TECHKNOWLEDGIES

NEW IMAGINARIES IN THE HUMANITIES, ARTS, AND TECHNOSCIENCES

EDITED BY

MARY VALENTIS **Ph.D.**

WITH

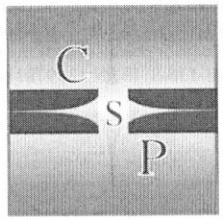
TARA P. MONASTERO

AND PAULA YABLONSKY

TechKnowledgies:
New Imaginaries in the Humanities, Arts, and TechnoSciences

Edited by

Mary Valentis
with Tara P. Monastero and Paula Yablonsky



CAMBRIDGE SCHOLARS PUBLISHING

TechKnowledgies: New Imaginaries in the Humanities, Arts, and TechnoSciences,
edited by Mary Valentis with Tara P. Monastero and Paula Yablonsky

This book first published 2007 by

Cambridge Scholars Publishing

15 Angerton Gardens, Newcastle, NE5 2JA, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN 1-84718-136-8; ISBN 13: 9781847181367

Mary dedicates this book to:
John, always; and,
Joan Wick-Pelletier.

Tara dedicates this book to:
my friend and mentor, Mary; and, for always, my grandmother.

Paula dedicates this book to:
Mark Gibbons and Erica Yablonsky-Gibbons with love.

Journal, 1981), 32.
2. Martin Tucker. *Sam Shepard* (New York: Continuum, 1992), 37. Tucker's conflation of the *process* of entropy with the *state* of chaos is telling.
3. Christopher Bigsby. "Born injured: the theatre of Sam Shepard." *Cambridge Companion to Sam Shepard* (New York: Cambridge UP, 2002), 10.
4. Sam Shepard. "4-H Club," in *The Unseen Hand and other plays*. New York: Urizen, 1972), 203. Hereafter cited (*4-H*, pp.)
5. This last possibility may be supported within the context of Shepard's other early plays, which frequently involve characters playing the imaginative roles of a fisher, a swimmer, a dancer, etc. This potential "play-within-a-play" seems more ambiguous than the others, however, leading to plural interpretive possibilities unavailable to the other works.
6. Dennis Carroll makes an analogous point in his essay, "Potential Performance Texts for *The Rock Garden* and *4-H Club*." Charting the transformation of water in Joe's mind from potable substance to an imagined cleaning jet, Carroll notes this transformation as "the first of a significant series of images of proliferation turning to dispersal which are introduced through dialogue in the image-sound system of the play" (38). Carroll's study also emphasizes the linguistic, imagistic violence at work in the play.

THE VIRTUAL ARTAUD: COMPUTER VIRUS AS PERFORMANCE ART

JASON FARMAN

The computer virus is often termed as a malicious threat to personal privacy, security, and system integrity by companies such as McAfee and Symantec; yet, how would we regard such a virus if it were scripted as a performance-art piece? In June 2001, two performance art groups collaborated to script a computer virus-as-performance-art and launched it at the 49th Venice Biennale. The performance-virus, named *Biennale.py*, was launched from the Slovenian Pavilion on the opening day of the exhibition. The groups responsible, WWW.0100101110101101.ORG (roughly translated as the binary code for the letter "K") and epidemiC,[1] are known for their performance art pieces that often push the boundaries of legality. They regard their virus as a means to disrupt the static and authoritarian way the term "virus" is traditionally signified, and to locate their performance within the cultural and social reception of spreading biological infections, globalization, and internet surveillance. As Gabriella Giannachi explains, the group's aim was to "destabilize the Web as a 'safe' environment and expose capitalistic and global control methods operating in both the real and the virtual."[2] My analysis of this performance piece seeks to posit a relationship between the simultaneous emergence of HIV/AIDS and computer viruses, as well as the codes of signification in an era of fluid global borders, increased surveillance, and the "posthuman" body.

The exhibition, curated by Aurora Fond, was part of the Slovenian Republic's Absolute One project. This project sent out a call to artists to create a piece that commented on globalization and alternative economic practices in the networked world. It was "conceived in the belief of absence of movement at a molecular level and in the conviction that entropy, in its concept of zero, is equal to zero," and thus, in binary code, absolute one is the antithesis of zero and entropy, displaying perpetual interactive activity As spectators entered the Pavilion, they encountered a screen displaying the code of the *Biennale.py*. Several computers were also present, some were infected by the virus and others displayed—in real time—the global effects of the virus. As the exhibition continued, approximately 2,000 t-shirts, with the virus's code on them, were

distributed to the attendees. As the press release noted at the Pavilion: "During the opening days of the Biennale thousands of t-shirts carrying the source code of the program will show up. Paradoxically, such as in biological viruses, 'Biennale.py' will spread not only through machines but also through men." Thus, the performance takes place on several levels: in the Slovenian Pavilion on the projected screens and computer screens, on the bodies of the attendees who displayed the code on their clothing, and world-wide, as the virus spread to individual and corporate computer systems.

Artaud's Virtual Plague

At the turn of the century, Antonin Artaud in his seminal book, *The Theater and its Double* theorized that the theater was like the plague (or viral epidemic) in spectacle and effect on both an individual body and in the social reception of it. The plague and theater both appear as an "absolute action of a spectacle"[3] that incite a "battle of symbols." The plague "takes images that are dormant...and suddenly extends them into the most extreme gestures" while the theater "also takes gestures and pushes them as far as they will go: like the plague it reforges the chain between what is and what is not, between virtuality of the possible and what already exists in materialized nature."[4] Ultimately, the theater, like the plague, "releases conflicts, disengages powers, [and] liberates possibilities."[5]

The motive behind the launch of the Biennale virus, like Artaud's notions of the plague, seeks to engage in the battle of symbols, the signification of both the ontology of the virus, and the status of the body in the digital age. A scripting of the virus *as a performance* allows it to enter into the discourses of bodies and viruses and the ways such notions are signified. As a "performance," the virus begs the question of who constitutes the audience for such a piece. As mentioned, the various audiences were the attendees of the Venice Biennale and simultaneously experienced and viewed by computer users around the world. However, before the performance virus was even launched from the Slovenian Pavilion, the two performance groups informed the major anti-virus companies of their intent to spread the virus, with specifications on its content and removal. After the launch of the performance virus, the major anti-virus companies begin tracking the virus globally, representing its worldwide spread on their virus maps. Eva Mattes, 0100101110101101.ORG's spokesperson, says, "As soon as the virus is detected it officially turns wanted, every PC becomes a checkpoint that the virus needs to cross." She goes on to describe its progress:

> Once you set a virus free you loose control over it, you decide on when and where the performance begins, but you'll never know when and where it'll lead. It'll spread out of control, it'll make a round-the-world trip over two minutes, it'll go where you'll never go over your entire life, chased by anti-virus cops trying to regain control over it. In this very moment it's wandering around at the speed of byte. It's an art form that finds you, you don't have to go to museums to see it, the work itself will reach you inside your house.[6]

Yet there is a significant difference between the database surveillance of the anti-virus companies and the surveillance taking place via closed-circuit television cameras. The Gaze shifts from visual-based technologies (with their ability to auto-focus) to information-based technologies that do not rely on focus to instruct their Gaze. Case discusses this shift:

> The Gaze, as concept and as camera, operates by focus....Theater studies have already dealt critically with, for example, the role of perspective in painted flats, the organizational sight lines in respect to the king's Gaze, and, in Joseph Roach's study, the micrographic foundation of imperialist spectacle....The computer screen, however, is not, by nature, composed by focus. The screen has no camera—no eye. While the user-friendly aim of software replicates the function of the camera, other functions instate another form of organization.[7]

The surveillance performed through the *Biennale.py* virus is that of information, not of visualization. The consequences of this are far reaching and include a shift in the way surveillance spaces are formed and situated. The closed-circuit video camera that surveys a business or the streets of Manhattan creates a relational space of surveillance through its frame and field of vision. Those who wander within the Gaze of this camera are subject to its Gaze. These cameras, though often difficult to spot, are typically out in the open and can be located and even mapped (as New York City's Surveillance Camera Players do). In the database surveillance of the anti-virus companies of the performance virus, there is a shift in the perception of surveillance and its limiting space. Here, the surveillance space extends across networks, across corporate and private machines, and is simultaneously present as a beneficent program, hidden as a threat to personal privacy (through various adware and malware programs that track user movements online without ever being intentionally installed or detected by the user). Thus, the subject of this surveillance has changed from a material body to an information subject.

In its very name and the way it is perceived in the cultural imaginary, the computer virus is often read as related to the ways the material body is infected. In Andrew Ross's detailed and convincing work on computer viruses and hacker subculture, he posits,

> In line with the new imperative for everything from "vaccinated" workstations to "sterilized" networks, it [the desire for computer security] has created a brand new market of viral vaccine vendors who will sell you the virus (a one-time only

immunization shot) along with its antidote—with names like Flu Shot +, ViruSafe, Vaccinate,…[and] Antidote.[8]

From the outset, the modes of discourse surrounding the computer virus have imbued the computer system with bodily significance. The term "computer virus" was first employed in academic writing by Fred Cohen in his 1984 article, "Experiments with Computer Viruses," in which he credits Leonard Adleman as initially coining the term. However, earlier uses of the term can be traced back to science fiction, namely David Gerrold's, *When H.A.R.L.I.E. was One,* in which there is a computer program named VIRUS which operates similarly to modern-day computer viruses. In that 1975 story, this computer program was counteracted by another computer program aptly named ANTIBODY. The first actual computer viruses would not appear on the scene until 1981 with the spread of the Elk Cloner virus on Apple II systems.

In June of this same year, 1981, the Center for Disease Control first publishes its reports of the AIDS virus in the United States. With the rise and spread of HIV/AIDS and the simultaneous emergence of computer viruses, the two categories of epidemics have had many similarities in the way they are perceived in the cultural imaginary. I do not want in any way to argue that the seriousness of AIDS, a life-threatening pandemic that is causing much suffering in the world today, is comparable to a computer virus. I want to carefully distinguish between the corporeality of AIDS and viruses on computer systems. My primary concern is the ways in which AIDS is made to signify within the digital world of the posthuman, which many have theorized the body as a system of codes and genetic data that is altered significantly through disease. AIDS, as mirrored in the discourse of computer viruses, incites a battle of symbols as seen in the performance art virus.

Instillation Transmission: *The Lovers*

This "battle of symbols," which Artaud theorized, is seen not only in the *Biennale.py* virus, but also in another installation that was exhibited along side *Biennale.py* when the virus was exhibited at Brown University. In the fall of 2004, the Watson Institute for International Studies commissioned www.digitalcraft.org to present their successful exhibition of computer-virus art, which included 0100101110101101.ORG and epidemiC's *Biennale* virus as well as another exhibition: Sneha Solanki's *The Lovers. The Lovers* is a piece in which two columns support cathode ray tube (CRT) monitors atop them. The computers are connected via a wire that comes out of each column (or, in the UK exhibit of The Lovers, the monitors sat directly on top of the CPUs). The screens are angled to slightly face each other. The first computer displays a

portion Robert Burns' poem "My Love is like a Red, Red Rose":

So deep in love am I
And I will love thee still, my Dear
Till a' the seas gang dry, my Dear
And the rocks melt wi' the sun!
O I will love thee still, my Dear
While the sands o' life shall run

The next computer displays a portion of Eliza Acton's "Where, Oh! Where, On His Restless Wing":

Where, oh! where, on his restless wing,
Hath the spirit of Love been wandering?—
I HAVE been where passionate hearts beat high
Beneath the glow of an Eastern heav'n,
And break with the wild intensity

Within moments, the first computer displays the effects of the computer virus on its text:

So de©◆½ in love am I
And I will love thee sti‖ my Dear
Till a' the seas gang dry, my Dear
And the rocks melt □>□<<i□□□□□□
□? I will love thee still, my Dear
While the sands o' life shall run

The virus, as it is infecting the source computer, spreads via the network wires to the second computer. The second poem begins to show the ill effects of the virus on its text as well. Soon, both poems become distorted beyond legibility. As Solanki says, "The interface text became an illegible poetic mutation of itself."[9]

While both pieces deal with the destructive qualities of viruses, they are in and of themselves considered "valuable" or "worthwhile" works of art. This apparent contradiction brings to light the questions of the values of art versus the value of the commodity of the computer. As epidemiC says of their work, "The source code is a product of the human mind, as are music, poems and paintings. The virus is a useless but critical handcraft, similar to classical art."[10] The use of computers in each of these pieces troubles the term "value" as the term is often equated with "use value" or "exchange value"— is the antithesis of both of the pieces. The performance-art pieces do not fall under the category of

"use value" but instead destroy commodities such as the computer and software, which are typically utilitarian in function.

Despite its antithetical stance towards the notions of "value," the *biennale.py* virus can be bought and sold. The performance groups made a limited number of CDs containing the source code for the virus and has sold several. As of this writing, three copies of the "infected CD-ROM" have been sold, each going for 1,500 euros. The CD-ROMs are sold under the auspices of the "fleeting" nature of the virus and the limited number of CD-ROMs produced (there are a total of 10). Speaking of the sale of the virus, Mattes and 0100101110101101.ORG note, "The virus, a dangerous and fleeting entity 'par excellence,' is for sale to especially adventurous collectors and art dealers....To buy a computer virus is probably one of the most exciting investments one could make today."[11]

Transmission and Signification: Performing the Global Virus

The *Biennale.py* performance-art virus and *The Lovers* are performances of the ways we signify the virus, both on the computer and in the body. As Paula Treichler astutely notes in her seminal work on AIDS and signification, "The AIDS epidemic—with its genuine potential for global devastation—is simultaneously an epidemic of a transmissible lethal disease and an epidemic of meanings or signification."[12]

In part, such linguistic constructions of AIDS seek to establish a specific history of the syndrome. Although my comparison of the emergence of the computer virus and AIDS begins its analysis in 1981, this is only one of many narratives around the origins of the viruses. David Román argues in his book, *Acts of Intervention: Performance, Gay Culture, and AIDS,* that attempting to create an "official history" of AIDS will inevitably obscure other histories that have gone undocumented. These official histories, be it the narratives of the biomedical institutions or the mainstream news media, have the danger of becoming "totalizing narratives" and a "genealogy...[which] overdetermines the arrival of AIDS and obscures the process(es) of AIDS."[13] Instead of there being a singular narrative and history of AIDS, there is a multiplicity of histories.

Several of these hegemonic descriptions of both computer viruses and physical viruses such as HIV/AIDS have led theorists to analyze the viruses within the context of globalization and the inherent desire to locate a "foreign source" for the epidemic, the spread of HIV/AIDS has been read through the lens of globalization from its onset. As Virginia van der Vliet writes in her book, *The Politics of AIDS*,

> HIV has gone on the rampage in a world peculiarly suited to its special needs. The late twentieth century is, as was the fourteenth century in Europe, a time of increasing human interaction, of permeable borders and extensive trade and travel....The HI virus...appears to have hitched rides in its human hosts as they jetted between continents, walked from village to village, or rattled back and forth in trucks between city and coast all over the Third World. Nowhere is the "global village" metaphor more chillingly illustrated than in the speed with which AIDS encircled the planet.[14]

Just as the *Biennale.py* virus was able to "circle the planet in two minutes," HIV/AIDS is able to spread globally at a pace more rapid than any other epidemic in previous times due to the modern condition of compacted social space and diminished regional borders. The promulgation of these "official histories" has created a specific cultural imaginary around AIDS, at the foundation of which is the condition of globalization and its inherent conflicts with the desire to locate a "foreign source" for the epidemic.

Within this cultural imaginary surrounding both AIDS and computer viruses is the impulse to locate a specific *foreign* source for the infection. It is here that borders remain in tact and starkly present. With AIDS, as Susan Sontag notes in her book, *AIDS and its Metaphors*, the infection is read as foreign in several ways. First of all, the infection itself is read as an invading enemy, "an infectious agent that comes from the outside."[15] Secondly, those infected with the disease are typically considered as Other within a moralistic framework. As Sontag notes:

> Getting the disease through a sexual practice thought to be more willful, therefore deserves more blame. Addicts who get the illness by sharing contaminated needles are seen as committing (or completing) a kind of inadvertent suicide. Promiscuous homosexual men practicing their vehement sexual customs under the illusory conviction, fostered by medical ideology with its cure-all antibiotics, of the relative innocuousness of all sexually transmitted diseases, could be viewed as dedicated hedonists—though it's now clear that their behavior was no less suicidal. Those like hemophiliacs and blood-transfusion recipients, who cannot by any stretch of the blaming faculty be considered responsible for their illness, may be as ruthlessly ostracized by frightened people, and potentially represent a greater threat because, unlike the already stigmatized, they are not easy to identify.[16]

This "risk group," as it is commonly termed—presumably neutral, though falsely so—places the epidemic in the realm of the Other in hegemonic discourses regarding the epidemic.

Similarly, the origin myths of the epidemic function to position AIDS as a disease of the Other. AIDS, as with other plagues and epidemics, comes "from somewhere else."[17] As Sontag notes, the names given to syphilis as it spread through Europe in the fifteenth century always located it as a foreign disease invading the local citizenry:

"It was 'French Pox' to the English, *morbus Germanicus* to the Parisians, the Naples sickness to the Florentines, the Chinese disease to the Japanese."[18] Similarly, in many Western countries, AIDS is thought to have its origins in Africa. Sontag writes,

> Africans who detect racist stereotypes in much of the speculation about the geographical origin of AIDS are not wrong....The subliminal connection made to notion about a primitive past and the many hypotheses that have been fielded about possible transmission from animals...cannot help but activate a familiar set of stereotypes about animality, sexual license, and blacks.[19]

In certain African countries, AIDS is also read as foreign, hypothesized as a virus created in a CIA laboratory in Maryland and sent to Africa.[20]

These "totalizing narratives" which disseminate particular origins and locales for the viruses directly connect to the ideologies of such modes of signification. Such signification places HIV/AIDS in a similar imaginary as that of the computer virus as seen in the critical performance art of WWW.0100101110101101.ORG and epidemiC and their biennale virus. The biennale virus prompts various questions concerning the source and host file of the virus. As a computer user sees the virus inhabit his computer system, the modes of system security and anti-virus technology are immediately questioned and/or implemented. Borders are immediately inscribed in what was, moments earlier, considered a borderless world of the internet. For example, the term "firewall" used in anti-virus technology is a metaphor that incites ideas of renewed borders in a borderless system. It demarcates the self from the other, protecting the integrity of the system from an infection from an outside, malicious virus. The contained system is seen as safe as long as it is contained and protected through the borders set up by the "firewall." In an enclosed and protected system, the only means of being infected by a virus is by willful engagement with a file or code from an outside source.

Thus, the performance-art virus is a performance in two ways. First, the performance is not primarily the launching of the virus, but, by launching the virus, the performance art group provokes the responses of surveillance and fear. The performance is, in a sense, the audience who reveals its conservative, fearful investment. Secondly, by exposing the audiences' investment in its relationships to the virus, the performance-art virus reveals the status of the embodied audience it seeks out as a body of codes and information.

The Moral Law and The Copyright Law

Viruses are thus described in terms that compare them to sexually transmitted diseases, or, as in the cultural imaginary of the AIDS virus, through

willful contact with a contaminated source. Ross writes, "The underlying moral imperative being this: You can't trust your best friend's software any more than you can trust his or her bodily fluids—safe software or no software at all!" He goes on to quote Dennis Miller's remark on an episode of *Saturday Night Live*: "Remember, when you connect with another computer, you're connecting to every computer that computer has ever connected to."[21] Such language mirrors the current push for abstinence programs in the United States. This is also particularly applicable in our current age of peer-to-peer networking in which the process of sharing files has taken on a moral stigma; and thus, viruses obtained through such means are read as a just effect for culpable behavior. Thus, the "moral law" that dictates sexual behavior is mirrored in the copyright law and the enforcement of these laws in networked communities by such organizations as the RIAA. The comparison is clearly seen in a recent Motion Picture Association of America commercial that says, "You steal a candy bar from the store, or you download a movie off the internet. I mean, that's wrong."

In contrast, a June 2005 article by the *Agence France Presse*, "Taiwan to make Cheap AIDS drugs available in health scheme," notes that Taiwan is attempting to produce "copy-cat" drugs based on those offered in the United States and offer them for minimal cost to their population (approximately 30 baht per visit, or the equivalent of about .75 cents). In Taiwan, over a million people have been diagnosed with HIV and half a million have already died. The country's vow last October to produce inexpensive version of these drugs was met with "an uproar by US corporations which argue the drugs break patents and deprive the firms of money needed to research new anti-AIDS drugs." Again, this example clearly demonstrates the ways in which copyright law extends into the discourses of AIDS and the realm of pharmaceutical research and development.

It is commonly thought that with the right anti-virus software and the proper firewalls installed, the individual's computer system will be safe from outside threats of viral infection. The computer virus, it is often thought, belongs to an unprotected system or perhaps only affecting Windows based programs (thus Mac users are immune). Similarly, as Charles E. Rosenberg notes in his article, "The Definition and Control of Disease," prior to the AIDS epidemic, American culture thought itself immune to infectious disease through medical breakthroughs and intervention. He says, "By the end of the 1970s, most Americans had come to regard themselves as no longer at risk; infectious disease was almost by definition amenable to medical intervention. Not since the last severe polio threats more than a quarter century ago has the United States experienced the collective fear of epidemic disease."[22] The idea that viruses originate from the Other and affect the Other remain strongly in place in several discourses about HIV/AIDS and the computer virus. The Italian groups

who spread the Biennale virus as a performance did so within a milieu that locates the virus as foreign and elsewhere while reading the self and the system as safe as long as the proper borders and protection are in place. . The performance virus sought to destabilize the signification of the virus and the way borders are simultaneously erased and reinscribed. As Artaud writes, "If the essential theater is like the plague, it is not because it is contagious, but because like the plague it is the revelation, the bringing forth, the exteriorization of a depth of latent cruelty by means of which all the perverse possibilities of the mind, whether of an individual or a people, are localized."[23]

Although the outcome and consequence of the HIV/AIDS epidemic are significantly different and more threatening than any computer virus may be, the ways the two "epidemics" are signified in the cultural imaginary, as argued here, are notably similar. The simultaneous emergence of the viruses and the multiplicity of their accompanying significations allow for a comparison of the infection of the physical body to the infection of the computer system. In the posthuman age, in which the body is read as a system of information, the link between the information of the body being infected (i.e. the alteration of DNA) and the coded information on the computer system being infected becomes profoundly similar. Thus, by performing these similarities through a virus-as-performance-art, the performance artists at the Venetian Biennale allow their audience to enter into the discourse around the status of the cultural imaginary that surrounds both the computer virus and the AIDS epidemic.

References

Artaud, Antonin. 1996. *The Theater and its Double*. New York: Grove Press.

Case, Sue-Ellen. 1996. *The Domain Matrix: Performing Lesbian at the End of Print Culture*. Bloomington: Indiana University Press.

Giannachi, Gabriela. 2004. *Virtual Theatres: An Introduction*. New York: Routledge Press.

Jana, Reena, 27 June 2001. "Want to See Some Really Sick Art?"

Mack, Arien, ed. 1991. *In the Time of Plague: The Historical and Social Consequences of Lethal Epidemic Disease*. New York: NYU Press.

Mattes, Eva. 24 September 2005. "Contagious Paranoia: 0100101110101101.ORG spreads a new computer virus." http://www.0100101110101101.org/home/biennale_py/story.html.

Román, David. 1998. *Acts of Intervention: Performance, Gay Culture, and AIDS*. Bloomington: Indiana University Press.

Ross, Andrew. 1990. "Hacking Away at the Counterculture." *Postmodern Culture* 1(1).

Sontag, Susan. 1998. *AIDS and its Metaphors*. New York: Farrar, Straus, and Giroux.

Treichler, Paula A. 1996. "AIDS, Homophobia, and Biomedical Discourse: An Epidemic of Signification." *AIDS: Cultural Analysis Cultural Activism*. Cambridge, Mass.: The MIT Press.

Van der Vliet, Virginia. 1996. *The Politics of AIDS*. London: Bowerdean Publishing.