

The Meaning of the Distance: Internet2 Performance Workshop
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INTRODUCTION

I will talk about a class I taught in Spring 2000 at New York University, using Internet2 as a vehicle for online improvisational performance mediated by high-quality 2-way video. Taking the medium itself for granted, we proposed that students develop narrative structures and content that conceptually explored shared video space itself. Of course, we had no business taking the medium for granted: our project was by definition a sacrificial lamb, a trial run for the University's new Internet2 connection. We undertook the project in full awareness of the probable challenges—optimistically. This presentation documents the expectations we brought to the project, the difficulties we encountered, and the internet performance structures that emerged, some inherent in the medium, some belonging to the not-yet-reliable functioning of the medium.

A Disclaimer: This project happened at the inception of Internet2 connectivity at NYU and does not represent the current state of Internet2 performance capabilities at NYU. Another project launched at NYU at the same time as ours, "The Technophobe and the Madman", was a collaboration between NYU and Rensselaer Polytechnic Institute, and developed over the course of a whole year. Upgraded campus networks, improved video encoding hardware and software, and the network-management experience of an additional year made possible a technically nearly-flawless Internet2-based performance that showed in February of this year online between the two schools.

THE PROJECT

I will focus on:

- 1) A DESCRIPTION OF THE PROJECT A description of Internet2, the proposed project and the participants
- 2) EXPECTATIONS OF TRANSCENDENCE the aura of potential and actual possibilities for reordering boundaries of presence and absence, in working with the heightened realism of high-quality video telecommunication;
- 3) USING A NEW TECHNOLOGY the experience of using a new, little-applied technology for an experimental art project, thereby testing the capacity of the NYU network; further, we hoped to encourage the University to implement the "wired" performance spaces needed for online performance;
- 4) COMMUNICATION, PERFORMANCE, AUDIENCE issues of communication, co-presence, representation, performance and audience arising from the paradigm of being face-to-face over long distance, including the factors that arose when this face-to-face encounter failed.

THE PROPOSAL

In setting out, we proposed:

1. that students develop EXPERIMENTAL NARRATIVE PERFORMANCES
2. that they conceptually explore the medium itself, CONCEPTS ABOUT THE MEDIUM
3. and that the working process take place online between the two student groups. ONLINE COLLABORATION

TRIAL AND ERROR

Because we were working with this medium for the first time, what we set out to do didn't happen as we'd envisioned it. We ended up with a series of INFORMAL PERFORMANCE EXPERIMENTS, rather than a performance we wanted to make public. But we did in fact end up with a WORKSHOP ENVIRONMENT constructed out of an unforeseen SET OF TOOLS, in which participants were able to play out ideas that engaged each other in the moment.

DESCRIPTION OF THE PROJECT: INTERNET2

Internet2 provides BANDWIDTH many orders of magnitude greater than what is currently possible on the existing internet. This initiative is a partnership of government, industry and academia, and its beta-testers are largely academic institutions. Over a year ago at NYU, a call for Internet 2 research proposals drew artists from music, theater, visual and performance arts departments, who were quick to envision proposals using SIMULTANEOUS TWO-WAY VIDEO AND AUDIO. A number of us wanted to set up a wired performance studio, in which artists from outside the university would be invited to do distance video performances in collaboration with students.

Due to departmental constraints, we were required to structure the project as a semester-long class. The class was given at the Interactive Telecommunications Program at NYU. I approached the class from my experience as a video and interactive installation artist. I taught the class with performance artist Ellen Zweig who, as MIT artist-in-residence, led a group of MIT students as our distant performance collaborators.

STUDENT PARTICIPANTS. NYU participants were first-year graduate students of interactive telecommunications and multimedia, with HIGHLY VARIED BACKGROUNDS.

MIT participants were undergraduate students from INTERACTIVE NARRATIVE AND VIDEO ART classes.

Because most students were not performers, we faced issues about ESTABLISHING COMMON GROUND from which to work. (MIT students are the lo-resolution figures in the background.)

[DIAGRAM]

The basic media structure was the SIMULTANEOUS 2-WAY LIVE VIDEO FEED, with cameras at each end sending video over the internet to monitors at the other end, with the aim of achieving THE EXPERIENCE OF IMMEDIATE PRESENCE.

As the work progressed, we developed the following production configuration. NYU students used a video mixer to mix MIT's live feed with our own, and occasionally with prerecorded footage. The layered, mixed image was sent back to MIT. Therefore, we received their "raw" live feed, while they received a mixed image from us, — an inequality of control that later proved problematic.

I had witnessed demonstrations of I2, and was starting with the presumption that the medium would give an UNCANNY SENSE OF LIVE PRESENCE OVER DISTANCE in real time, an almost overly seamless media reality, which we anticipated having to alter, in order to shift away from the banal sense of the video conference. We approached the medium as a given, a stunningly realistic two-way mirror of a stage.

EXPECTATIONS OF TRANSCENDENCE: EARLY PRECEDENTS

Ellen Zweig and I offered readings that included selections on earlier telecommunications inventions, and the popular expectations that accompanied them—hopes of being empowered to cross fundamental boundaries of human existence: presence and absence; solitude and relationship; life and death.

Some examples of these ideas are:

- In "The Victorian Internet", Tom Standage writes of a Prussian woman in 1870, bringing a bowl of sauerkraut to the telegraph office. Told it could not be telegraphed to her son fighting at the French/Prussian front, she replied that, if the telegraph could be used to send young men to the front, why couldn't it send food to the front as well?
- In 1898, Walther Rathenau published a science fiction story, *Die Resurrection Co.*, considering a futuristic cemetery in which telephones had been installed in the graves, for communication with the dead.
- Thomas Edison theorized that his audio engineering work would yield sound frequencies that could channel the communications of the dead as well, and reported on his progress to a waiting public.
- We also looked at some of the history of artists who have taken on new technologies to elucidate the essential ways they alter human experience, Marinetti, in his embodiment of the speed and violence of modern machines and Artaud in his radio performances.

TELECOMMUNICATIONS: CONTEMPORARY PRECEDENTS

- Artists like Cathy Weis have done interesting work in dance and performance art with low-end applications like CUSeeMe on the existing internet, emphasizing accessibility so as to connect with areas of the world that are not highly wired.
- Performance art projects using two-way high-quality video have been practiced for two decades by Sherry Rabinowitz and Kit Galloway, with their *Electronic Cafe International*, "the planet's oldest multimedia cyber venue". Such projects use a range of connections, from satellite to video and audiophones, fax and e-mail.
- Gertrude Stein Repertory is engaged in the long-range establishment of a global collaborative theater, with corporate technical support.
- to mention a few.

Our project referenced many such previous efforts. The presence of Internet2 on campuses promises a new kind of accessibility to high-speed connections.

USING A NEW TECHNOLOGY: NETWORK ISSUES

Like the woman hoping to telegraph sauerkraut, our group too brought great expectations to this project. Starting out with the notion of Internet2 as a "video window", we were soon to find out that the medium was still buggy. While the U.S. and Canada are now criss-crossed by an Internet2 hi-bandwidth backbone, local campus networks have yet to catch up. Projects like ours were in fact TEST CASES for finding out the bottlenecks encountered in regular usage. I soon found myself in weekly contact with campus networking gurus at both NYU and MIT, and at the Internet2 Consortium. Apparently the seamless demonstrations I had seen at the Internet2 Conference had been carefully controlled by teams of network engineers monitoring the local

and interstate network during the demo. We could not hope to marshall this kind of global technical support as we logged on each week.

And so, as we progressed in the semester, our work was shaped by TECHNICAL DIFFICULTIES . We were testing two different video encoding systems, each of which proved temperamental. The picture quality was in fact often good, but sometimes the connection choked at regular intervals. Audio quality was almost always poor, and sometimes audio dropped out altogether. The notion of a video window was sometimes replaced by the old-fashioned image of shouting over a primitive long-distance line, trying to make oneself understood.

COMMUNICATIONS, PERFORMANCE, AUDIENCE:
ARE YOU LISTENING?

Frustration developed: students frequently felt those at the other end weren't paying attention. This phenomenon was only partly explained by our technical difficulties. In fact, the medium often was working WELL ENOUGH— well enough, that is, to support assumptions that a message intended was a message received. Our video connection was, in and of itself, somewhat like mutual surveillance. The realism of the screen belied the actual challenge of communication, and of the subtle level of connection at which improvisation might take place. The video window was actually a kind of filter: only certain behaviors served to bring a gesture right to the surface of the screen, so that it could be sent over the internet, received and responded to. Video production issues were crucial, yet the vicissitudes of the network kept production at a fast-and-dirty, on the fly level.

Of the performance experiments that materialized, it became clear when COLLABORATION/COMMUNICATION were and were not working:

- 1) THE PUPPET PROBLEM Unsuccessful, uninteresting contacts usually resulted from the "puppet problem", with students on one end directing those on the other end to "do something", and one group feeling controlled by the other.
- 2) IMPROVISATION but when a student/director established a set of conditions, an image and a behavior, an improvisational or emergent exchange happened, where one or more people on the other end were invited to enter those conditions and behave responsively, with unforeseen results.

In one piece a student read a narrative poem about himself, race and "whiteness", turning his "white" back on the camera. In giving those at the other end a motivation to enter the KEYED-OUT SPACE of his back, he allowed them to respond spontaneously to the painful emotion of the poem, with one woman inserting her own back into this space, on which others laid their hands. The whole created a kind of COMPOSITE BODY for the speaker of the poem, actively comprised of performers on both ends.

Participants returned frequently to the phenomenon of "Merging Faces", the experience of mapping one's identity onto that of another, estrangement from one's own image, OCCUPYING THE IMAGE OF ANOTHER. While this exercise covered old ground in terms of video experimentation, it pointed to a basic tool of this work: RE-ORDERING BOUNDARIES OF IDENTITY AND SPACE from two distant locations into a third, dislocated space.

THE THIRD SPACE

Student efforts were frequently obstructed by the fact that we *seemed* to be face-to-face with our distant partners, to be naturally SHARING A VISUAL SPACE. In reality, achieving a face-to-face experience demanded a SUPPRESSION OF NATURAL PHYSICAL EXPERIENCE, blocking out one's realtime physical context. Instead, students had to simulate themselves, their movements and interactions, to negotiate the real-time displacement of the body onto the screen, where it was possible to "play" with another displaced body. This DANCE SCENE shows the process of overcoming natural physical experience in order to share video space.

NOT ACCEPTING THE DISTANCE

Students struggled with disembodiment. Some students spent the entire semester asking "WHY PERFORM THROUGH THIS MEDIUM, WHEN PRESENCE IS SO POWERFUL?". One NYU student created a video narrative of walking through a door in New York and instantaneously arriving in Boston. Meanwhile he secretly travelled to Boston to perform this surprise appearance during the class session where his video was being played online. This student was working with a basic resistance to virtualizing a connection: Why pretend there is intimacy in one's own physical absence?

Another similar play of video illusion happened when MIT students took NYU students on a walk through campus buildings with a seemingly wireless camera. This project pointed to the difference between LIVE VIDEO TRANSMISSION and PRE-RECORDED VIDEO BEING INTERACTED WITH 'LIVE'. In this layering of illusion, where did liveness occur? The live connection of the two groups happened at the moment when the illusionism of the medium was revealed.

THE MEANING OF THE DISTANCE

The issue of MOTIVATION FOR THE CONNECTION came up throughout our work: each end had to really *need* the connection. We agreed that this kind of project would work best with a distant group who, by definition represented some kind of ENVIRONMENTAL or SITUATIONAL DIFFERENCE. In the absence of this kind of difference, our two student groups had to focus more explicitly on telling the story of BOTH OUR DISTANCE AND OUR PRESENCE as we worked in this Nowhere video space, which MIGHT be connecting us with next room or with the other side of the world, for all we knew.

AUDIENCE: Experience, Process, Product

The question of audience came up and remained unresolved.

- Was the audience subsumed in the mutual witnessing of the performers, as with the notion of "PRIVATE PERFORMANCE"?
- were the audience those THIRD-PARTY WITNESSES OF THE VIDEO, either online or on a monitor removed from the production studio?
- were the audience members those physically present in the studio, WITNESSING THE LIVE PRODUCTION of two-way video?

TRAVEL AND MEMORY

One collaboration played on the phenomenon of the shared video space and the local, real-time truth of this HIGHLY-PRODUCED REALITY. These collaborators contrived an online romance and a trip in which they would meet in places they each remembered, showing them to each other through photographs. They made a commitment to enter into the MEDIA FRAGMENTS that each offered the other, and to move through this fragmented world together, travelling to Singapore, to Minnesota, to a nightclub. At each significant moment of their journey, they took POLAROIDS as mementos and showed them to each other. These travel photos depicted video studios full of wires, glaring video screens, camera operators and other students, the present physical space that each of them inhabited.

CONCLUSION

We ended this project at the beginning: with A SET OF QUESTIONS bearing more exploration and with ideas about VIABLE ONLINE PERFORMANCE STRUCTURES. For example, stretching the project over 6 months, we would recommend that each group spend the first half working offline to experiment with shared video space and develop ideas, before venturing into live collaboration.

Despite difficulties of all kinds, most participants ended the project still compelled by the idea of working with the paradoxes of this strange shared media space, and looking for the next opportunity to do it.