

Internet Hybrids and the New Aesthetic of Worldwide Interactive Events

This essay discusses interactive art events realized on the Internet in conjunction with other electronic media, such as television, radio, telephones, and telerobotics. The essay includes references to material that can be immediately accessed on the Internet. The reader is invited to read by the glow of the CRT, letting digital strokes carry him or her from one country to another.

From the point of view of the artist, one must ask: what is the Internet? Is it a virtual catalogue, or the most perfect gallery for electronic images? For some, it may be an interactive medium, yet others integrate it in hybrid contexts. Its ordinary use might suggest that it is more like the telephone and postal systems, which basically enable exchange of messages between distant interactors. The Internet does incorporate aspects of television and radio, by making it possible to broadcast video, audio, and text messages to small and large groups alike. Perhaps the most exciting feature of the Internet is that it is simultaneously all of the above and more. The Internet can be approached from many angles, and it continues to grow and transform itself as you read your email today. Parallel to the ordinary exchange of messages that takes place daily on this network of networks, some artists are expanding and hybridizing the Internet with other spaces, media, systems, and processes, exploring new zones of experimentation.

Internet hybrid events expose at once the decrepitude of unidirectional and highly centralized forms of information distribution, such as television, and contribute to expanding communicative possibilities that are absolutely unique to this immaterial, telematic form of artistic action. Hybrids also allow artists to go beyond creation of online pieces that conform to the emerging design and conceptual standards of the Internet, therefore evading what very often could seem repetitive solutions to design exercises. Away from the art market, a new international generation of media artists, often working in collaboration, exhibits the same utopian fury and radical innovation that once characterized the modern avant-garde groups. If we will no longer call this new media art avant-garde, we must still acknowledge the critical and innovative scope of its creators' enterprise within and beyond the Internet, despite (or because) of the fact that they don't fit into any of the "-isms" that serve as chapter heads to art history survey books (<http://www.uky.edu/FineArts/Art/kac/Telecom.Paper.Siggraph.html>).

One such group exploring electronic media hybrids is Ponton European Media Art Lab (<http://www.ponton.uni-hannover.de/index.us.html>), founded in 1986 and based in Hannover, Germany since 1994. Composed of 15 members but able to mobilize twice as many people depending on the project, this independent group includes artists and technicians from Germany, Italy, France, Austria, Canada, and the US. Their most ambitious project to date was the interactive television event *Piazza Virtuale* (Virtual Square), presented for 100 days as part of the quadrennial international art exhibition Documenta IX, in Kassel, Germany, in 1993. This event was produced by Van Gogh TV, Ponton's television production unit. In 1995, Karel Dudesek, one of Ponton's founding members, left the group and continued Van Gogh TV as a separate project.

The *Piazza Virtuale* project created an unprecedented communication hybrid of live television (based on two satellite feeds) and four lines for each of the following: ISDN, telephone voice, modem, touch-tone phone, videophone, and fax. There was no unidirectional transmission of programs as in ordinary television. With no pre-set rules or modera-

tors, up to 20 viewers called, logged on, or dialed up simultaneously, and started to interact with one another in the public space of television, occasionally controlling remote video cameras on a track in the studio's ceiling. All of the incoming activity from several countries was re-broadcast live from Ponton's Van Gogh TV site in Kassel to all of Europe and occasionally to Japan and North America. A pamphlet distributed in Kassel about the project announced that the *Piazza Virtuale* was "an image-symbolic language of interaction, of taking part – not the distanced naturalistic copy of the world, the aesthetic of the 19th century, which still often is created in electronic worlds of images".

This kind of work is deeply rooted in the idea that art has a social responsibility. The artists act on it directly, in the domains of mediascape and reality. Among other implications, this project took away the monologic voice of television to convert it into another form of public space for interaction, analogous to the Internet. Corporate-hyped ideas of "video-on-demand" or "interactive TV" are, even before implementation, already surpassed by the worldwide interactivity enabled by the Internet. In a statement posted in August 1993, in the newsgroup comp.multimedia, Ponton's interface designer Ole Lütjens stated: "The *Piazza Virtuale* is a step forward for the media art of the future, in which interactive television and international networks can be an important collective form of expression" (<http://www.ntt.jp/people/takada/ml/archive/infotalk/199308/19930830.html>).

The emphasis here is on the word "collective". Artists explore the mediascape by creating new models of democratic interaction while large corporations promote a hybridization of the Internet with sheer commercial interests, following old models inherited from the highly regulated world of the communications industry. Proposed new technologies, such as the so-called InterCast (<http://intercast.org>), try to absorb the public space of the Internet and convert it into an extension of the private broadcast world. InterCast technology will enable a new generation of personal computers to receive broadcast Web pages and other data combined with associated cable or broadcast television programming. This technology will deliver data with the TV signal in the vertical blanking interval to personal computers equipped with InterCast receivers and software. The InterCast consortium assumes that viewers will watch TV on a small window on their computer screens and receive additional data on another window on request. The myopic vision behind this assumption ignores the fact that in cyberspace computers are not passive terminals, and that since the very early days of the Internet (<http://cuboulder.colorado.edu/Digit/janfeb/InternetHist.html>), remote users have been more interested in the possibility of new forms of social interaction than in any other use of the technology. Technological changes are deeply related to political and economical forces. Artists working in electronic media are in a unique position to offer social critiques and offer alternative models from within.

Sharing the same concerns for the political resonance of hierarchical mediascapes and for the socio-aesthetic possibilities of recombined and hybridized electronic media expressed by Ponton and Van Gogh TV, since 1989 I have been working with Ed Bennett in the *Ornitorrinco* project of telepresence installations (<http://www.uky.edu/Artsource/kac/kac.html>). In Portuguese, "ornitorrinco" means platypus, an animal popularly thought of as a "hybrid" of bird and mammal. The concept of telepresence in art, which I introduced in my 1990 article "Ornitorrinco: Exploring telepresence and remote sensing"

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(<http://www.uky.edu/FineArts/Art/kac/ornitorrinco.abstract.html>), has been widely used in the scientific community since the early 1980s. It references emerging remote control scenarios, in which a person guides a telerobot from afar and receives visual feedback, thus gaining a sense of presence in the remote environment.

The basic structure of the *Ornitorrinco* series of telepresence installations is comprised of the wireless telerobot itself, regular phone lines (both for vision and remote control), and remote spaces. Viewers become participants as they transport themselves to the remote body and navigate the remote space freely by pressing the keys on a familiar telephone. *Ornitorrinco* remote spaces are always built to the scale of the telerobot, inviting viewers to abandon the human scale temporarily and to look at a new world from a perspective other than their own. In our telepresence event, *Ornitorrinco in Eden*, realized on October 23, 1994, we hybridized the Internet with telerobotics, physical (architectural) spaces, the telephone system, the parallel cellular system, and a revised if literal digital "television". This enabled participants to decide by themselves where they went and what they saw in a physical remote space via the Internet. Anonymous participants shared the body of the telerobot, controlling it and looking through its eye simultaneously. This telepresence installation integrated new non-formal elements, such as co-existence in virtual and real spaces, synchronicity of actions, real-time remote control, operation of telerobots, and collaboration through networks.

Ornitorrinco in Eden bridged the placeless space of the Internet with physical spaces in Seattle, Chicago, and Lexington, Kentucky. The piece consisted of these three nodes of active participation and multiple nodes of observation worldwide. Anonymous viewers from several American cities and many countries (including Finland, Canada, Germany, and Ireland) came online and were able to experience the remote installation in Chicago from the point of view of *Ornitorrinco*, a mobile and wireless telerobot in Chicago controlled in real time by participants in Lexington and Seattle. The remote participants shared the body of *Ornitorrinco* simultaneously. Via the Internet, they saw the remote installation through *Ornitorrinco's* eye. Participants controlled the telerobot simultaneously via a regular telephone link (three-way conference call) in real-time.

In the new interactive and participatory context generated by this networked telepresence installation realized over the Internet, communicative encounters took place not through verbal or oral exchange but through the rhythms that resulted from the participants' engagement in a shared, mediated experience. Viewers and participants were invited to experience together, in the same body, an invented remote space from a perspective other than their own, temporarily lifting the ground of identity, geographic location, physical presence, and cultural bias. As the piece was experienced through the Internet, anybody in the world with Internet access could see it, dissolving gallery walls and making the work accessible to larger audiences.

By merging telerobotics, remote participation, geographically dispersed spaces, the traditional telephone system as well as cellular telephony, real-time motion control, and videoconferencing through the Internet, this networked telepresence installation produced a new form of interactive experience which, in consonance with Ponton's work, points to future forms of art. If mass media's unidirectional

discourse is to renew its structure and its reach through pseudo-interactive gadgets in the next century, it is clear that more and more people will live, interact, and work between the worlds inside and outside the computer. As a result of the expansion of communication and telepresence technologies, new forms of interface among humans, plants, animals, and robots will be developed. This work is taking a critical step in this direction.

With new wearable computers, portable satellite dishes, wristphones, holographic video, and a whole plethora of new technological inventions, telecommunications media will continue to proliferate, but by no means can this be seen as assurance of a qualitative leap in interpersonal communications. Networked and interactive art works create a context in which anonymous participants perceive that it was only through their shared experience and non-hierarchical collaboration that little by little a new experience is constructed. In this new reality, spatio-temporal distances become irrelevant, virtual and real spaces become equivalent, and linguistic barriers can be temporarily removed in favor of a common experience.

New York-based Canadian video artist, composer, and performer Phillip Djwap produced the satellite/MBone (Multicast Backbone or Multimedia Backbone) telecast "El Naftazteca: Cyber TV for 2000 AD", in collaboration with Mexican artist Guillermo Gómez-Peña and Adriene Jenik, on November 22, 1994 (http://hibp.ecse.rpi.edu/~stewart/iear/el_naftazteca.html).

The character El Naftazteca is "a renegade high-tech Aztec who commandeers a commercial television signal and broadcasts a demonstration of his Chicano Virtual Reality machine from the techno-alter setting of his underground bunker. The Chicano Virtual Reality machine enables El Naftazteca to instantly retrieve any moment from his or his people's history and then display the moment in video images," explains Gómez-Peña, a participant in the international mail art movement in the 1970s who addresses issues of multiculturalism in his work with several media, including film, video, radio, and installation art. "What will television, and performance art, look like in 10 years? It will have to be multilingual and it will marginalize everyone," states Gómez-Peña. An interactive component to the production encouraged viewers to phone the iEAR Studios of Rensselaer Polytechnic Institute and examine the basic cultural assumptions they maintain about U.S.-Latino relations. Via the MBone, computer users communicated directly with El Naftazteca for the 90 minutes of the performance.

This was one of the first art works to explore the MBone (<http://www.eit.com/techinfo/mbone/mbone.html>). A virtual network, layered on top of the physical Internet to support routing of IP multicast packets, the MBone is applied in network services such as audio and video conferencing around the world. Today it is mainly used by scientists to interactively attend videoconferences, although some cultural manifestations already can be seen in several countries.

Exploring the hybridization of radio and the Internet, Austrian artist Gerfried Stocker (<http://gewi.kfunigraz.ac.at/x-space/bio/stocker2.html>) created *Horizontal Radio* in collaboration with many other artists and technicians in several countries (<http://www.ping.at/thing/orfkunstradio/HORRAD/horradisea.html>). The project ran for 24 hours live (June 22 to June 23, 1995) during the Ars Electronica Festival

in Linz, Austria, on the frequencies of many radio stations in Australia, Canada, Europe, Scandinavia, Russia and Israel, on the Internet, and at network intersections in Athens, Belgrade, Berlin, Bologna, Bolzano, Budapest, Edmonton, Helsinki, Hobart, Innsbruck, Jerusalem, Linz, London, Madrid, Montreal, Moscow, Munich, Naples, Quebec, Rome, San Marino, Sarajevo, Sydney, Stockholm, and Vancouver.

The project was loosely based on the theme of "migration" and intentionally challenged the standardized forms of communications promoted by big broadcasting institutions and entertainment corporations. *Horizontal Radio* created a new form of mediascape experience, in which self-regulated groups around the world collaborated on a single piece, integrating diverse communication features such as real-time transmissions typical of broadcast radio and the asynchronous nature of Internet audio. Participants merged several old and new technologies to transform radio into a space for the exchange of audio messages. This new audio environment, which combined multiple forms of sound art such as tape compositions, live-concerts, telematic simultaneous events between some of the participating stations, sound sculptures, texts, and sound collages triggered by the Internet, emphasized dialogic distribution and created a sense of equidistance that transcended the limited spatial range of radio transmitters.

Another important hybrid piece, this time merging television, radio, telephones, and the Internet, was *From Casablanca to Locarno: Love reviewed by the Internet and other electronic media* (<http://www.tinet.ch/videoart/multimedia.html>), realized by French artist Fred Forest (<http://www.tinet.ch/videoart/fredforest.html>) on September 2, 1995, in Locarno, Switzerland. In this piece, the artist transmitted the film "Casablanca", with Humphrey Bogart and Ingrid Bergman, without sound and with text onscreen informing the public about the possibility of interactive participation. The audience used the Internet and called participating radio stations to fill in with creative and improvised dialogues. Forest also controlled the images viewed on the screen from a theater in Locarno, open to the local public and transformed into a radio and television studio specially for this piece.

Undoubtedly, the Internet represents a new challenge for art. It foregrounds the immaterial and underscores cultural propositions, placing the aesthetic debate at the core of social transformations. Unique to postmodernity, it also offers a practical model of decentralized knowledge and power structures, challenging contemporary paradigms of behavior and discourse. The wonderful cultural elements it enables will continue to change our lives beyond the unidirectional structure that currently give shape to the mediascape. As participants in a new phase of social change, facing international conflicts and domestic disputes, we must not lose sight of the dual stand of the Internet. If it is dominated by corporate agendas, it could become another form of delivery of canned information parallel to television and radio, forcing netizens (i.e., the world, virtually) to conform to rigid patterns of interaction. Commercial imperatives could continue to prevent the Net from expanding in underdeveloped zones, such as South America and Africa. The Internet also exhibits the risk of making all cultural artifacts look the same, with virtual surfaces, standard interfaces, and regulated forms of communication.

The Internet has come a long way from the original small-scale network based on a command-line interface. It is clear that the future of art and the future of the Internet will be intertwined. What the

Internet itself will become, and what new art forms will emerge, are issues that must be addressed in the present. We must ask, however: how can the Internet be a truly global space when only 20 percent of the world's population has a telephone and countries such as Haiti have levels of illiteracy reaching 85 percent? The Internet itself is not the cause of these problems, neither is it the solution to fundamental problems such as the uneven distribution of wealth. The Internet mirrors social relations established outside of cyberspace. We must keep this in perspective as new technologies perpetuate existing social imbalances and new art forms point to alternative public scenarios.

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