigation is essential to a comprehensive understanding of how technology can be and is utilized to transmit and communicate movement. Technological advancements of the 21st century have not only introduced new mediums for disembodiment but now allow for the vast dissemination and communication of movement through an instantaneous, highly accessible networks. Living in an age where interactions with technology most readily work to disembody users, an essential focus on the moving body helps to better understand what is being lost or gained within these exchanges. As dance artist and technologist Kent De Spain states, “No one else will bring our unique somatic values to the discourse over the role of technology in our future, nor more clearly sense the bodily cost our culture might be paying for the power to create and control our reality.”9 My hope is that these investigations will prompt continued discussion on how dance as a culture interacts with technology to better understand not only what is happening on a functional level but to illuminate how technology is rapidly changing what it means to be human in the 21st century.

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TECHNOLOGICAL EMBODIMENT IN PROCESS
BRIDGING THE DIGITAL-PHYSICAL LANDSCAPE

What follows here is an excavation of the dance Please Subscribe as it was created for performance in March of 2016.

Already waist deep in thesis research, I entered rehearsals for Please Subscribe with a series of questions to guide my process. Like most of the work I make, the dance served as a platform for embodied research; in this case a physical exploration of the theories and concepts that were circulating around a notion of communicating movement through technology. How does technology capture and record embodied movement and what are the dynamics within this process of disembodiment? How does dance actively utilize and engage with communication technologies (e.g. the Internet, YouTube, etc.)? How do these technology serve to provide a network for creative and artistic exchange specifically as it relates to movement? These are just a few examples of the questions that guided my creative investigations.

Through a process of embodied choreographic research, I was able to pragmatically ground my ideas and better understand how they might manifest in practice. Through creative collaboration and dynamic discussions, I invited eleven dancers into my research. Their active and inquisitive participation in the process
allowed for various perspectives and understandings that confirmed certain aspects of my research while raising questions in other areas. My aim in the written portion of this thesis is to frame the discoveries we made as a collective, and to detail the specifics of this creative process as they are related to and informed by my theoretical research. To this end, I offer brief descriptions of the dance to provide context and clarity when discussing creative process. I also provide examples of parallel creative investigations both within modern dance and without that have guided and informed my process. What follows here is an excavation of the dance as it was performed in March 2016. This framework offers insight into the creative process as a site for embodied research while contextualizing the dance in relation to the various theoretical underpinnings that informed the work.

Entering the rehearsal process, I already had established a relatively clear concept of the structure. I planned that the dance would exist in a series of short vignettes that would play back-to-back as if witnessing a live-action YouTube playlist. Each vignette, investigating specific facets of my research, would be unified through their technological themes. In an aim to infuse both digital and physical realms, the dance would pull aspects of the digital experience and layer it in the physical space. Through the use of projection and props, my goal was to transform the digital screen into a three-dimensional, three-sided performance space. The dancers would in turn pixelate this “screen” with focused movement investigations.
Eleven dancers are clustered on stage left’s edge. Fever Ray’s “Coconut” vibrates the space with echoed pulses, tones and twangs. A single dancer erupts from the cluster when, suddenly, their progression is suspended in time. With their weight unsettled, at the ready, it appears as if someone has pressed the pause button on their dance. The remaining dancers, in turn, begin their individual progressions. Stuttering through phrase material, they make their way across the stage only for their advancements to be suspended again and again and again. The duration between each burst of movement appears arbitrary but each pause is abandoned with calculated precision. The glitching phrases rhythmically echo the fast twitch dots and sustained dashes of Morse code. As they progress, each dancer is physically and focally disconnected from those around them, pushing through their material as if they were a singular body in space. Attending only to their journey, the dancers create a complex layering of bodies speckled with fleeting periods of unison and blips of echoed movement ideas. Their organization in space and direction anchors them, connects them as they traverse across the stage.

The game is clear; the dance is a physical manifestation of the notion of “buffering.” And just as there is no apparent no logic or reasoning to the pacing of a glitchy video, the dancers sputter through their material with an arrhythmic but active attention to time. They wait in poised frustration. As if something, anything, might offer impetus to push their movements forward. Each dancer stutters through a single
phrase, some of which are shared by other dancers in the space. Their stuttering creates a heighten state of tension, accentuating their inability to move with continuous fluidity. What is not seen is that the dancers are experiencing this dance for the first time. The placing of stops and starts, the moments of extenuated movement material and hovered stillness, these are all decisions that the dancers are actively making in real time. They lead us across the stage in an improvisational investigation of embodiment, working to find some sense of resolve, of fulfillment, an ending. But just as they begin to reach the stage right side, the dance is interrupted.

This first vignette titled “Buffering” is an exploration in technological embodiment. Its aim: to take facets of movement that exist and are encountered within technology and translate these constructs to physical bodies. Drawing from the notion of buffering, a movement concept that exists solely in a disembodied state, the dancers and I attempted to analyze and apply this phenomenon onto physical bodies moving through space and time. The challenge in this arises in the acknowledgment that this movement process was never intended for physical embodiment. Because of this specific aspects of the digital iteration have more difficulty being translated to the physical body. In this, the dancers and I had to be meticulous in forging an embodied understanding of buffering that stayed true to its technological manifestation. What does buffering privilege in relationship to time, space, direction, proximity, progression?
At the start of the process the cast and I shared words, images, experiences, that served to frame our collective understanding of how buffering exists as a disembodied process in order to better grasp how this concept might apply to physical bodies moving across space and time. One of the first realizations I had was that the buffered content, our movement material, could not be derived from the technology. Rather, it was the way in which the movement was executed that would be dictated by an embodied understanding of buffering. For ease and efficiency I had the dancers work off of a written score that I created as impetus for a later section of the dance. Drawing from this score, three groups of dancers armed with a collection of verbs set out to create independent movement tracks. Once their sequences were created we worked collectively to derive the parameters of buffering that would guide their exploration and execution of the phrasework. In the end, these rules provided an improvisational score upon which dancers could make impromptu decisions within the performance. A brief excavation of these rules and their impact on the dancers’ further clarifies the process of embodying the technological concept of buffering.

**Rule #1 — Your Video Plays From Right To Left**

Drawing from the standard format of video playback in which the user can track playback progress along a time bar on the bottom of the screen, the dance maintained a sense of linear spatial progression. The cluster of dancers began on one

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10 A more detailed discussion of movement scores within creative process can be found in Chapter 2.
side of the stage and through their buffered movement sequence, progressed to the opposing side. However, rather then the standard left to right progression I decided to invert this and have the dance travel from right to left (stage left to stage right).

As speakers of the English language we are accustomed to viewing and understanding information as it appears from left to right. Years of this practice have privileged this spatial pathway in our cognition.\(^{11}\) For example, take a moment to step away from this page and survey the room you are sitting in. Starting from the left allow your eyes to scan the room and notice what you notice. Now, repeat this process scanning from right to left. How does this compare to your initial scan? Were you able to take in more information viewing in one direction than the other?\(^{12}\) In doing this exercise myself I experience a sense of stuttering when viewing right to left compared to a smoother intake of information from left to right. I am able to see and recall information in more detail within the familiar reading of left to right. Because of this bias, flipping the dance so it plays from right to left inherently challenges the viewers ability to visually process the dance in a way that feels related to the glitch-ridden process of buffering itself.


\(^{12}\) Note that this exercise is meant merely as an example and will not have universal results dependent upon personal history and experience with left to right vs. right to left processing.
RULE #2 – TIME IS A VARIABLE

In relation to time, buffering occurs with little to no recognizable pattern regarding duration. The time in which it takes for a video to successfully stream in its continuity is dependent upon a variety of factors including, for example, bandwidth, RAM issues, Internet connectivity and speed. Though there must exist a mathematical logic to some extent (considering the binary coding that is at the root of computer processing technologies) the stuttering of a buffered video on an experiential level exists as an unpredictable, seemingly arbitrary series of stops and starts. Drawing from this understanding, the dance, therefore, must have no discernable pattern in regards to time. But how to achieve this?

As a mover and maker, I have come to understand that even without actively attending to time, I have within me a sort of circadian rhythm, a sense of phrasing for which I subconsciously have an affinity. To resist that sense of phrasing as the sole rhythm of the piece, I tasked my dancers to make their own choices regarding time. “Decide how much of your video (your phrase) initially loads.” “Decide when it gets stuck and for how long.” “Decide, decide and keep deciding as you move through the material.”

13 The functional specifics of buffering technology, though related to, fall outside of the scope of this thesis. For a comprehensive understanding, see Harold Edward Price’s Streaming Media Buffering System.

Within this initial trial each dancer did as instructed and made active decisions focusing specifically on time. However, as practiced improvisers, I noticed several dancers made their decisions in direct response or in contrast to the decisions of others. There was a sense of causation or interpersonal relation that immediately removed their movement from the isolated notion of buffering. Learning from these first attempts it became clear that I needed to layer another rule to clarify their intention.

**RULE #3 – YOU ARE THE ONLY THING PLAYING**

To address this issue of connection, I prompted the dancers to visually picture bits of digital information being sent across time and space. Each bit with its own destination, its own journey. And while they may share the same network or channels, they pass each other uninfluenced, unaffected. This was one of those moments as a choreographer where I knew what I was describing to them was by no means true or even remotely representative of how Internet technology actually operates. However, I hoped this image would lead to a clearer understanding of intention. Pulling from this image, I challenged them to isolate themselves in the space, even though they were in close proximity. I emphasized the need to tune out any external information or impetus that might inform or alter their decision-making. To remember that regardless of how many people were in the space, their individual phrase (their video) was the only thing playing.

With this parameter in place the dancers executed a few investigative trials, resulting in a complex layering of autonomous bodies. Their focus shifted to an
internal place of calculated specificity that separated each dancer from those around them. Even within a sea of bodies every individual was distinct. Making concentrated decisions as they progressed across the stage, the dancers spontaneously created relationships through spatial proximity, blips of unison, and contrast. As we continued exploring it became abundantly clear that this dance could not be set; it needed to remain an active process. The heightened sense of physical awareness and intention that is needed to make improvised decisions in performance not only clarified the movement but also provided a sense of chance that is rooted in the experience of buffering. The same video played from the same computer will buffer differently each time it is streamed just as the same phrase executed by the same dancer will never be exactly the same.

**RULE #4 – YOU PAUSE... BUT NEVER STOP**

As the dancers continued to find new ways to attend to duration and phrasing, I was prompted to lead a discussion around stillness. Embodying quick glitches and sustained pauses proved to be the most challenging. Referring back to the technology for clarity and understanding we watched a video from rehearsal and I played with the progression of the video to mirror the effects of buffering. A few bursts of quick pauses, small jumps forward, moments of uninterrupted progression that were ultimately thwarted. After watching, I opened it up for a discussion comparing this viewing experience to their physical experience within the dance. What we were able to excavate in this exchange was the significance and specificity of weight and tone. In
moments of buffering the body, though motionless, is not still. It is actively suspended in a single moment of physicality, harnessing the momentum, energy, and effort that would typically be required in an uninterrupted execution of the movement.

In the digital sphere, bodies captured within a buffering video are not bound by the same physics. The data is retrieved from a digital space void of conventional dimensions and interfaced on a two-dimensional screen. Force, energy, space, tempo are no longer variables for the movement that has been captured. Instead these elements of movement are permanently fixed in this digital state, incapable of being altered without rerecording or video editing. However, in our attempt to embody this technological concept these forces are not fixed but in constant negotiation. In this, the dancers were challenged to find a way to minimize the visibility of these forces. With a more focused attention on weight and tone, specifically in moments of disrupted motion, the dancers were able to hang on the edge of each pause without allowing their weight to settle or release. Moments that were once still became charged with muscularity evoking a sense of physical and temporal tension for both dancers and viewers alike.

**RULE #5 – YOU CAN SKIP BACK**

With the previous four rules in place the dance began to gain clarity and specificity within each reiteration. In viewing this section over the span of several rehearsals I attempted to remove myself as choreographer and experience the dance with fresh eyes. What I began to acknowledge was the competitive narrative this
structure had created. With a collection of dancers all progressing at different paces from stage left to stage right, a topography of gaining and losing ground began to emerge. The dance became reminiscent of carnival games where successfully hitting a target prompts numbered figures to stutter towards a finish line. Once in my head, this image placed the movement in an entirely different context that was no longer housed in a technological landscape. In acknowledging this, my focus returned to the digital experience of buffering in an effort to refine the dance’s spatial progression.

As technologist Harold Edward Price explains in his patent for *Streaming Media Buffering System*:

> Because transmission of audio/video media data to the user takes place at the rate it is played out, the user’s buffer level can never be increased or replenished while it is playing. Thus, gaps in the receipt of audio/video media data inexorably cause the buffer level to decrease from its initial level. In time, extended or repeated occurrences of these gaps empty the user’s buffer. The audio/video material stops playing, and the buffer must be refilled to its original predetermined level before playing of the media resumes.15

Dependent upon the user’s buffer level, media is loaded in small durations to facilitate playback. For instance a buffer level of 10 seconds allows for 10 additional seconds of video to be played should an interruption in data retrieval occur. In prolonged interruptions the buffer level is unable to replenish and playback is disrupted. In an effort to alleviate or shorten these periods of dropout users often pause the video or skip back to a point that has already loaded. They skip back.

Upon this realization the once unilateral progression of the dance was thwarted. Similar to the user experience, dancers were given the option to “skip back”; to retrograde or rewind their phrase to facilitate a more continuous execution of their previously buffered material. With this addendum, the stage right side no longer read as a finish line but became a pole that dancers could push towards or pull away from. With this final rule in place, “Buffering” became a complex landscape of bodies progressing, echoing, disrupting, and reiterating as they actively negotiated space and time. It revealed a physicalized understanding of buffering as an illogically paced impediment with actively sustained weight and short bursts of extended progression.

What this opening section illustrates in both process and performance is a unidirectional translation of movement from a state of disembodiment to a state of embodiment. Isolating this single trajectory provides a situational understanding of how technology itself can house and convey movement ideas. With the absence of a physical body, concepts of motion are rooted within the system itself and are made manifest as users interact with the digital interface. For instance, with buffering and video streaming, the motion is not what is playing on the video. Instead it is the user pressing play that causes the progression of the time bar; the interruptions that thwart the video that confront the users sense of speed and
duration and alter the viewing experience. Attempting to translate these digital concepts to the physical realm challenge the physics that bound the dancing body that can lead to new movement possibilities.

As users continue to engage with technology they are constantly receiving information. Most readily they recognize content; the words of a text message, the image of a photo, the event captured in a video. However what the process of technological embodiment and unidirectional translation directly confronts is the information users overlook that is embedded within the technological medium. It highlights the intrinsics of digital experience that shape our consumption of information yet are often overlooked. It affirms that movement is not simply something that is communicated through technology but is being communicated by technology.
DIGITAL DANCING
TECHNOLOGICAL EMBODIMENT IN MERCE CUNNINGHAM’S
BIPED

The concept of technological embodiment as illustrated in the previous section is not new. It has been applied extensively to research in various fields including cyber theory and prosthetic engineering for several decades. As a phenomenon, technological embodiment centers on the fluctuating relationship between the body and technology, unpacking instances where technology or one’s interaction with technology can cause a perceived extension of the physical self. For instance, when a mechanized prosthetic arm becomes integrated into the body knowledge and kinesthesia of a patient, or when a gamer can experience and alter their sense of identity through the use of an online avatar. In an age of increasing technological advancement, an age that has been referred to as “the age of disembodiment” this investigation and acknowledgment of embodied interactions within the digital realm is of increased importance. It offers a means for illuminating the role and significance of the body as it interacts with and through technology.

In relationship to dance, technological embodiment can be understood both as an integrated physicalization of technological concepts (as exemplified in Buffering) or an application and extension of the physical body within technological realms. Referencing back to the cycle of embodiment for clarity, technological embodiment as

16 See Balsamo (1995), Chien (2006), and Crawford (2014) for their perspectives on technological embodiment as applied to their respective disciplines.
a concept encompasses both iterations of unidirectional translation, from disembodiment to embodiment or embodiment to disembodiment.

Having already explored the former in the previous section, the work of celebrated choreographer Merce Cunningham\(^\text{17}\) serves as a prime example of the latter. Cunningham’s work with the digital choreography program Life Forms\(^\text{18}\) and subsequent work with motion capture technology set a strong precedent for creative investigations in dance technology.

I actively chose to prioritize Cunningham’s use of motion capture over his work with Life Forms due to the technology’s capability to capture an individual’s embodied action and produce a digital moving image that is evocative of the original mover.\(^\text{19}\) It carries with it a sense of identity in relationship to the mover’s

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\(^\text{17}\) Cunningham (1919-2009) was an American performer and dance maker who’s choreographic achievement have made him “one of the most important choreographers of our time.” Throughout his 70-year career, Cunningham collaborated with countless innovators and artists including his partner John Cage. He is known for his creative investigations with chance, which redefined choreography and its relationship to space, time, and sound. In the later stages of his career, Cunningham became increasingly interested in dance and technology creating several dances for film and utilizing various modes of technology in process and performance. For a more detailed biography please see: "Merce Cunningham." Merce Cunningham Trust. Accessed July 27, 2016. http://www.mercecunningham.org/merce-cunningham/.

\(^\text{18}\) Life Forms is a computer based, digital choreographic software tool developed at Simon Fraser University. The University’s computer graphics research team worked in close collaboration with Cunningham to assist his use of the technology and to discuss areas for further development. Cunningham used this software in its various stages to create many works of choreography. Perhaps most notable include Trackers (1991), CRWDSPCR (1993) and Biped (1999). For a detailed study of Cunningham’s work with Life Forms see Schiphorst, Thecla. A Case Study of Merce Cunningham's Use of the LifeForms Computer Choreographic System in the Making of Trackers. Master's thesis, 1993.

\(^\text{19}\) To briefly summarize the process of motion capture, a dancer dons over three dozen sensors attached to various parts of the body that are tracked and captured by a series of highly sensitive infrared cameras. Capturing only the location of the sensors, the camera collects raw
idiosyncrasies; a technological manifestation of an individualized body. In contrast, LifeForms provides a platform for making shapes on a digital biped that the program subsequently works to link together. It offers the structural outline of a movement phrase or idea but does not reflect the artistry or body knowledge of a practiced dancer. This is not to say that an investigation of technological embodiment within the process of using LifeForms is less significant or unwarranted but rather to narrow the scope of this examination to more deeply investigate the instance where technology appears to extend an individual’s dancing body into the digital realm.

Cunningham was not the first or only choreographer to utilize technology in process or performance. However, what makes Cunningham a prime example is his emphasis on the body within these explorations. Rather than simply layering technological and physical elements in performance, Cunningham used technology to push the limitations of movement invention on both physical and digital bodies. Perhaps the most quintessential example of this can be seen in his work Biped. Choreographed in 1999, Cunningham collaborated closely with digital artists Paul Kaiser and Shelly Eshkar to develop digital animations of his dancers in motion. Utilizing motion-capture technology and figure animations, Cunningham projected digital renderings of his dancers in motion onto a downstage scrim, layering digital and physical bodies within a shared performance space.

motion data frame by frame that ultimately manifests as a series of organized dots in motion. This raw data is then layered on to a virtual skeleton to create the visual representation and essence of a moving body. See Abouaf, Jeffrey ""Biped": A Dance With Virtual And Company Dancers, Part I." IEEE Multimedia 6, no. 3 (1999): 4-7, for further discussion on the motion capture process.
Viewing a recording of *Biped* in performance from 1999 by Charles Atlas, I am intrigued by a set of digital dancers who accompany and overlap and duet of live performers on stage. Together the quartet of dancers moves through similar movements in varying orders. A gesture of the arms, a forward curve of the torso, a series of fast paced but precise articulations of the lower leg. However, they are not bound by the same physical constraints. As they attend to the movement the live dancers demonstrate muscular tension and effort where the digital dancers, though rendered from the live dancers movements, do not capture the same sense of tonality. On the other hand, the digital dancers play with kinesphere and size as they grow and overtake the live dancers who are bound by their physical form.20

The digital dancers capture the moving body with enough specificity that it extends certain aspects of the individual dancers into the digital realm; their senses of rhythm, coordination, and movement eccentricities are all substantially replicated. Dance theorist Kent De Spain echoes this sentiment when discussing his viewing of Cunningham’s digital dancing bodies, “The figure is clearly a representation of a human, a biped whose movement quality is instinctually recognizable,” he then adds, “yet it lacks all of the features by which we categorize and contextualize in that instant of perceiving an ’other.’”21 What De Spain acknowledges here is the absence of

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physical identifiers. These figures are absented of race, gender, sexuality, facial expression, all of which are customary aspects of viewing and meaning making.

In an inverse understanding from what was experienced in the creation of buffering, translating the physical body into digital space/time filters out specific aspects of movement. As Cunningham’s collaborator Paul Kaiser acknowledges:

It’s true that motion capture is a process of subtraction, of taking away. The infrared cameras have only eyes for the reflective markers worn by the performing bodies, and not for the bodies themselves. Right away we lose all vision of muscle and flesh, and with that all sense of effort as well, since we can no longer make out the actual struggle and sweat of the performing body. The face also vanished and with it the expressions that signal intention and feeling.  

Cunningham, Kaiser and Eshkar’s motion capture translation successfully archives aspects of body placement, shape, orientation, tempo, speed, duration, yet does not have the capability to capture aspects of movement like effort quality and intention. Contrastingly, the movement concepts that were translated from technology in Buffering, which did not delineate movement in terms of joint action, inversely illuminated elements of effort and intention in its embodiment. Admittedly, this could be due to an historicized emphasis on intention in dance, especially when attending to embodied action. Not to mention the fact that two very different forms of technology mediate these examples (video streaming vs. motion capture). However, what becomes clear is that in any translation from embodiment to disembodiment or vice-versa certain aspects of the initial movement sample are emphasized while others are filtered.

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out either intentionally or by specific limitations on the receiving end. However, despite this filtering, Kaiser maintains that:

The humanity in the work exists not in the figures but in the representation of movements only humans could create and realize. By removing the distraction of the human personality, we might be able to focus more clearly on the magic of movement.  

What this instance of technological embodiment achieves is an intermingling of embodied understandings within an inherently disembodied environment. It blurs the once clear delineations between dancing body and moving animation by offering a third alternative; a dancing animation that is wholly derivative of a fleshy, sweating, dancing body. Is it embodied? Is it disembodied? Or perhaps alternatively embodied? These are all questions that could promote further understanding of the integrated relationship between dance and technology, especially as choreographers continue to make and create in both physical and digital environments.

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An advertisement disrupts the dance. “Does lower back pain have you in the dumps?” Two dancers lie on their backs stage center. Arms and legs gently swimming in the air above them, they ask a series of questions fishing for viewers with lower back pain. “This product is sold to those 21 years and older.” Spoken rapidly, our attention jumps to a new advertisement stage right. Two dancers move through a brisk series of gestures moving in reference to the verbal phrasing and inflections of a third dancer who is addressing the stage right audience. “Are you unsatisfied with your armpit hair?” A third ad is layered into the space bombarding the stage left audience with an abundance of verbal and physical information. A single dancer moves through a series of movements and gestures that emphasize the underarms while her partner discusses the many features of this fine product.

“Take back your life with Hydrolinazox!” “Well now you can with Wine-Not!”

“Hot off the black market comes Colored Pits!”

The three advertisements simultaneously compete for the attention of their audiences. Within the three-sided space of the Rose L. Strasser Theatre, each ad strategically plays towards a single side of the audience. Dependent on their seating, audience members are forced into a specific viewing experience based solely on proximity rather than interest. There are moments where a line of text or a series of movements on the opposite side of the space fights for attention. “But that’s not all!” The audience reaction to certain advertisements makes those on the opposite side of the
space envious of their viewing experience. The two ads on the sides of the space finish and attention is snapped back to the two women with back pain. “**Excessive body hair growth, gynecomastia**” We re-join the ad midway through a seemingly unending list of comical, life-threatening, and contradicting side effects. The dancers move through a series of nuanced struts and abstracted gestures that physically references the text until finally their list of side-effects ends and our content, our video playlist, is finally allowed to continue.

The process of technological embodiment is rife with possibilities for physical explorations and technological discovery. In this interruption of advertisements the dance physicalizes aspects of the digital experience in the 21st century in an attempt to comment on the ways our society engages with technology. The overlaying of ads bombards the viewer with information. As visual artist Matthew Ritchie points out, “There is a famous ratio of signal and noise… too much information and it turns into noise.”  

Similarly, this overlapping of various texts and movement ideas creates an abundance of information that audience members are forced to filter through. It is reminiscent of the antiquated days of pop-up advertisements that would bombard your computer screen.

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Since this time, media platforms including Netflix and YouTube have attempted to do away with advertisements either by giving users the option to choose an advertisement based on interest, or the ability skip ads after a certain period of time or to pay monthly to avoid advertising all together. The consequence of this is guerilla marketing that disguises advertisements as news articles or carefully places products during a favorite television show. This shift of experience has made it appear as if the noise is being filtered out when in reality it is actually being further perpetuated and integrated into our consumption of information.

Technological embodiment serves to amplify physical understanding that is readily muted within digital experience. Take, for example, the concept of “swiping right” which has come to be largely associated with the dating application Tinder in which a swipe in a specific direction either implies interest (right) or rejection (left). Users are presented with a digital depiction of an individual; there is no physical interaction besides the touch of a finger against the screen. However, by removing this concept from where it is housed in the digital sphere and overtly applying it to physical bodies in space, suddenly we see this concept in a very different light. Swiping left on a screen carries less accountability, less empathy, than if that same individual was standing directly in front of you.

The clever marketing team of the television show “Man Seeking Woman” exemplifies this perfectly in their advertisement titled Side Swiped. The series’ leading character Josh Greenberg, portrayed by Jay Baruchel, is sitting on his couch alone, eating cereal and watching television. There is the ping of a gentle yet omniscient
tone, which instantly causes tension in the center of Josh’s chest. There is a brief moment of perplexed confusion in his face before Josh’s body is flung from the couch, crashing into a nearby bookshelf. The commercial cycles through a series of similar scenarios that occur as Josh continues about his day-to-day activities. While sitting at his desk at work – ping – Josh is thrown horizontally through cubicles. While attempting to use the urinal – ping – Josh is thrown completely off screen. While waiting on-line at a food truck – ping – Josh is rammed into the side of the truck. It is not until the end of the commercial that the source of this physical abuse is revealed. Here the commercial cuts to two young girls staring at a cellphone app that parodies the layout of Tinder. They laugh in disapproval at Josh’s profile before clicking his photo – ping – and swiping left in rejection.25

Both Side Swiped and the interrupting advertisements of Please Subscribe successfully physicalize aspects of the digital experience in ways that are not only comical in their references, but also afford embodied understandings of otherwise disembodied practices. Placing these digital experiences in physicalized contexts reveals the importance of bodily presence. Even within digital interactions there are real-life human beings on either end. As our interactions with technology continue to morph and change, it becomes increasingly important for humankind to acknowledge how we engage with and are shaped by the technologies we use. It is at the forefront of many interactions and has become a customary aspect of modern life, often at the expense of the body. It is far too easy to ignore or remove the body as it interacts with

technology. Herein lies the importance of the practice of technological embodiment, not just as a choreographic tool but also as a means for self-awareness and understanding. Physicalizing facets of technology affords deeper consideration of the impact and effects of disembodied tendencies. It highlights aspects of physical experience that users are circumventing and raises awareness to the surrounding social implications.
NETWORKED ART
REMY CHARLIP’S AIRMAIL DANCES

A series of dueted figures are etched onto the page. Forty crystalized couplings suspended in space and time. The two figures, one shaded, one not, demonstrate a range of close proximity body shapings that vary in their degree of weight sharing and physical complexity. Each shaping incorporates an exclusive sense of linearity, angularity, or circularity. These forty moments, absented of sequence, transitions, duration, are the ingredients for a dance.

In the early 1970s dance artist Remy Charlip26 utilized the United States Postal Service as a means for remotely choreographing with a network of collaborators. Through a series of hand-drawn images with limited instructions, Charlip created and mailed countless choreographic scores across the globe for receiving artists to interpret and embody. Though it may to fall outside of the contemporary notion of technology,

in fact, as a system for communication the postal service was precursor to the Internet in regards to its capacity for disseminating information over vast distances in an abbreviated amount of time. Through this system, Charlip was able to share his movement ideas with a network of artistic collaborators who, through creative exchange would translate his ideas into physical action.

What is of particular interest in Charlip’s process is his ability to initiate choreography from a state of disembodiment. His drawings translate physical shape directly from his mind’s eye to the page allowing these images to exist outside of the physical constraints of space, and time. Often in dance, written scores are utilized in an effort to document or record a dance that already exists in a physical sense. The record is kept in hopes to provide clarity during restagings or recreations of the original work. Airmail dances on the other hand, documents fragments of a potential dance with several choreographic variables absented from the score. We see a valiant attempt to capture the complexity of a dance within the confines of a postcard or a single sheet of paper.

The page offers a two dimensional canvas upon which Charlip can design the imaginings of a dance. His score “The Wooloomooloo Cuddle” (See Figure 2.1) consists of eighty bodies existing in duet relationships creating a total of forty partnered shapes. Head, torso, arms, hands, legs and feet are drawn to clarify body positioning and joint action of each body as it relates to its partner. Roles are delineated within each positioning as one figure is dressed in white and the other shaded black, insinuating the dance exists as a duet. However, several instances of
slight overlap between couplings could leave room for alternate interpretations, a quartet perhaps.

Figure 2.2: Remy Charlip’s score for “The Wooloomooloo Cuddle” March 10, 1976
The shapes fluctuate in their apparent difficulty, with various degrees of weight sharing and support occurring between bodies. As mentioned, the forty images alter in their relationship to linearity, angularity, and circularity though typically maintains a unified sensibility within individual duets. Charlip’s consistent use of perspective throughout the page provides an almost undisputable sense of verticality. Likewise the visual nature of drawing as a medium implies a specific relationship to audience/viewer that is embedded within the technology itself. The drawings nearly fall into legible rows with about five or six images per row. Outside of the inclination to read the figures in order from left to right, as if reading a book, there is nothing in the document signifying sequence. Collaborating artists are given the agency to not only organize the material but also generate transitions between these crystalized forms. Time is also absent from the score. Charlip does not delineate the duration of shapes or the time between shapes, leaving these decisions to the devices of the collaborating artists.

In a sense, what Charlip offers his collaborators in this score is a series of highly specific and intimate shapes. Shape being perhaps the sole elements that feels definite in its need to be precisely replicated from the score. The rest is open to creative interpretation. It is the way in which these scores leave space for active creative contributions that is of particular interest. In translating from disembodiment to embodiment there is nothing to compare or aspire to aside from what is explicitly delineated on the page. The more space left for interpretation the more artistic agency the collaborator has.
To unpack the process of embodying movement from Charlip’s score, *The Wooloomooloocuddle*, I utilize two video recordings of the dance in performance; the first is a duet by Patrick Scully and Lance Westergard performed at the Joyce Theatre, the second is a duet performed by Monica Olsson and Vincent McCloskey at PS 89 in New York City. As a third site for comparison, I recount the process of using Charlip’s score creating duet material for a section of *Please Subscribe* titled *Split Screen* which will be discussed later in this Chapter. Collectively, these sites of inquiry offer a platform for investigating the transmission of movement from a disembodied score to a fully realized dance that was once again disembodied upon performance (both through the existence of the original score and through the documenting of the dances on video).

As mentioned previously, it is important to acknowledge in this example that the dance begins in a state of disembodiment. There is no “original” version of the dance other than what is written on the page, allowing for the continuous revisiting and reinterpreting of the score into a fully realized dance. Through this process, Charlip creates space for collaborating artists to interpret the score while making active compositional contributions. Because of this, the three interpretations that follow are far from being visually identical which raises questions as to whether they can be considered the “same” dance. Philosopher and dance theorist Kenton Harris offers insight when he states:

> It is better to take two dances as being the same not because they are visually identical—the sort of effect a video would create—but because each is understood as following certain rules. These rules amount to the recommendation for which ingredients to incorporate
but at the same time allow variation and artistic freedom on the parts of the present choreographers and dancers.\textsuperscript{27}

Through this understanding, any and all dances that adhere to the delineations of Charlip’s score can each be understood as stagings of \textit{The Wooloomooloo Cuddle} regardless of their visual likeness. Acknowledging this is imperative when analyzing and comparing the interpretations of the dance that follow.

\textbf{THE WOOLOOMOOLOO CUDDLE}
\textbf{AS INTERPRETED BY PATRICK SCULLY AND LANCE WESTERGARD}

The stage lights slowly illuminate the two male dancers as the sound of a droning didgeridoo fills the space. Shirtless but sporting white pants we enter the dance mid motion as Scully slowly walks towards Westergard who is crouched a few feet away. The two progress through a series of slow, controlled extensions echoing several of the linear images in Charlip’s score. Spatial tension is created and dissolved as they traverse through moments of sustained weight sharing and counter balance. They navigate each spatial relationship with a sense of give and take, of intimate support. Despite a clear difference in height (Scully standing nearly two feet taller than Westergard) both men share the role of supporter and supported with the changing of each shape. Overall there is a thoughtful and measured pacing to their movement, making moments of transition of equal importance to Charlip’s delineated shapes. The

pair demonstrates immense athleticism as they find complex ways to enter and exit each shape. Besides the two performers, the stage is completely dark. In this black box the spatial proximity and relationship between the two dancers is further emphasized as they move towards and pull away from one another. There are a few brief moments where their continuous phrasing is thwarted; a series of medium paced alternating gestures, a small fall or release of control that quickly gathers into the next moment. But the two quickly return to their established sense of time. They end in an expert display of support and control with Westergard standing fully erect on the back of Scully who is standing with his torso pitched forward. Together they painstakingly condense their shape until they both end in a small, stacked crouch.²⁸

Scully and Westergard’s interpretation of Charlip’s score emphasizes, athleticism, control, and support. The duet is both physically virtuosic as it is visually impressive. Attending to the forty shapes in the score inherently establishes a need for physical intimacy and weight sharing. However, by choosing to attend to these shapes in such a sustained, drawn out fashion Scully and Westergard create the tone of their relationship. Despite its intimacy, the dance does not read as sensual as neither dancer releases or succumbs to the will of the other. The considered and exacting intention of the performers strips the duet of emotion and further emphasizes the dancers’ physicality. It is about these two bodies sharing and supporting one another to achieve otherwise impossible physical feats.

The performance takes place in an elementary school gymnasium in front of a crowded audience of eager young students. The two dancers, Olsson and McCloskey, sport matching ensembles; a white long-sleeved blouse, black slacks and white socks. They begin in silence in a rotating display of one of Charlip’s 40 shapes; Olsson promenades over McCloskey with her arms reaching wide and her right leg extended as McCloskey rotates while seated on the floor echoing Olsson’s standing shape. Spiraling around themselves they exit the shape and buoyantly step towards the upstage left corner where they momentarily settle before the accompaniment begins. The vibrant, melodic clangs of a xylophone enliven the space. The dancers bounce and bob through a series of duet material that momentarily finds static shapes only to be flourished by gestural quirks; a fluttering of the hands, a wagging of the head, the flexing of a foot. The dancers move in and out of each shape with rhythmic, segmented gestures. Almost mime-like in their intention, each body part moves independently from the rest as it works to find the next position. The lightness of tone and intention is playful, on the verge of comedic. There are several moments of repetition and variation as the dancers reiterate multiple gesticulations of a single shape. While there are fleeting moments of support, much of the dance occurs with minimal weight sharing. Even in moments of contact there is a sense of rigidity that echoes the mimetic nature of their individualized movements but does not allow the dancers to actively give or take weight. The duo plays with the proximity of their
shapes, utilizing the audience’s perspective to visually demonstrate several of Charlip’s close proximity shapes with varying physical distance. 29

In Olsson and McCloskey’s interpretation of The Wooloomooloo Cuddle their use of repetition and gestural embellishment creates a light-hearted, playful duet. By moving quickly through moments of weight sharing and staggering the dancers’ arrival to and departure from shapes, the pair was able to play with proximity and distance. Though initially the score would appear to favor close proximity, Olsson and McCloskey provide an interpretation that adheres to the forty shapes with much more independence than the score overtly suggests. Their mime-like intention to specificity and tone offers a very different sense of physicality then that demonstrated by Scully and Westergard. With a quirky sense of buoyancy and adornment their relationship appears almost conversational as one dancer initiates, imitates or interrupts the other. It demonstrates unconventional artistic choices that push but never cross the boundaries of the score.

THE WOLOOMOOLOO CUDDLE IN PROCESS
INTERPRETATIONS BY THE CAST OF PLEASE SUBSCRIBE

I first introduced Charlip’s score to the cast when creating material for a section titled Split Screen. This section, which will be discussed later in this Chapter, is a performance of translation that begins with a set duet. In order to create this set

duet I separated the eleven dancers into four pairs and one trio and provided each
group a copy of *The Wooloomooloo Cuddle*. Drawing from the score, I limited their
task to translating ten shapes rather than the full forty acknowledging first, the time
limitations within the section and second, the unlikeliness that each group would select
the same ten shapes. I emphasized their agency as collaborators and reminded them to
make compositional choices regarding sequence, space, effort, and time. Each group
created independently for some time before sharing their interpretations and discussing
the process of creation with the cast. We discussed the need for slight adjustments or
creative interpretations that were necessary for some of the shapes that proved
unmanageable as drawn. Several pairs clarified that they did not stay true to the
seemingly delineated roles in the score, alternating between the shaded and unshaded
figures as they executed different shapes. As witness, I noticed a varying degree of
invention within transition and within the static or active execution of shapes. Some
shapes were given emphasis or precedence while others were quickly passed through.
Some were locomoted through space. Some were deconstructed and overlapped with
body positioning’s from other shapes. This was especially the case for the trio of
dancers who, with the extra body that was unaccounted for in the score, decided to
select ten solo shapes. Separating a single body position from its intended pairing they
created a dynamic movement phrase that played with level, angularity and fluidity.

Drawing from these sequences, the cast and I worked collectively to compose a
single duet that expressed the range of interpretations demonstrated in their
investigations. I selected segments of material that were layered, unified, and pieced
together to create a final version of the duet that reflected aspects of each interpretation. The finished product was a duet that moved through various relational sensibilities. There were moments of precise unison, grounded support, competing shapes that would resolve into solo moments. While there were no extraneous gestures added to the shapes delineated by Charlip, there was an immense abstraction of his score. The duet walked the line of being a true restaging of the *Wooloomooloo Cuddle* as it did not incorporate all forty shapes. It questioned the boundaries of the score by isolating certain shapes and re-pairing others but actively demonstrated the creative sensibilities of these contemporary artists.

What Charlip and his collaborators achieved through his *Airmail Dances* was a process known as “networked art.” As a term first introduced and applied to the mail art movement of the 1970s and ‘80s, networked art describes the exchange and collaborative creation of a work of art as it passes through a chain of contributing individuals. Utilizing systems of communication like the postal system or the Internet, artists have the ability to initiate, contribute to, and pass on works of art to fellow artists regardless of geographic proximity. Contributing artists’ work with a sense of egalitarianism, each contribution holding equal validity to the next. According to media communications theorist Seeta Peña Gangadharan, though primarily practiced by visual artists, “[Networked art’s] direct exploration of the network appeared in other art forms concerned with the condition of information and communication
saturation in an increasingly impersonal society."³⁰ However, unlike other art forms, the intangible nature of dance complicates the process of networked art, which is dependent upon on the exchange of a physical art object.

Charlip’s solution to this problem prompted him to create written iterations of his dances for dispersal. Out of necessity, his networked dances negotiated, “the co-creative process of art-making in both embodied and disembodied forms.”³¹ Yet, Charlip’s scores, though passed on to a series of collaborators did not achieve successive exchanges. What I mean by this is the score was sent to a collaborator who embodied the dance, adding their creative contributions through their interpretation upon which the networked exchange ends. Collaborating artists did not add to or alter the score based on their embodied understandings nor did they pass the work on to subsequent artists. The communication networks now available through the Internet, which allow for the exchange of not only written text but also digitized photos and videos, opens immense possibilities in regards to networked dances. It affords a means for immediate exchange while also creating space for successive contributions. A video can be edited or added to, or, as my writing demonstrates in regards to Charlip, several individual contributions can be viewed in context to broaden the collaborators understanding of the dance artifact. Not only that but it opens new opportunities in regards to the networks linearity. Where as the mail only accommodates sequential contributions, the Internet can allow the art object to be accessed in multiple locations


³¹ Ibid. 286.
at any given time. Acknowledging this prompted my creative investigation of networked art as a system of creative exchange within the 21st century.

An eight-foot high by twenty-foot wide white screen divides the space in half. A duet of dancers claims the stage right space with an opposing duet laying claim to stage left. The screen impedes any visual or physical interaction between the two duets. On the downstage edge of the screen there is a trio of dancers. The first dancer, who is also the speaker, stands just stage left of the screen’s dividing line, blocking his vision of the duet taking place stage right and with his back turned to the duo stage left. The second dancer, who is also the notator, sits at his feet, facing upstage with a pad of paper and pen in hand. The third dancer, who is also the gesturer, stands on the opposite side of the dividing line. With her body facing directly towards the first dancer she focuses intently on the stage right duet.

The stage right duet begins moving. The audience member who can see them catch an instant of material before the gesturer begins moving. Taking the visual information that she receives from the initial duet, she attempts to translate their movements through a series of signs, gestures, and shifts. These movements are directed towards the speaker who, in turn, attempts to verbally articulate the dance. Through a series of images, bodily actions and verbal directions the speaker narrates his understanding of the initial duet as seen through the physical articulations of the
gesturer. As if to complicate this embodied so-called “game of telephone” the stage left duet, upon hearing the speaker, engage in an improvisation that is in direct and immediate response to the speaker’s verbal cues. All the while, the notator is frantically attempting to record everything that the speaker is saying.

As the initial duet finishes and the speaker concludes his narration, he crosses the threshold and with the gesturer exits the game. The notator steps in to the role of narrator as she verbally retells her written recordings of the speaker. Her disjointed fragments of words and phrases serve as an anchor for the improvised duet to attempt to repeat their initial iterations, focusing and refining this duet they have discovered. Meanwhile the set duet deconstructs elements of their phrase moving towards a more compressed, gesture-like expression of their movement material. This repeat exploration allows for a side-by-side presentation of the original duet, the impetus for generation, and the improvised duet, the synthesized creation. As the notator reads her final words and the duets resolve, she too crosses the screen’s threshold and exits.

In the final repetition of the duets, the improvised pairing presents their solidified understanding of their duet alongside an even more compact, deconstructed variation of the original duet. It is in this moment that the screen, which has established itself as the dividing line of the viewing experience, begins to shift. Three dancers maneuver the screen through a series of lateral shifts, rotations, and progressions that redefine how the dance is framed. The respective duets are confined, expanded, hidden, revealed, and divided as the screen’s motion disrupts their
established spacing. As they reach the end of their movement material the dancers exit and we see the screen make its final retreat to line the upstage perimeter of the stage.

Drawing inspiration from the elements of interpretation and artistic exchange that encompass Remy Charlip’s *Airmail Dances*, my aim in *Split Screen* was to create a networked system for immediate choreographic collaboration. It was a first attempt at actively translating set movement material across time and space through various bodily mediums of communication. Beginning with the physicalization of the set duet, the dance is communicated through physical gesture to the speaker. The speaker then verbally interprets these gestures prompting the duet’s immediate restaging as the remaining two dancers physical interpret and react to his words. In essence what is achieved in this section is an active physicalization of both the cycle of embodiment and the process of networked art. Physical movement is disembodied as it is translated to verbal and written text. The disembodied dance is once again embodied by the active interpretations of the second duet. All of the dance artists are active collaborators in the creation of the final dance artifact, each playing a very specific role that respectively shapes subsequent stages. The contributions are manifested in a linear network, each one building upon and clarifying what has come before. The various roles within this network posed different challenges for the collaborating artists. In order to further illuminate these processes I unpack each role within *Split Screen* as it navigates embodied and disembodied translation and networked transmission.
Beginning first with the set duet, their initial execution of the movement material sets the stage for all that follows. While they were the only dancers with set movement material they are challenged to actively embody this material with clarity and precision. Every moment relays information to the gesturer challenging the pair to be explicitly clear in their intention throughout the dance. A superficial or inactive embodiment of the duet will muddle the dance and in turn muddle its translation to the gesturer. Think of it in terms of the game of telephone, a clearly articulated sentence is more easily heard than a rushed or mumbled sentence. Herein lies the importance of clarity of intention and embodiment within the initial set duet.

As the gesturer is visually witnessing the dance, she receives a wide range of information including physical action, dynamic quality, imagery and more. In receiving this complex physical information, the gesturer is challenged to isolate aspects of the dance and communicate them almost immediately. She visually witnesses a moment, creates a cognitive understanding of that moment, decides what aspect of that moment is of significance and attempts to physicalize her understanding almost immediately. As an active witness the gesturer contributes to the networked exchange by relaying specific aspects of the dance to the speaker. In viewing any dance, different individuals pick up on different things. Some aspects of the dance come to the forefront while others are overlooked. It is this process of filtering that allows the gesturer to contribute to the networked dance. Likewise, relaying this filtered information through gestures allows for an alternatively embodied iteration of the dance, a restaging so to speak, that is uniquely individual.
The speaker encounters a similar filtering process as he verbally interprets the gesturer’s movements. He visually experiences each gesture and must instantaneously disembry the movement into spoken word. The challenge here is to maintain an almost seamless intake and output of information. Similar to the gesturer, the speaker is always witnessing, always interpreting, always communicating. Out of necessity, there is a slight lag that allows him processing time between seeing a gesture and verbally defining that gesture. His verbal score echoes moments of the initial duet while simultaneously overlapping and creating accompaniment that frames the initial duet as it continues to unfold. There is no opportunity for editing within this fast-paced translation. Words spill out of his mouth in active response creating a string of fragmented images, actions, and sounds. His verbal additions reframe the duet as it is simultaneously communicated to the notator and spontaneous duet.

As the speaker fires off information, the notator is charged with documenting his account of the dance. Due to his fast-paced speaking and the limitations of writing, it is physically impossible for the notator to capture every word. Instead, she frantically scribbles down as much as she can, abbreviating some moments while missing others altogether. She captures landmarks of his interpretation to guide the spontaneous duet as they attempt to reenact their first embodiment. Her creative contributions lie not only in what she records but also in how she repeats the speaker’s text. She reads off her written score with a different sense of timing and inflection that influences and informs the dancers as they work to clarify their material. Similar to the
gesturers re-rendering of the embodied duet, the notator restages the disembodied, vocalized version of the dance.

The spontaneous duet is responsible for actively embodying the words spoken by the speaker. They make active choreographic decisions as they work to recreate the dance. Within this process of real-time embodiment they are also tasked with tracking their choices. Unlike the speaker who was assisted by the written records of the notator, the spontaneous duet must spontaneously create their duet to then immediate replicate it. The verbal reminders of the notator reference the initial verbal impetus that inspired their actions. The dancers work to not only solidify their individual material, but also to clarify how their movements relate to one another both spatially and temporally. Upon their third repetition, we see a finalized embodiment of the translated duet that carries the influence of each of the collaborating artists.

Within this immediate, contained network the dance is translated into a variety of embodied and disembodied states. Each rendering is tangential of what has come before, emphasizing specific facets of the dance and minimizing others. It contains an active representation of its history, everything coming out of what has come before. The work of visual artist Matthew Ritchie (who was briefly referenced earlier in Chapter 1) utilizes a similar understanding of self-documenting networked creation. Working primarily with drawing as a medium, Ritchie utilizes various technologies to reimagine and redefine his works. As he explains:

"Drawing is very essential to the way I work because it can be blown up, taken apart, given to another person to execute, put in a computer, redrawn as if the computer thought of your drawing in the first place,"
shrunk back down to a tiny sketch… Each time the drawing is reproduced it gets bigger and bigger- and contains more detail, because it always has to include not only all the elements that I’ve made since then but the previous version of its own history, and a history of all the hands that have participated in its making.  

His use of technology as a collaborator and as medium for artistic exchange exemplifies the notion of networked art explored in this chapter as applied to visual art. As a more tangible form compared to dance, Ritchie’s investigations illuminates the possibilities within networked creation and simultaneous documentation that can be achieved when art interfaces with technology.

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A tall, long-limbed male dancer hangs in the downstage right corner of the space. With left arm extended straight above his head and right ankle coiled around his left he subtly rotates back and forth on his standing leg. His series of swaying shifts, which are arrhythmic in time, are layered with a buoyant sense of weight adding vertical drops and rises to his otherwise transverse movement. The solo is accompanied by a layering of sound and recorded text in which the dancer recounts and comments on his process of creating this dance. Contextualizing the solo, the audio offers instances of creative insight and clarity that are quickly bombarded by an over-layering of text. Reminiscent of the layering of advertisements, my intention was to overwhelm the audience with audible information, with only fragments of words or phrases jumping to the forefront until the audio is stripped away returning to an underlying repetition of faint percussive currents. “Jordan,” as the dancer introduced himself in the commentary, leaves his initial task and moves through a series of disjointed actions as he retreats on the diagonal towards center. Dwelling or luxuriating in some instances he moves through the space with a sense of task-based efficiency; each movement idea standing independent to those that came before. On his journey to the upstage left corner, Jordan moves with explicit specificity and dynamism. He demonstrates virtuosity through the clarity and efficiency in which he jumps between contrasting effort qualities until he reaches his destination and returns to his opening shape.
A series of words are pasted on the screen. Thirty groupings of letters suspended in space and time. The words, varying in font and format, demonstrate a range of physical actions that differ in effort and quality. Each word infused with its own history and context for interpretation. These thirty verbs, absented of sequence, transitions, duration, are the ingredients for a dance.

In an attempt to explore the practice of networked creation within a contemporary context, the entire creative process of *(With Commentary)* took place remotely via text and email. Before the start of rehearsals for *Please Subscribe* I emailed the dancer, Jordan Lloyd, a score that I had specifically created for him to embody. He worked independently for about two weeks before joining the cast in our rehearsals. Not wanting to alter or impact his choreographic process I decided that I would not view the dance until it was time for performance. Instead, we communicated via text as he conducted separate rehearsals. He would ask clarifying questions and I would answer to the best of my ability. I would also offer additional tasks for Lloyd to attend to in his creation that might illuminate new possibilities as he worked to refine the dance. This process of remote creation unearthed several unexpected challenges and areas of inquiry including the challenges of creating a score, negotiating dynamics of place, and the complexities of choreographic collaboration.

The score is perhaps the most fundamental part of this process, without which there is no impetus for creation. As such, it became increasingly important that I create
a score that not only left space for artistic input but also challenges Lloyd as an artist. Having a long-standing relationship with Lloyd, I was extremely familiar with his expressivity as a mover. In an attempt to push the extremes of his dynamic range I decided the score should emphasize quality and decided rather than hand-drawn images (I am a horrendous drawer) I would instead utilize a series of verbs that would inspire movement. Due to my interest in technology and the reproducibility of digital documents, I created the score using Microsoft Word. Within this program I was afforded the ability to alter the size, font, and proximity between each word to create an un-sequenced collection of words that Lloyd would in turn create from.\(^{33}\)

I intentionally chose not to specify aspects of sequence, tempo, spacing, or transition so that Lloyd could structure the dance in a way that was meaningful to him. Simply in generating movement material, he already adds his embodied history through his physical interpretations of each word. His lived experiences with a word like “resolve” inherently influences aspects of his embodiment. With certain action words there is also an inherent pairing of tempo, for instance melt is most readily paired with a slower tempo based on the understanding of the process of melting within nature and daily life. In recognizing how each word was densely packed with physical information I trusted that in embodying these words Lloyd would come to understand the nature of the score and make compositional decisions that supported his understanding.

\(^{33}\) See Figure 2.2
Make this Dance:

Skim    Redirect    Bound
Trace    Thrust    Unfurl
Slice    Quiver
Condense    Resolve
(avoid)
Melt
Chase    Brush    Glide
Expand
Jolt    Hover
DIV\ IDE
Overflow
Reveal
Inflate
Connect
Scrape
Wander
Writhe
Yield

Sequence, tempo, transitions, etc. are all yours to decide. Interpret this score as strictly or freely as you wish. Text if needed!
Working remotely as a dancer or choreographer creates complex dynamics. For starters, as the person who initiated the solo I often found myself overlooking or even forgetting about the solo as I had no tangible physical connection to it. I doubted my role as “choreographer” and wondered if Lloyd began to assume that role as he continued to work and no longer rely on the score. Despite the remote nature of this solo process, it also occurred simultaneously within the creation of *Please Subscribe*, which offered Lloyd additional context of how his solo fit into the larger work. We navigated multiple understandings of space, communicating via digital space while he physically embodied the dance in the studio. Though text and email allowed me to immediately communicate with Lloyd in rehearsal it did not physically place me in the room with him. Had we used video chat instead, we could have achieved this. But not without inserting myself as authority into his creative process, which was something I strived to avoid.

Despite the physical disconnection I felt to the dance, I worked diligently with Lloyd to guide his process, offering facilitative feedback based on our discussions of the work via text. As the performance date neared, I wondered how I would feel finally witnessing the work. Would the dance still echo my creative influence that was present in the score? Or would Lloyd’s compositional choices make the dance appear entirely his own? We began this process mid-January and it was not until our final tech rehearsal in late March that I finally witnessed (*With Commentary*). I was astounded by what Lloyd and I had achieved; a solo that married both of our artistic and aesthetic ideals in such a way that neither of us felt choreographic ownership over it. It was as if
Lloyd temporarily assumed aspects of my choreographic mind as he created and embodied this work. Accompanied by his layered detailing of the process, some of which were direct retellings of conversations we had had, the solo was contextualized for audience members allowing them insight into how the solo came to fruition. This added layering of text allows the process of the dance to interact with and frame the product. It allowed for a performed restaging of the research we had conducted throughout its creation.

As dance media theorist Johannes Birringer recognizes, “The new convergences between dance and technology reflect back to the nature of dance, its physical-sensory relationship to space and the world, its immediate, phenomenological embodiedness, it’s lived experience in one place.” As dance continues to be extended into the digital sphere, new understandings of the nature of dance take shape. Space and place are redefined as technology bridges physical distance. Embodied physicality is captured and extended into the digital realm. Networked connectivity records, links, and broadcasts dance artifacts across a global community of contributors. It creates new avenues for collaborative exchange as the dance is passed through various states of embodiment. As DeSpain acknowledges:

The philosophical and aesthetic challenges presented by some of the work now combining dance with new technologies can be so

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profound that critics, scholars, and even the artists themselves will be forced to redefine and reassess how they understand and interpret dance.\textsuperscript{35}

The creative processes of \textit{Split Screen} and \textit{(With Commentary)} served as embodied investigations of the relationship between dance and networked communication though there is still much to be discovered about this technology as a means for choreographic collaboration and exchange within the 21\textsuperscript{st} century.

I first set foot into Nashville’s Tavern donning a flannel shirt, ripped jeans, and leather boots. Like many first-timers, after hearing the words “line-dancing” I felt the need to dress for the occasion. I have never been particularly interested in country music, nor do I find that I personally identify with country western culture yet still I put on my country best and prepared for a night full of synchronized social dancing.

As I approached the Rochester area line-dancing bar, the building’s wooden, saloon style architecture confirmed any pre-conceived notions I might have had. This place was the epitome of country. Or at least I had thought. The environment inside, I soon learned, told a much different story. Yes, there were the expected cowboy hats, cowboy boots and even the occasional bolo tie, however, what I had not anticipated was the amount of fitted hats, baggy t-shirts and designer sneakers I came across. Heading into this experience I had unwittingly assumed that I would be engulfed in country western culture, so, naturally, the diversity of participants took me by surprise. Imagine my amazement, then, when the music suddenly shifted and cowboy hats, fitted hats, and all those in between started grooving to the Cupid Shuffle.

Needless to say, line dancing surpassed my expectations and Nashville’s has since found its way into my weekly schedule. However, while I thoroughly enjoy line
dancing as a social practice, it is the complex cultural environment it has fostered that is perhaps of most interest to me.

As an artist and scholar, it is hard for me to experience movement, even socially, without analyzing it in some way shape or form and while this may seemingly contradict the purpose of social dance practices there is something about the relationship between line dancing and cultural mobility that begs for further investigation. How are line dances created and disseminated cross-culturally? How might certain characteristics of the form support this mobility? Line dancing has a long established tradition of embodiment within various social and cultural contexts. Think for a second of the number of line dances you yourself have participated in, it’s probably more than you’d realize. How many times have you done the electric slide, the chicken dance, or even the Cha Cha slide, and think about the variety of places where these dances might have occurred.

Unlike most social dance forms, which are highly stylized and defined by the culture in which they were created, line dancing seems to operate as a structure that participating cultures embody to reflect their aesthetic values and preferences. The choreographic nature of the form seems to readily lend itself to global, cross-cultural embodiment and stylization. Perhaps it is this sense of mobility that allows the form to be widely practiced and appreciated by a variety of participants. As dance and cultural theorist Jane C. Desmond explains, “In studying the transmission of a form, it is not only the pathway of that transmission, but also the form’s reinscription in a new community/ social context and resultant change in its signification that it is important
to analyze.” To this end, I will frame and analyze my ethnographic experiences as both participant and observer at Nashville’s Henrietta to unpack dynamics of transmission and mobility across local and global (digital) networks.

**STAY IN LINE**

A question of form and structure

The music starts as the DJ calls out the dance’s name. There is a quick exchange as participants enter and exit the dance floor. They fall into lines spanning the width of the space and with a “5-6-7-8,’ the dance begins.

As mentioned previously, line dancing, in contrast to many social dance practices, is rooted within structured, choreographed dances. These dances, which vary in length and difficulty, all follow a similar, overarching structure. Each dance is comprised of a set sequence of steps that participants execute in unison. After performing the sequence once through, the pattern ends facing a new direction, or wall, before it repeats. Depending on the specific dance, the sequence may utilize either one-wall, two-walls, or four-walls, but all are individually executed in rows of parallel lines.

This seemingly simple recipe provides choreographers with a basic structural form that their dance must follow in order to be considered a line dance. And while there are several steps that have become common within various line dances, there

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seems to be little to no limitations regarding movement vocabulary. Consider for a second the difference between the movements of the Macarena in comparison to the Cotton Eyed Joe. It is not the steps that make it a line dance, but the structure in which the steps are organized and executed. Considering line dance as a structure that choreographers actively employ provides a renewed perspective on the forms ability to migrate across cultural divides. Rather than being rooted in a specific culture or context, line dancing, as a structure, would provide a vessel for creators to fill with their own aesthetic preferences and cultural values. Not only that, but having an understanding of the structure can also provide participants with a means of grasping and connecting to dances created outside of their cultural experience.

Space seems of particular importance within line dancing; specifically the organization of bodies in space and an emphasis on directionality. Looking first at how the space is organized there is a clear separation between participants. Each individual has their own space within their own line that is maintained throughout the various twist, turns, and travels within a dance. As professional country western line dance instructor Christy Lane points out, part of the appeal of line dancing is the, “rugged individualism that it represents.” She continues later to state how, “It is easier than other fad dances and it does not require a partner.” The idea of rugged individualism has been a part of American culture since President Hoover popularly used it in the early 1930s and to this day it carries certain connotations surrounding self-sufficiency.

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38 Ibid. 3.
and autonomy. In its spatial organization and execution, line dancing echoes this notion of independence. Dancers do not have to depend on anyone but themselves in order to participate nor do they have to come in physical contact with another individual.

This notion of individualism also affirms values of digital culture that have been inscribed through our engagement with technology. The concept of networked individualism highlights the, “shift from ‘place-to-place’ communication to ‘person-to-person’ communication; or from ‘interhousehold networks to interpersonal networks.’” As opposed to antiquated technologies that fixed communication platforms to a specific location (landlines, payphones, desktop computers), the mobility offered by new technologies (cellphones, laptops, tablets) further isolates and accentuates the individual user. And while this technology aims to connect its users, it can also serve to physically separate users from embodied interactions with people, place, and community.

Perhaps it is this sense of individualism and separation, the standard of maintaining an established distance between oneself and others, that makes line dancing appealing to participants within a technologically driven age. However, even with this sense of individuality, there is no escaping the fact that the dance is being done in a community setting. As theorist Miriam Erez states in her book *Culture, Self-

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identity and Work, “Despite the individualism expressed by some and a desire to pursue individual goals, our actions take place within a carefully orchestrated social reality of interconnected individuals.” Even the most self-centered practitioner cannot avoid the fact that they are operating as a single part of a larger whole. Such concepts of community and the individual are largely defined by the established values of a particular culture or group. As both are present in line dancing, practitioners have the ability to transpose these values into their physical understanding and embodiment. Where one person might place greater value in their personal movement experience, another might favor the sense of community experienced through the dance.

To this end, participants are given a certain agency surrounding proximity and intimacy. While the structure of line dancing dictates spatial proximity, this safe distance offers agency in regards to social interaction and intimacy. Just as digital interfaces can provide a sense of security within social encounters, parameters of distance can afford a similar sense of security among line dancing practitioners. When socializing over the Internet the absence of physical, embodied interaction alter a users sense of intimacy and vulnerability. As such users are more open to honest interaction as fears of criticism or rejection are minimized or at the very least easily detached from the user’s physical being. In a similar vein, the standardization of space provides a fail safe for social interaction within line dancing. Participants can choose to engage socially but successful participation is not dependent upon social or physical intimacy.

Any unsuccessful advances or interactions do not discount one’s validity as participant and there is always the ability to return to the default parameters of space and proximity.

**BUT WHICH WAY IS THE RIGHT WAY?**

*Line dancing between local and global communities*

I never formally learned to line-dance, if formal is even the right word. What I mean to say is, though I know Nashville’s offers them every week, I have never taken a lesson. And I don’t think I’m alone in this. Each week I watch as people line the edge of the dance floor, eyes glued on the dancers who seems to demonstrate a clear understanding of the steps. The onlookers track each movement as they try and grasp the sequenced pattern until they establish their own understanding of what the dance is. Granted different people catch on at different paces but eventually the sequences become engrained in your memory and before you know it, you have built up your own repertory of line dances in your mind.

It wasn’t until I realized how large my mental repertory had become that I began to consider where the dances came from. Up until then it had been a matter of learning and memorizing so that I could actively participate each night. But as the dances became embedded in my muscle memory I began to question what I had “learned.”
Like many social practices, both movement and otherwise, line dancing is predominantly passed on through oral tradition and embodied practice. In other words, those who have lived the dance teach and pass on the dance to future generations. However, this mode of transferring information can raise concerns, especially within the set choreographic nature of line dancing. Similar to oral tradition within ballet, there are questions of authenticity or accuracy when information is translated from one body to another. Think of it for a moment as if it were a game of telephone. One person’s version of the step gets passed on to another person, which gets passed on to another person, and another, and another. Within this process individuals interpret things differently or misunderstand what is being relayed to them or even consciously change the information for various reasons. What we’re left with at the end of the day is a current understanding of a dance that may or may not have existed in a similar way at some previous point in time. So with each new practitioner comes a new restaging, a new interpretation of what that dance is or could be.

However, as technological advancements allow line dance practitioners to connect to a digital community, oral tradition could no longer be the sole means of perpetuation. In recognizing the limitations of oral or embodied tradition within the digital sphere line dancing has established a means for textually documenting and preserving dances online via stepsheets. These disembodied renderings of a dance include the title of the dance, the choreographer (if known) the music that accompanies the dance as well as a count-by-count breakdown of the step sequence.
Any one with access to the Internet can log on to sites like KickIt\textsuperscript{42} or Copper Knob\textsuperscript{43} and gain access to thousands of stepsheets free of charge. Sites like these further complicate the transmission of line dancing as they provide an ongoing digital exchange of information.

As it is shared across communities, line-dancing practitioners engage in the process of glocalization.\textsuperscript{44} In this process, participants simultaneously navigate and engage with both a local and global (digital) line dance community. For example, of the numerous dances performed at Nashville’s each week, many were created at various parts of the United States and are currently practiced worldwide.\textsuperscript{45} To this end, practitioners who embody the dance are not only sharing in the experience with their local line-dance community but with various communities around the world through a shared movement experience. Practitioners simultaneously occupy a local and global presence as they engage in and share dances online. This allows for cross-cultural connection through a mutually enforced appreciation of line dancing as a practice. As digital theorist Esther Milne states:


\textsuperscript{43} “COPPERKNOB STEPSHEETS.” \textit{Copper Knob}. Accessed August 08, 2016. http://www.copperknob.co.uk/.

\textsuperscript{44} I borrow the use of the term glocalization from Holton, 2000. Originating in the field of Japanese marketing the term has since been applied to cultural studies to “suggest that the global and the local may be mutually reinforcing rather than necessarily in conflict.”

\textsuperscript{45} Specific examples of these are \textit{Moves Like Jagger} which was created in California by Bracken Ellis and \textit{Shakin’ My Head} by Guyton Mundy and Chris Atkinson which can be seen being practiced in the UK, France, and China through several videos shared via YouTube on CopperKnob.com
“Presence” is a major focus for researchers and artists of digital culture, computer networks, and new medical, communication, and entertainment technologies... Presence refers to the degree to which geographically dispersed agents experience a sense of physical and/or psychological proximity through the use of particular communication technologies.

Through video sharing and line dancing sites like CopperKnob and Kick-It, line dancers are able to transcend geographical distance and establish presence amongst a globalized network of practitioners. This glocalization further complicates the mobility of line dancing as it allows for immediate, unmediated cross-cultural exchange.

WHERE ARE YOUR HANDS?
A question of embodiment

Two men stand in line directly next to each other. They are moving their way through Born to Boogie, which consists of a series of grapevines, scuff steps, and toe touches. Their feet move seemingly in unison and both have their arms slightly rounded and hands clasped one on his belt buckle, the other on the crotch of his pants.

This subtle difference in movement embodiment is yet another important area of focus. How can two dancers who are both established and accepted practitioners do the same “steps” and yet have such a different sense of style and embodiment? How does line dancing allow for individual stylization and is it possible for a stylization or embodiment to fall outside of what is viewed as acceptable? Somehow the form allows both country western and hip-hop stylizations to simultaneously exist and be accepted in a context that would presumably value country western culture. This notion of style
is particularly relevant as it directly reflects the bodily values and experiences of each participant. Consider for a second other forms of social dance like salsa or swing. Each of these forms has a clear delineation in terms of style and aesthetic value. For instance, if someone were to attempt to embody salsa movements with a hip-hop sensibility, it is likely it would not be acknowledged as salsa.

Yet this is not the case in line dancing. As cultural theorist Stephen Greenblatt states, “One of the characteristic powers of a culture is its ability to hide the mobility that is its enabling condition.” 46 This concept of mobility operates on multiple tiers. For starters, there is the idea that the dances themselves can and do cross social, economic, and political divides and are embodied by different cultures in different contexts. However, there is also cultural mobility for the dancers themselves, which allow people of various backgrounds and experiences to embody the same dance but with their own sense of bodily culture, style and aesthetic values. It is perhaps this aspect that makes line dancing appealing to such a diverse range of participants. In acknowledging the globalization of an entity it inherently raises question surrounding its cultural fabric. Will the intermingling of cultural influences blend into a homogenized cultural form? Or will it assume a more complex hybridization as it brings cultures into interrelation?

My intention is not to attempt to answer these questions as an argument can be made for either one. Homogenization can be evidenced in the global consumption of a

westernized form. However, hybridization is also evidenced as diverse participants embody new understandings in multicultural contexts. Instead, I am more interested in how this globalization is achieved through the documentation and dissemination of dances online that in turn inspires the embodiment of shared movement experiences. Unlike the contained network that exists within Charlip or Ritchie’s system of collaborative creation, in this network of transmission digital dances exist independent of time and can be accessed by any individual with interest and Internet connection. This allows for the dance to circulate and recirculate at various points in time. For instance, a dance initially made popular in the 1980s, like The Tush Push, can have a resurge of popularity decades later inspiring the revisiting of older iterations (videos or stepsheets) and the addition of new iterations as it is re-realized in a new age. Utilizing the line dance form, the final two sections of Please Subscribe serve as an embodied exploration of this process.

Part 1: FLASH MOB

Sharon Jones & The Dap-Kings’ “Stranger to My Happiness” enlivens the space with playful soul. Nearly a dozen dancers arrive into the space some on their own, others in groupings of two or three. They witness as two women drop to their knees and bump their hips side to side, hands cupping the back of their thighs. One by one, the surrounding dancers find their way into the dance. They weave through a series of complex spatial relationships moving in unison with the group only to break away to
find new interactions. The movement material explores a series of quirky, off-kilter movements executed with a sense of lighthearted socialization. Gestural explorations of the hips and heels juxtapose with sweeping full-bodied movements that navigate precise directional shifts. Small groupings of dancers burst into action to find short-lived moments of unison interaction before getting swept up into another group of bodies.

Through this playful weaving of fleeting relationships, a trio of dancers find themselves in a diagonal line, separating the remaining dancers. Echoing the screen that shaped the space in Split Screen, their buoyant, spunky movements takes their column through a series of lateral shifts, rotations, and progressions that confine and define the space for the other dancers. Subtle references to the previous vignettes are sprinkled throughout this post-modern flash mob.\textsuperscript{47} Buffering is referenced as the dancers use their opening movement phrases to progress along the diagonal, this time with a newfound sense of phrasing and suspension. The complexity of the dance is slowly stripped away to a final unison phrase that has been interspersed with several spatial and movement references from the advertisements that were introduced earlier in the playlist. It offers a choreographically complex take on the flash mob and works to deconstruct it until it assumes a more recognizable state. All the while it serves as a

\textsuperscript{47} I use the term post-modern flash mob to describe the post-modern choreographic tools that were used to deconstruct, reconfigure, and disrupt the traditional form and structure of a flash mob. It also acknowledges the non-traditional movement vocabulary that is of a post-modern aesthetic as opposed to the traditional commercial stylization of flash-mob choreography.
culmination to the playlist, interweaving and subtly reiterating all that has come before.

Part 2: LINE DANCE

Missy Elliot’s “WTF (Where They From)” explodes into the space. For the first time the lighting spills out into the audience, breaking the fourth wall and inviting them into the space. Other dancers from earlier in the concert flood in from backstage. A crowd mixed with performers and audience members claims the stage. A “5-6-7-8” call from somewhere within the crowd and the dance begins. In rows of parallel lines the dance begins facing downstage. The crowd moves in unison through repetitive chugs and crossing heel digs. There are toned down references to material we have seen in the previous section of the dance, a slapping of the calf, an elbow initiated turn. The patterned movement material shifts the crowds facing to stage left before making a last second half turn before the sequence restarts. Traditional in its structure, the line dance takes a clockwise rotation as it replicates the 40-count sequence at each new wall.

On any given night, there are a handful of courageous individuals who have jumped into the dance without knowing the material. Surrounding dancers who are more familiar with the steps begin calling out the sequence in assistance. With each repetition of the sequence, participants become more comfortable, more familiar with the dance, which creates space for investigation and play. Stylization and personal
flare are welcomed additions to the dance with participants finding ways to complicate sections of the material. A simple grapevine to the right is taken in and out of the floor. A toe touch to the side is taken off the floor into a full-bodied lateral tipping. Stylized arms are layered on top, participants find ways to reverse the material or change facings to find moments of interaction with the people around them. It celebrates the diverse community that has gathered to share in this movement experience.

The second portion of this final section is perhaps of most significance here as it actively explores the dissemination of movement information through multiple networked channels. In creating the line dance, I strived to choreograph something that was a little less traditional in regards to movement vocabulary but that still had a sense of accessibility. The cast and I created the original, perhaps most complex version of the line dance and from there worked to simplify some of the steps until we has three versions that varied in difficulty. Utilizing this three variation, myself along with two cast members quickly filmed a video tutorial that detailed the structure of the dance and broke down each movement step by step. As the lead figure in the tutorial, I demonstrated the intermediate version of the line dance while the other two dancers showcased the beginning and advanced versions respectively. We went through the material step by step, reminding viewers to skip back and re-watch portions of the video if needed before demonstrating the dance in its entirety. At the end of the
tutorial we plugged the dates, times, and locations of our performances where audience members would have the ability to join us onstage in the dance.

After some minor editing and effects, I uploaded the tutorial onto YouTube and began sharing the link. Facebook posts, tweets, email blasts to dance faculty to share with their students who would be attending the performances, any avenue I could think of I utilized. The cast assisted in perpetuating the dances reach by sharing the link and informally performing the dance at local establishments whenever Missy Elliot’s “WTF (Where They From) would play. The dance quickly spread in these few weeks leading up to the performance and I was even able to teach the dance in person to students in a few non-major dance classes. As each new individual encountered the dance, they would in turn share it with their own network of family and friends. The interest and excitement in the dance was constantly abuzz and I quickly realized the widespread reach this network had created.

In this multi-tiered network of transmission, the dance navigates both embodied and disembodied means of exchange. In some instances oral or embodied tradition is used to teach the dance to friends or family that live in close proximity. In others, the online tutorial serves as a more permanent artifact that can be unlimitedly accessed regardless of distance. Dance technologist Johannes Birringer acknowledges this aspect of online video transmission commenting how, “space is dematerialized. Movement is captured, commuted, transferred, and reconfigured/rematerialized

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The extent of how many times it is transferred or reconfigured is entirely
dependent upon societal interest in the art object. In this specific instance, the potential
of performance paired with the increasing popularity of Missy Elliot’s newly released
hit likely made the dance feel fresh and relevant. It afforded individuals the
opportunity to not only engage with the dance within their own networks but
ultimately provided the opportunity for these vast networks to gather together in a
specific place at a specific time and physically connect to a broader community.

In the three nights the line dance was performed there was anywhere from 30-
50 dancers that participated. Ranging in age and experience, these individuals were
only a sampling of the digital community the dance may have reached. It reflected
only those within close enough proximity to attend the performance as well as those
that felt confident enough to stand up and socially dance in front of a crowd of
onlookers. In fact there is no concrete way to gauge the true reach of the dance due
primarily to the various avenues of transmission that were used to disseminate it but
also due to the fact that the dance could very well still be in circulation. The tutorial
still exists publicly on YouTube, which affords an unrestricted potential for the dance
to be re-embodied/rematerialized at any given place or time.

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49 Birringer, Johannes. "Dance and Media Technologies." *PAJ: A Journal of Performance and
Perpetuating the Network: YouTube and Viral Movement Trends

As a phenomenon, viral movement trends operate in a similar nature to my intentional dissemination of the culminating line dance in Please Subscribe. However, embodiment plays an entirely different role in the perpetuation of these trends. Unlike the line dance in Please Subscribe which was at times passed on and ultimately realized in an embodied state, viral movement trends are only momentarily embodied so that they may be recorded and contributed to the disembodied collection of interpretations. For example, the Harlem Shake\textsuperscript{50} video trend that went viral in February of 2013 had approximately 4,000 recreations uploaded each day leading to around 40,000 disembodied variations in total by the time it phased out.

Within the span of 14 days, thousands upon thousands of individuals worldwide participated in embodied restagings of the dance that were recorded and uploaded to YouTube as a final manifestation of their version of the dance. The need to embodied restagings or re-recordings of these movement trends is rooted in the nature of video documentation, “it remains the same with every viewing of the film. The movement is no longer developing, emerging”\textsuperscript{51} It is the engagement with and slight variations from previous iterations that allows each upload to provide new understandings of what the dance is or could be.


For the *Harlem Shake* in particular the formula of the dance was strictly adhered to. A single individual, usually helmeted or masked, would be dancing subtly to the electronic sounds of Baauer’s *Harlem Shake*. Surrounded by individuals who are unaffected or seemingly unaware of their presence the dancer solos for the introduction of the song until, suddenly, the bass drops. The video instantly cuts and the entire group is now dancing wildly until a roar in the music prompts the video to cut out. The entire dance lasts about 30 seconds. As the trend continued to develop, videos started surfacing where participants donned quirky costumes and yielded props as they danced. Some of the most popular renditions were created in unconventional environments (underwater, on a plane, even in the cab of a fire truck) or by unexpected groups of people (the Miami Heat, the Norwegian Army, and many law enforcement branches worldwide participated in the trend). Each upload offered a new community, a new context for viewing and understanding the dance.

By engaging with these viral trends, online users are able to extend their embodied experience into the digital realm and contribute to an ongoing process of creation and exchange. Users are swept into the popularity craze and receive validation for their efforts through video views and comments from other users. As cybertheorist Giuseppe Mantovani illminates, “‘physical’ presence in an environment is in principle no more ‘real’ or more true than telepresence or immersion in a simulated virtual environment.”52 By participating in these trends, individuals are able to maintain their

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presence and relevance within online, digital culture through a shared embodied experience of the dance. It necessitates that participants momentarily disconnect from their digital networks and engage in the active process of embodiment before the video can be captured and shared. It is an unprompted, unregulated realization of networked art that is conducted by and through our digital cyber-culture.
CONCLUSION

The embodied research process conducted in the creation of Please Subscribe provided me a practical and pragmatic investigation of several modes of embodied and disembodied movement transmission. Investigating a variety of technological mediums and pathways this process allowed for a survey of how dance engages with and is perpetuated by technology. It is rooted in the understanding that even within this digitized era, “Bodily movement is essential to an understanding of all aspects of life.” The process of technological embodiment affords the opportunity to not only make sense of the technologies humankind engages with but also illuminate how this engagement can affect the body. It broadens our understanding of embodiment as individualized physical expression and identity are made manifest in digital environments.

Not only that, this research illuminates how digital communication has impacted aspects of distance, proximity, and time in regards to both digital presence and disembodied movement exchange. It demonstrates how, “information technology has meant not only the obliteration of the tyranny of distance but also the creation of a global virtual reality, in which time presents no fundamental barrier to social exchange.” As society continues to engage with and utilize digital networks as a


means for communication, these modes of transmission will continue to gain complexity. Embodied meaning making and active investigations of these digital communication networks hold the potential for deeper understandings of what it means for humanity, broadly, and dance, specifically to engage with these technologies. If nothing else, my hope is that this thread of inquiries will, as dance critic Ann Dils so succinctly puts it, “help realize what it will mean to be human in the twenty-first century, as individuals and communities shape and are shaped by an environment that is increasingly a complicated network of the natural, the socio/cultural, and the technological.” 

Through integrated researching, writing, and choreographing, this thesis made material notions of embodiment and disembodiment that challenge current conceptions of ephemerality in dance.

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