

## Abstract

Through a series of improvised performances, the performer is videotaped while attached to a variety of digital platforms that project images on a screen, images that are generated in response to movement, in interaction with the performer. Analysis includes an open-ended interview with performer and artist technician, following the performances, attending to places of resistance, intimacy, reciprocity, creative collaboration, awareness and revelation through embodied performance. This Performative Inquiry is seeking the heat of improvisational moments of meaning-making in interplay with technology and runs tandem to a narrative based on the myth of Icarus and his wings of wax and feathers soaring towards the heat of the sun.

## Icarus and the extension cord



*Pursued by enemies, Icarus and Daedalus seek refuge in a cave, but soon realize that they are surrounded. "We are doomed!" cries Icarus. But his father counsels him to have courage, to look beyond the obvious. By the light of their candles, he spots several dead birds on the ground. Although rudimentary, he understands he has the tools that will save his life and that of his son. To escape, Daedalus builds wings for himself and Icarus, fashioned with feathers and wax. But he knows that there are risks to this design. He pushes nagging thoughts of danger to the recesses of his mind and continues with the task at hand, turning the wings over to examine his craftsmanship. He feels a surge of power vibrate in his hands, trumping his fears as he acknowledges the ingenuity of his design.*

Drawing on literature from performance studies, arts-based research, and digital literacies, we ask,

How do we allow the heat of immediacy to penetrate the oft-perceived austerity of technology in pedagogical and performative endeavors?

What tensions exist between technology, performer, artist technician and performance that construct new meaning in embodied performativity?

How does the performer, entangled in cables, extension cord, and digital interfaces, remain present to our first creative impulses?

“Big questions,” says Lynn. “How do we begin?”

We are now being transported to an old firehall transformed into an photographic studio in the middle of a Vancouver university on the edge of the sea. Bob Pritchard, an artist technician adjusts the lighting, his camera slung around his neck. Kathryn Ricketts, performing artist and arts education scholar located at the university on the top of a mountain pulls on an oversized green wool coat, and dons a felt fedora on her head. Costume in place (almost) she has now embodied the research character LUG who she has been working with for the last 5 years. Her travel-worn leather suitcase with fine stitching sits at her feet. Her feet are naked.

“Damn, I forgot to bring my shoes.”

“What about mine?” Lynn points humbly at her Mary Jane shoes, scuffed at the toes.

Lynn’s curiosity as an arts education researcher who has resided in both universities lies in the intersection of performance, pedagogy, and technology; she has taken on the role of participant-observer with an emphasis on observer (or so she thinks) in this shared Performative Inquiry.

Kathryn views the shoes critically.

“They’ll do. But you’ll have to remember to bring them whenever I perform.”

“Okay, we’re ready to shoot,” says Bob. Kathryn positions herself, suitcase in hand in front of the camera. She strikes a number of shapes from earlier improvisations she has performed as the Lug character. Lynn sits at the sidelines, in socked feet, watching as her research colleagues circle each other, each testing the temperature of the other, as they seek to create together. What stops will occur in the meeting place of these creative researchers? Who will step on whose toes? Our hope is that artist and technician will take flight as technology and performance become embodied in the heat of the moment.



### **Performative Inquiry as Moments Calling us to Attention**

Five years ago, the three of us decided to research the interplay between performance and technology, with attention to the challenges and tensions that the performer and artist technician encounter when seeking to work within a mutual creative space of inquiry. Our research over this time has sought to interrogate and trouble the binaries of performance and technology; we are seeking immediacy, impulse and viscosity in relationship to digital interfaces within a performative context through fractured narratives. We are seeking these understandings through two distinct and yet complimentary lenses: Performative Inquiry and Embodied Poetic Narrative.

Performative Inquiry recognizes engagement in the arts as an action-site of learning and inquiry.<sup>1</sup> Through the creation process, and as experienced during performance, emergent moments arise, moments that Appelbaum (1995) call stops, that call us to attention. What happened? What matters? So what? Who cares? What might we learn from such moments experienced within an event, encounter, action, response? As researchers, attending to those moments that tug us on the sleeve, like a child, opens possibilities of what else might be within (or just beyond) reach of our understanding. Such moments, our reflection upon them, and the learning or insights that emerge are moments of recognition (Fels & Stothers, 1996, Fels, 1998, 1999).

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<sup>1</sup> For Performative Inquiry, see Author (1998, 1998, 2011, 2012).

Such moments of recognition are temporal, ephemeral; our research in performance is not easily captured (Phelan, 1993). Through reflection, interviews, performance on the page, we seek to document our learning. Through the artefacts that we collect: stop moments, shared memories in conversation, stories, photo-fragments of lived experience (van Manen, 1997) we come to an understanding of the emergent themes, issues or insights that our research opens to inquiry and reflection as our performance unfolds. Performative Inquiry invites collaborative reflection through shared dialogue that may offer illumination, renewal, a new turning in our understanding and meaning-making (Fels & Ricketts, 2012).

### **Embodied Poetic Narrative - Fracturing New Recognitions**

Embodied Poetic Narrative is a triangulation of body, story, and object intersecting through creative improvisation, evoking fractured narratives that unfold as performer(s) engage. Interrupting the body's centre of gravity disrupts the axis points of conventional 'knowing', thus surfacing possible new understandings of 'self' and 'other' and the interplay between. Lived experiences are re-interpreted and re-storied and then shared and re-imagined with others. Preconceived worlds are tipped upside down; a body in movement unlocks and unfolds secrets, lost thoughts and treasured images. Increased heart rate and rapid breath provoke an availability of performer and witness to imagination and further, to creative exploration and deeper understandings of 'self' leading to a broadened and deeper understandings of 'other' and inviting renewed understanding of the interplay of 'self/other'. In the case of Kathryn's work with Lugs through Embodied Poetic Narrative, she works/plays with a mindfulness toward kinaesthetic astuteness, weaving the tools of improvisation with an attentiveness to each moment. Stephen Nachmanovitch (1990) refers to this astuteness as "the power of free play sloshing against the power of limits" (p. 33).



In the case of this research, we worked with the cameras and the capture of images, bodyshapes, and movement as we navigated cables, body sensors and wires, evoking embodied metaphors and fractured narratives. By moving away from pre-conceived notions of technology and related stigmas and apprehensions, and by committing ourselves to processes that sought to stay true to an immediacy and viscerality, we built dynamic spaces of inquiry, fostering the possibility to access our first most creative impulses. We disrupted what we may consider to be domain knowledge of any given performance performed with any given prop or script or concept. Through Embodied Poetic Narrative, we fractured the signifiers of our notions of inquiry so that performance and performer(s), come to shared and individual understandings, thereby creating intersections and nodes of commonalities with the purpose of cultivating spaces of community and meaning-making within our collaborative team and with those who witnessed us in our *various* presentations.

Our research, in this particular research project, is emergent through the reflective praxis of Performative Inquiry that attends to the embodied limitations of technology and the horizons of the artists' imagination. When designing our research, we decided that we would allow, actually invite the unexpected to emerge. As we negotiated the interplay between technology and performance, we would come to an understanding of the process, as it unfolded, and through our encounters, in action and dialogue. In the narrative of the inquiries below, excerpts from transcripts of our post-inquiry dialogue conducted several months following, are included in the text, illustrating the issues, recognitions, and meaning-making that has evolved through our flight *towards the heat of* technology.

### *Inquiry One*

*Daedalus warns his son to fly neither too close to the sun, as the heat will melt his wings, nor too close to the sea, as water will soak the feathers, making it impossible for him to fly. He understands that his son is distracted at the best of times and tries to emphasize the value of this advice. He sees that his son is busy rearranging the world and his relationship to those he encounters, and is as yet not sure how to make the connection. It is like having the wrong voltage, there is simply no connection between the tools at hand, and the desire to take flight other than possibly the extension cord that dangles in his hand.*

First, we needed to figure out how to connect the performer to the technology, and in doing so, we learned how to navigate the creative and collaborative challenges of both performer and computer technologist who was himself a digital artist.<sup>2</sup> Bob, as the technologist, was charged with creating a system that would allow us to engage in our inquiry. He hooked Kathryn up with sensors and wires, which in turn were connected to a digital platform housed in a computer. Each movement triggered a series of pre-chosen images on a large screen behind her.

Rudimentary in design, the setup worked as follows: When the performer raised her left or right arm horizontally (x-axis), one image would appear on the screen. When Kathryn repeated the moment, the same image re-appeared. When she moved her arm vertically (y-axis), another image would replace the first. Or if she moved either arm diagonally, the screen would go black, leaving no evidence of her movements on the screen. For the first half hour, Kathryn experimented with the possibilities and limitations of her movement and image-making. She explored how movement vocabulary could move beyond the task of triggering the images, seeking narrative or imagistic correlations between movement and slide shows.

Our first inquiry proved challenging for the performer. Having witnessed many of Kathryn's previous Lug improvisations, I noted that her response to the technology while initially enthusiastic became troubled, as her ability to improvise without constriction was hampered. She appeared entangled, and increasingly frustrated, her movement restricted by the length of the wires attached to her arms, by the limited images appearing on the screen. Lug on a tech string, a tech puppet.

"I think you need to interact more with the screen, and the images that appear," Lynn suggests after awhile. Although nodding in agreement, the performer responds with an improvisation with a map that she had secreted in her suitcase, her back to the screen. Lug plugged is a troubled flight. *What now*, Lynn wonders.

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<sup>2</sup> For example, *Breathe On Me* (2004) for concert accordion, sound/video clips, and Max/MSP/Jitter; *Escape My Soul* (1996) for bass flute, sound clips, and Max/MSP; *Washed in the Blood* (2011) for violin, French horn, percussion, sound/video clips and Max/MSP/Jitter.

This lack of connection is paralleled in digital media theorist Darin Barney's (2004) work, *The Vanishing Table*, as he notes the loss of connections in communities as a result of technology. Barney calls this resistance perceived in the performer the trauma of dislocation as he proposes that although communication is essential in the building of community and locatedness, it is the very act of techno-mediated activity that can actually sabotage the efficacy or even the fostering of these connections. "My suggestion here is simply that community is impoverished, not necessarily eliminated, by technologically-sponsored wordlessness, and that digital media participate in this sponsorship" (p. 63). Bob, on the other hand, seemed pleased with the success of his work; while technologically primitive in design, he had succeeded in connecting embodied movement to digital image.<sup>3</sup>

How does technology perform us? What interrupts our learning, our creativity, our performance, our engagement with others? What resistance emerges when we find ourselves compressed into compromises and accommodations when plugged in? Yet it is within this site of tension, that glimmers of the possibilities begin to emerge. Kathryn speaks to how despite the limitations of the sensors, working with the technology called her to attention. In learning how to work with the sensors, a mindfulness of her movements in relationship to the technology and how she might co-create in its presence emerged.

K: I had to [figure out] this is x, this is y; it so it created that kind of thoughtfulness around what I was going to choose so that even if it didn't succeed, it set me up for that part which was that you are going to see images to that. So even if it didn't work, it set me up for the next part up—a mindfulness about what was coming up. So even if the wires didn't work it set up a mindfulness instead of [working] impulse to impulse.

While both Kathryn and Lynn had perceived Bob's role primarily as that of the computer technician, Bob was independently incorporating his own creative input into our inquiry, as he was inspired by Kathryn's Lug character, who in manner and garb appears as an unidentifiable immigrant or refugee without borders or a place of belonging.

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<sup>3</sup> Ideally, in the future, we will have access to wireless technology so that we might untangle the performer from the fixed attachments of technology.



The work of the Lug character is like a vessel that catches the stories of others. These kinaesthetic investigations are not fleeting documentaries of lives lived and lost, nor does Lug act as a conduit through which another story is told. Rather she portrays rhizomatic journeys, tangled and woven impulses, fractured narratives, belonging to both individuals and others. This process emphasizes the possibility of suspending historical knowledge and inviting a revelatory relationship to the production of new understanding. Negotiated understanding can fuel the building of stronger compassionate communities and support participants in service of newly conceived and inspired learning spaces.

B: ....I had been playing the concept of presence and absence. And you [Kathryn] had the control [through the sensors] whether you were present or not. Is this a nobody in our society and we don't see these characters in society, how do we bring...?

L: But that's beautiful I had no idea...

Kathryn and Lynn learn that although delegated to be responsible for the technical side of our Performative Inquiry, the artist technician had wanted to make his presence as an artist meaningful. Technology solely as a form without content cannot inspire, and content necessary to approach the heat of creative impulse must be meaningful, innovative, evocative. Thus, the artist within Bob sought, through his work with us, to speak to a creative curiosity and expression necessary to be embodied within technology, so that our collaboration might touch the heat of embodied performativity and carry us into flight.

### *Navigating Interdisciplinary Tangles*

“What I need is a catalogue of photographs of Kathryn, her suitcase, in different positions,” Bob informs us, “I’ll put them into the computer, so that we have a series of random photos that can be called up, depending on how she moves.” His plan, he tells us, is to insert the photographs into an aleatoric computer program.

“A what?”

One snag that we experienced working together was the language and concepts that each of us used. For example, our discussion about how the still photographs might be displayed on the screen required translation. Terms needed to be explained, each new term offering entry into the other’s way of being in the world. It became obvious that the conceptual language of the different fields would need to be navigated, so that we might understand what was being said, and why.

“Aleatoric. ‘Alea’ is Latin for dice. A limited set of outcomes.”

We both look at Bob blankly. “What I’ll be doing,” he explains patiently, “is selecting a certain number of photographs which will be then programmed to appear, not randomly, but within a certain set of possible configurations.”



“That is like what I do with my work!” Exclaims Kathryn. “I create a certain number of positions which become the bank of possible responses from which I create my improvisation. While working from impulse to impulse, I am informed by early movements, which I may recycle into my improvisation. I call that my kinaesthetic memory bank.” This kinaesthetic memory bank is sometimes referred to by improvisers as a ‘score.’

Cieslak of Polish Teatrik Laboratorium, speaks about creating performance material evolving through an extensive process of *via negativa*, a relentless process of rejecting a relatively large percentage of the material explored in rehearsal. When a score is designated, he says it is like a glass encasing the flickering light of the candle. He speaks of the flame as what illuminates the score:

The flame is alive. Just as the flame in the candle glass moves, flutters, rises, falls, almost goes out, suddenly glows brighter, responds to each breath of wind—so my inner life varies from night to night, from moment to moment. (as cited in Schechner, 1977, p. 19)

Schechner (1977) discusses dependability in form constituting the craft of the performer whereas other theatre practitioners speak of the lifeblood of a performer alive and changing but dwelling within a solid structure. Through rapid firing of improvisational creative exploration embraced within a significant timeline, we arrive at a new location in performance, dissolving tacit conventions of boundaries and borders and inviting a mindful yet playful engagement. Playful engagement that emerges within restraints.

“Enabling constraints,” clarifies Lynn, who is starting to feel left out of the conversation, “are one of the conditions of a viable learning system.” In our emerging partnership, we are learning new terms, phrases, an inter-disciplinary connection that enables us to recognize concepts, and to translate unfamiliar concepts into our own locations of praxis.

Similarly, in subsequent inquiries, what Lynn interpreted as a failure of the performer to address the images on the screen, Kathryn informed us that in dance, there are ways of building or indicating relationship, other than visual contact.

K: I think that you thought that I wasn't relating to what was going on the screen because I wasn't looking at it....my kinesthetic memorybank was that I knew all the things that I had done and I was going to reiterate them in some way in that stationary place [performance space]...and that I was also feeling that I was relating to the screen in an other way ... [as] we do in dance which is graining where you're putting your energy and somewhat of your internal focus behind you or beside you without doing it directly with your eyes.

Thus, what may appear to the researcher as one thing, may be simply, the result of a lack of experience, or expertise in the tools and ways of others working in their particular discipline. As we learned to work together, we had to come to understand each other's modes of operation, and negotiate sometimes incorrectly perceived positioning of engagement.



### ***Inquiry Two: The photo shoot***

*Approaching the cliff's edge, Icarus leaps into space, and immediately plummets earthbound. Daedalus hesitates. Should he trust his wings? As his enemies rush in, swords raised, he steps forward, and like his son, falls in gravity. Flapping his arms desperately, his wings catch a momentary lift of air, and amazement crosses his face. "Look," he shouts. "I'm flying!" "Me, too!" laughs Icarus, as he flaps his arms harder and harder. They circle each other, momentarily in sync with the air, sky, flight and each other. They feel electrified as the powerful charges of freedom spark through them. It is short lived for Daedalus as an unexpected flood of disastrous images catch him unawares and all he can see is feathers into dust.*

In the studio, Bob is comfortable, familiar with the space, his actions purposeful, as he clicks photo after photo. Kathryn in her Lug costume creates shapes for the camera, one shape after the other.

"What one should I do next?" Kathryn calls to Lynn.

"Don't pose," Lynn replies, "Just do what you do best, improvise. Impulse to impulse."

Lynn watches as the photographer and performer transform into a duet of movement and response, anticipation and recognition, until, from her perspective, it seems as if they are enacting a reciprocal performance, they are dancing, they are the dance. No longer is the photographer taking pictures, the performer posing; they are movement, capturing and releasing light, turning to embrace the next moment and then the next, impulse to impulse. Here, in this moment, we realize and recognize the heat of technology lifting performance into a moment of flight. A lightness of energy, a heat of connection.

K: I remember from the photo shoot that the proximity was the interesting thing.  
(She says to Bob) You started far away, you were aware of the room, the light,

the paper behind me, the metre far away....you were phutzing about with all that stuff. That's what photographers do....hang on and you'd go over and put something behind the lights, and hang on —and then suddenly you didn't do that anymore, and you got closer and closer and closer until you were really close to me and there was silence. You weren't saying "hold that" or "let me do just do that again" there was just absolute silence.



B: At that point your character was dancing, okay, so we're just moving, we're grabbing the moment here and following was .....at that point we're working.... it doesn't matter where you turn, I've got a sense of my space so I know I can take shots. I can crop if I have to but for the most part we can just go.

K: We all identified that moment....I think we know the moment of that threshold but what constitutes that moment? What makes that moment happen? Is it focus? Is it a certain kind of surrender to an impulse? Or what is it do you think that makes that happen where we stop noticing that the light is refracting here, or that my muscle's hurting if I do it here?

B: For me, it was very much being in awareness. We stopped doing the 'posing', we stopped trying things, we just went with the flow, let's do a performance and it turned from a modeling shoot, if you will....It stopped being a documentation of positions of a character into an interaction, a dance between two people as the lug is doing there, and on the one sense, yes I'm documenting this, but at the same and in the back of my mind I'm looking, where can I this angle, how can I

catch oh I don't oh I like the light here, I like these textures here and doing that but at the same time you're into the flow of following. You become a follower for this in the sense that but to some extent a follower but then as the motion happens to oh I want to take two steps to the left because I want to capture this motion when it arrives at this point and you're quickly doing that—it's like a pas- de deux, if you will, that's going on.

K: That's what I was going to say it sounds like I wasn't the only one dancing.

B: Yeah, exactly.

L: And I went from being Lynn going okay, I'll take notes, what's he saying? to not witness just being here, from observer, not witnessing, to being present to this moment that emerged. The pas de deux as you said. It's really exciting. And I think it really touched on the heart of the work perhaps the work that you both do in terms of how do I get the pulse?

K: .... How do we come into how do we pass through that kind of cold stainless austere sting and stigma of technology and move into the heat of technology? Because of all of our luddite sort of relationship with technology, we started to feel the pulse and the radiance to feel what it could be to be with the camera and close to the dancer, video or still.... even with our sensors and the work that we did with our sensors even though it that was still very superficial experimentation, you know, we felt the heat of frustration...but we definitely felt the heat.

B: .... Those sensors set us up, set us up in the sense of wow isn't it great isn't great to be controlling this stuff. Wow! Isn't it frustrating having it done this way and then when you get past that moment into something yeah this is what we were searching for, this is what we're are looking for.

Then Kathryn says something that gives us pause.

K: It's necessary to go to the point where you are bumping into things....that was the photoshoot. The proximity to the photoshoot....who we were in that process....

Proximity matters. Who we are in that process. Initially photographer and performer, each focused on their individual task, to take a photo, to create stills, they circled each other mechanically, performed by the rules of the photoshoot....it is only when invited to move into a space of impulse and awareness, that roles are discarded, and performance emerges, organic, embodied, in the moment.

### ***Inquiry Three***

*Their enemies are as miniscule ants, as Daedalus and Icarus navigate the skies. Icarus sweeps a winged arm across the expanse. "I will conquer the skies!" he shouts, and diving, spirals in every-widening circles to the deep blue sea below him. Daedalus frowns, "Be careful," he calls, "I'm not sure the technology is up to your antics!" He waves him back begging him to return to his side. He feels the adrenaline of abandonment like an extension cord unplugged and recklessly flailing about him. He knows he is losing his son to a force much stronger than himself and having the foresight of disaster, succumbs to surrender. He unplugs his will to rescue.*

Following the photo shoot, Bob created a computer program that incorporated the photographs he has taken of Kathryn in her Lug overcoat and hat, the borrowed shoes and the suitcase. These images, beautiful in detail, are shown on an overhead screen, while Kathryn performs a Lug for an audience.<sup>4</sup> Moving now, with awareness of the photos appearing on the screen, even when her back is to the screen, she anticipates and responds to the photographs, informed by her kinesthetic memory bank, coupled with what dancers call graining in which the dancer exerts an energy or internal focus of what is beside or behind her, a dancer's ability to sense what is around her. The photos appear by the dictates of the aleatoric computer program inputted by Bob. Kathryn engages in her Lug, informed by the images on the screen, and drawing from her embodied memory of the various body shapes she had created during the photo shoot. Interaction between the emergent Lug and the images appearing on the screen, simultaneously anticipated, dictated, and inspired by the photographs as they appear.

And yet, throughout this Performative Inquiry, the performer maintains her own sense of autonomy. Using the photographic artifacts of the photo session as her kinesthetic memory bank of embodied images, in relationship to those on the screen, the performer performs a Lug, suitcase in hand, within which a secret is concealed. As Kathryn moves from moment to moment, with an awareness of the photographs appearing on the screen, her suitcase—a container of anticipation—is the central focus that moves her performance towards its ending. The suitcase will be opened, its contents revealed to which the performer in character of the Lug will then interact, the images on the screen becoming secondary to the creative action.

Similarly, the photographs have their own kind of autonomy; an odd one, as they appear without set intent by the artist technician, with the exception of the final series of images. It is the computer program that dictates which images will appear; each time the order is reshuffled, like a pack of cards.

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<sup>4</sup> With the exception of the photo shoot inquiry, all our inquiries occurred with an audience present, either during a conference presentation, or arts presentation. We are seeking to move our research into the realm of shared experience, so that we might converse with the audience, debriefing and sharing with them our own learning and experience following each Performative Inquiry.

An engaging performance to watch, yes, the photographs technically stunning, as was the Lug performance, but there seemed to be a disconnect between, as if neither performer or technologist was fully integrated in each other's performative practice. The technologist seemed encaptured by his programming; the performer committed to the narrative of the suitcase. There is an unwelcomed absence between that is revealed in the work.

The encounter witnessed between performer and technologist, technology and performance seems incomplete rather than fully embodied. Absent is the breath, the intimacy, the vitality witnessed and experienced by the three of us during the photo shoot, when the improvisation between was emergent, intimate, and spontaneous.

Curious, we wrestle with our experience.

K: ...I think the randomness of the shots was what was interesting for me in terms of how I would interface with your work. Right? It created that kind of bristling dynamic that would make me interact with the work. [But] how do we pass through that kind of cold stainless austere sting and stigma of technology and move into the heat of technology? Because of all of our luddite sort of relationship with technology, we started to feel that the pulse and the radiance to feel what it could be to be with the camera and close to the dancer ...even with our sensors and the work that we did with our sensors even though that was still very superficial experimentation, you know, we felt the heat of frustration...but we definitely felt the heat.

B: I think [what matters is] the arriving. The frustration is you know what you're trying to do but you're running into these technical difficulties whether it's the physical constraints, the virtual constraints of the software or constraints of the hardware design and this sort of comes back to what you were talking [about] in terms of the heat of the technology; what's wonderful is when the technology becomes transparent or at least translucent and you're aware of your technology but it's not your enemy anymore. ...The technology is supporting you it's not countering you....You don't feel that it's imposed or artificial.

But what is it within the interplay between performance and technology that moves the performer, artistic technician and audience into the heat of the performative moment? The challenge facing artists working through technology, and artist technicians working through art, is that the manipulation of form, and the technology itself cannot be in and of itself what matters. The danger of technology in the arts is its downdrafts: those technical temptations that make us forget that creativity seeks release in flight, not necessarily in the mechanics of the vehicle that makes flight possible.



### ***Inquiry Four***

#### Improvising Technology

B: [Our first inquiry] we had you wrapped up in the technology. We had the sensors and the source and the sensor you were working with...but where was the [inquiry] where we had the video and you dancing at the same time and it just took off and at the end you turned around and you went something like “Whoa? What was that?” You were absolutely pumped, absolutely stoked.

The heat of technology as an updraft invites us to embody performance, to feel the breath of vitality and intimacy on our necks, through the length of our spines, whether we are the performer or technologist or audience. This vitality when the technologist embraces the artist within, and the performer responds not to technology, but to her experience of art as offered is what we experienced in Inquiry Four.

The photographs taken during the photo shoot whets our technician’s artistic appetite; Bob creates a video medley of photographs in a linear narrative, set to music that is in of itself a creative offering. Meeting to discuss what we will do for our fourth inquiry, Bob announces that he has created a music video for Kathryn to interact with.

K: I remember being a bit surprised by that. Oh, Bob has made a composed piece. And then we responded to that in how we approached the public presentation with this piece. I actually decided to do minimal work against the images because that piece was so beautiful, and all that people needed was for me to be an anchor and a reference to it.

(Interesting, ponders Lynn, what Kathryn sees as “minimal work,” Lynn witnessed— as she had during her experience in the photoshoot—performer and artist technician engaged in a new emergent *pas de deux*, a reciprocal offering between the artistic technician’s music video and performer in interplay with each other, that released the performance into flight. Wings of feather and wax soaring towards the sun’s heat. Collaboration encountering within a creative space of reciprocity and respect.

How did we arrive here, at this moment of performative heat?

L: Can I ask a question.... [Bob] you talk about control—

K: Compulsive—(laughter)

B: I’m a composer. We control time and emotion.

L: Is that the artist who is speaking?

B: Very much. Very much. At least from a compositional ego, I control it. It has to be on my terms. That’s why I find collaborative work so difficult. You have to give up control when you collaborate.

K: I think you collaborated beautifully with us.

B: I was a nervous wreck....when you give up control—“there’s part of my life.”  
...what you don’t see are the images that you throw out.

It is at this point that Bob tells us that he had decided that for our Inquiry Four, he would reclaim control.

B: That’s it. I’m taking over!

And it is this act of resistance, opening the inquiry fully to his own artistry that releases both artists to feel the heat of technology, and to be present to each other’s work, in a way that celebrated rather than competed or simply supported what was being offered to the audience. Bob, through this inquiry, claimed his own space as artist with technology becoming “transparent or at least translucent”; and in doing so, his music video of the images from the photo shoot offered an artist’s invitation to Kathryn who in response created an embodied performance of reciprocity in response—a sonic, imagistic, kinaesthetic dialogue.

The technologist chose to step beyond a pre-defined responsibility to provide the technology so that he too might explore his own artistry and creativity. In this instance, technology becomes embodied within performance, and so takes its place as an equal partner within the performative space created and performed by the artist technician in reciprocal interaction with the performer. The performer responds and a shared creative space of performance and dialogue emerges, just as when the photographer and performer danced their artist selves into presence.

It was as if Bob's creative impulse unfolding in a linear narrative on the screen, touched the heart of Kathryn's own creative commitment to her work, that the performer within her responded in kind, a mutual dance of recognition of each other's artistry. Here, in this performance, we experience no resistance between technology and performance; the artist technician frees himself to create an artistic work, which in turn evokes, inspires, invites the performer into a reciprocal performance that pulled us into the heat of the moment. A performative encounter navigated by two artists in creative action, curiosity and inquiry; a performance of reciprocity and recognition.

Our Performative Inquiry takes us to the "edge of chaos" where complex relationships and patterns evolve within a generative space of life, "an endless dance of co-emergence" (Waldrop, 1992, p. 12). An artist technician and performer encounter each other with a performative and creative integrity that is reciprocal, as technology provides the tools as the means of escape. Through this inquiry, we come to recognize the interplay between technology and performance as a delicate navigation that takes us to the edge of creative action and interaction.

What matters is the integrity of the performative moment—whether embodied in the *physicality* of the performer, or encountered through digital media and technology. *This recognition* and embodies the heart of performativity with fractured narratives—through which emerges renewal, recognition, and revelation. This is especially potent in the space that resonates on the edges of performance when we can interface with collaborators and those who witness and ask "What did you see? What mattered to you?"

Performative Inquiry through embodied poetic narrative improvisation may be preceded by free writes and/or active dialogue with those who engage or witness. An invitation to what Schon (1983) claims as the third part of his "Living Practice" breakdown, "Back-Talk," a dialogue with those who engage in the experience of performance, making-meaning from the fractured narratives and metaphors witnessed and/or co-created. This reflective engagement completes the investigation and remains an essential component to any inquiry. What sediment is revealed? What rises to the surface? What saliency sheds new light? Which words move forward otherwise hidden or silenced in the recesses of our body? "Language thinks us as we think within the language" (Bowers, 2005, p. 86). What happens when the language of technology enters stage left?

## ***A Recap from the Artist Technician's Perspective***

B: We started with the sensors because I'm interested in the use of sensors and how that gives the ability of the performer to interact with the media instead of being completely beholden to the media which is completely opposite where we ended up right? But that is where we started. That was part of the research we had access to the technology and it was an interesting idea. It wasn't particularly successful from a technological point of view. It was obstructive, it was frustrating .... but what those sensors do allow is a sense of exploration, at least, into the performance because you can have a different performance every time.

So then to recreate some aspect of that [exploration] then, we moved to a random [program]—where I had a collection of shots. We don't know the order but....remembering that I had set up the ending, that ending was always going to be the same ... we had a randomness as we get to the ending ....now it's time to start the ending ... because I really liked those shots, the way those shots worked at the ending of the character.

So coming out of that in my usually anal compulsive etc. I said no, I really want —because I love these images and because there is a counterpoint....I'm going to set the flow of these images....at that point I just imposed my will.

## ***What we learned***

*Icarus is greedy, seeking lordship over the skies, he skims the ocean waves, and then soars heavenward. "Wait!" cries Daedalus. But his son slips beyond the horizon into the sun's gravity and imploding in flames, meets his death. Daedalus circles the blue expanse of sky, desolate, calling his son's name. If only ...If only he repeats as his body is wracked with regrets. The universe echoed his despair, in recognition of the potential and the failure of technology and the surmise of even the best designs and the most outstanding intentions. In the centre of his sorrow, Daedalus makes a heart felt commitment to a life long journey exploring the fine art of navigating in the spaces in between. This he will do with the memory and the honor of his son who yearned to feel the heat of the moment*

In reflection, the key insights that emerged through our work were pedagogical: performer and artist technician turned to their creative strengths and in doing so, found the interconnection between. Kathryn and I had a limited view of Bob's responsibilities and contributions as more of a facilitator of our research, whereas he sought to resolve the emerging conflict between his art and our technological requests from the position of an artist. The unsettledness that both artists experienced in their collaboration becomes apparent during our process, and yet, when our reflective interview concludes, Bob and Kathryn are already brainstorming ideas for their next performance, and Lynn, is secretly planning how

she might borrow a video camera and step into their performance... (see Fels & Ricketts, 2012).

### ***Creative collaboration***

Both Bob and Kathryn speak to the ease with which the work they created during this fourth inquiry, as they drew on their experience as artists, working with technology, working with the body, in interaction with the music video.

B: This is the great thing about interdisciplinary work....then all of a sudden, this growth comes out. There's all this fertilization. I remember I put that sequence together really quickly....it's one of those moments where you say, this is really going to work, let me open up Final Cut Pro...it really came together quickly, having worked with the images for so long and having developed—

K: There you go. When you have a history with a process, that rapid kind of firing, construction we need to trust, because the history is the long roots—

B: That's the development, that's the foundation.

K: And I also believe that more and more. I'm not twenty anymore. I believe that all of my life experience, and my craft and my development of who I am as an artist leads up to something that sometimes just sometimes comes with ease or with a rapid firing process and I don't need to question it anymore, I don't need to say well that was too fast, or well that was too easy....it's kind of interesting, that's one of the good things about getting old—

B: What are the bad things?

K: What about trying on a bathing suit? Let's talk about that one!

B: Even I have trouble with that.

[laughter]

During our post-inquiry conversation, we look to what mattered. It became clear that in letting go of our expectations, and trusting in the artist within each one of us, our creative collaboration became an action-site of learning and inquiry.

L: What have we learned?

B: One of the things that I've learned out of this process was that we were very...it's almost like we were too conscious of trying to work together at the beginning with the technology and everything...and then we achieved this sort of

separation of some sort. And out of that came a much stronger combination I think with the images and your character [Lug] out of that.

K: Right.

L: What do you mean by a separation?

B: This whole thing where we had to have the sensors, and we had to have you [Kathryn] controlling specifically and this had to be very tightly interwoven, and the frustration of the technology, the limitations of the technology...okay, let's not go that way, back off...how do we randomness this and you [Kathryn] respond to that randomizing and we're still dealing with things and then ....but at the end of that, it was almost like ..okay let's just pull apart even more and each of us do what we do really well but do that in a manner that is sensitive to....so that in one sense it may seem that you're not really interacting with each other, well it may seem like that but we'd laid down the foundation from the previous work and we were fine with the interaction that we're having—

K: So we are listening to each other.

B. Exactly, and what we were doing wouldn't have been possible without the other. There are times, for instance, when we are training students when it's really necessary, no, you must work with this student in this other discipline really closely and explore what's going on...but there are times when no, okay, now you have got that influence, you should get influences from all kinds of people, now how are you going to use those influences to work? ....That's I think that one of the things I learned, as well as reiterating, man! Am I really controlling! I'm going control those images!

K: And throw out many—

B: And throw out the other ones. Artistic decisions. [laughter]

K: I'm always amazed when I go into a residency<sup>5</sup> where I'm building a performance with a group of people, that time goes and time goes and you kind of feel like you're going forward and back, mainly back more than forward and three quarters of the time goes by and you know you have a performance coming up and suddenly boom, you know it flourishes—

B: There's the moment. The moment.

K: —and I've seen it time and time again so now I don't get panicked—

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<sup>5</sup> Kathryn Ricketts has been an artist-in-residence for a variety of community groups including children, youth at risk, immigrants, senior citizens.

B: Panicked while you're getting closer—

K: —in that whole period where you're bumbling because like I say to people often the metaphor is being in a dark room trying to feel out the furniture where there's no light and Oh that's the couch, oh that's the..... and finally the lights go on

B: Oh there's the dead body. . [laughter.]

L: [groans] Well, there's a stop!

K: It's necessary—

B: Yeah—

K: It's necessary to go to the period where you are kind of like bumping into things and not knowing what is what...and then finally there's something that kind of turns over and I think we've named what that was, it was the photoshoot. And the proximity, and the heat and whatever happened there, and I think that we found out that we all came into our own voice and who we were in that process.

### ***Taking Flight***

In reflecting on our experience following these inquiries, we became aware of how important attention to our engagement with process is, and the critical relationship of honouring the creativity that dwells within us, if we are to offer opportunity for ourselves and others to take flight. In terms of learning how to incorporate technology with performance—how to touch the heat of the sun, without falling to the ocean below— we have learned that creative collaboration, creative integrity, and reciprocity in performative action and interaction are necessary in each performative encounter.

Through the course of our research, we have come to an unexpected query in relation to who or what owns the metaphor, 'the heat of the sun', asking, "Is it the performer in the heat of the moment or is it the heat of technology or is the heat embodied within the tensions between?" In the initial stages of our research we thought it was the 'heat 'of technology that lived in abandonment to the parameters of the form but now we understand it is in the 'event' of that form provoked through both proximity, awareness, and creative impulse embodied simultaneously through performance and technology and these evocative moments are we what we term the heat of the moment.

Together, we shared two key stop moments that arrested us, causing us to say, "Wow! What just happened?!" Something new, generative emerged, within a space of performative interplay, on the edge of chaos in which randomness and structure

engaged with body, memory, impulse, awareness. What evolved was a creative generative collaboration that emerged through resistance and tension to recognize and embrace experience, expertise, curiosity, and deep listening: a collaborative relationship of creative responsibility and reciprocity.

When looking at our collaboration as we investigated digital interfaces and artistic choices in relation to the vitality of improvised performance, we come to understand that technology is both the vessel and mediator. Technology is the fascia that keeps the muscle of our collaborating team to the bone of our inquiry; and through resisting and struggling to find creative voice and presence within the work in relationship to the technology, we have come to understand that it is through the embodiment of performance, drawing upon individual creativity in interaction with each other realized through technology that flight is experienced and recognized.

We learned that in such collaborative creative inquiry, the work and ideas continue to unfold; performative encounters between performer and artist technician as we moved from inquiry to inquiry were generative and revelatory, as we allowed ourselves to trust in our “bumbling in the dark.” We stopped trying so hard to make the technology work the way we had imagined, and, encouraged by Bob who listened to the artist within, turned to our individual creative strengths and in doing so, found the interconnection that sparked the heat of embodied performativity. We encountered issues of creative control, struggled with the limitations of the technology. What we experienced was a creative process that was emergent, reciprocal and respectful.

Our research continues, we are still seeking to untangle the wires, plug in the extension cord, and release the performer into a performance space where technology becomes invisible yet pivotal to the performance. We are attending to spaces where performer and artist technician can continue to meet in the spaces between, to find the pulse of their shared work, and breathe performance into being. Returning to our three critical questions that underpinned our research together:

*How do we allow the heat of immediacy to penetrate the oft-perceived austerity of technology in pedagogical and performative endeavors?*

We come to understand that technology in and of itself cannot bring immediacy nor vitality to any performative encounter; technology facilitates, technology supports, but what is critical is the integrity and honouring of our creative impulse and awareness that is embodied in our performative encounters with each other.

*What tensions exist between technology, performer, artist technician and performance that construct new meaning in embodied performativity?*

Embodied performativity is collaborative and generative, emergent interplay that provides performer and artist technician creative spaces of action and inquiry within which to encounter and reciprocate each other's offering of creativity. Educator Maxine Green's (1978) call for "wide-awakeness" in those who educate, and we would add, those who create, speaks to these tensions, as performer and artist technician learn to engage with each other in relational and ethical awareness.

*How does the performer, entangled in cables, extension cord, and digital interfaces, remain present to the call for response to moments of creative impulses?*

Returning to this question, we can only laugh. As educators and performers, we are always entangled; no matter how securely or confidently we seemingly enter pedagogical encounters, we are, in truth, engaging in exploratory embodied performance, skydancing, a collision of intentions that calls us to attention to what we have yet to learn. It is in moments of faltering flight that we come to new understanding and to attend to these moments with the responsibility of educators who listen to the 'tug on the sleeve'. Entanglements are those performative encounters that offer us the opportunity for greatest learning. Like Daedalus and hapless Icarus, we cannot control the flight of others; we may only be present and mindfully aware; if we are lucky, we may experience a momentary pas-de-deux that will, like the wind-inscribed calligraphy of the jet stream of an airplane, passing overhead, mark our presence in the blue sky.

We have come not to answers, but openings.

In our techno-social dominated environments, our research opens new understanding for educators and artists precariously perched between the gaps exposed by creator and created, body and machine. The gaps are the invitation of the spaces in-between where we encounter one another, and say, "I am here." We hope our research offers some insights to educators and artists as they seek to create a pedagogy of embodied engagement with new technologies that dare to evoke "heat" within education.

*We fall into the temptations of technology, lifted on an updraft, that spirals us closer and closer to the sun. But unlike Icarus, we navigate our way, respecting the wind; our feathers are not scorched, we are held in the embrace of embodied performance, each moment of recognition unfolding as we seek momentary flights of inspiration and revelation.*

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