Aspects of the Aesthetics of Telecommunications

Eduardo Koc
Art and Technology Department,
The School of the Art Institute of Chicago and
Computer Arts Program, Columbia College

INTRODUCTION

For the past fifteen years, increasing numbers of artists around the world have been working in a collaborative mode using telecommunications. In their "works," which we shall refer to as "events," images and graphics are not created as the ultimate goal or the final product, as is common in the fine arts. Employing computers, video, modems, and other devices, these artists use visuals in a much larger, interactive, bi-directional communication context. Images and graphics are created not simply to be transmitted by an artist from one point to another, but to spark a multidirectional visual dialogue with other artists and participants in remote locations. This visual dialogue assumes that images will be changed and transformed throughout the process in the same way that speech gets changed — interrupted, complemented, altered and reconfigured — in a spontaneous face-to-face conversation. Once an event is over, images and graphics stand not as the "result," but as documentation of the process of visual dialogue promoted by the participants.

This unique ongoing experimentation with images and graphics develops and expands the notion of visual thinking by relying primarily on the exchange and manipulation of visual materials as a means of communication. The art events created by telematic or telecommunication artists take place as a movement that animates and unbalances networks structured with relatively accessible interactive media such as telephone, facsimile (fax), personal computers, e-mail, and slow-scan television (SSTV). More rarely, radio, live television, videophones, satellites, and other less accessible means of communication come into play. But to identify the media employed in these "events" is not enough. Instead, one must do away with prejudices that cast off these media from the realm of "legitimate" artistic media and investigate these events as equally legitimate artistic enterprises.

This essay partially surveys the history of the field and discusses art events that were either motivated by or conceived specially for telecommunications media. The essay attempts to show the transition, from the early stages, when radio provided writers and artists with a new spatiotemporal paradigm, to a second stage, in which telecommunications media, including computer networks, have become more accessible to individuals and through which artists start to create events, sometimes of global proportions, in which the communication itself becomes the work.

Telecommunications art on the whole is, perhaps, a culmination of the process of dematerialization of the art object epitomized by Duchamp and pursued by artists associated with the conceptual art movement, such as Joseph Kosuth. If now the object is totally eliminated and the artists are absent as well, the aesthetic debate finds itself beyond action as form, beyond idea as art. It founds itself in the relationships and interactions between members of a network.

Art and Telecommunication

One must try to understand the cultural dimensions of new forms of communication as they emerge in innovative art works which will not be experienced or enjoyed as unidirectional messages. The complexity of the contemporary social scene permeated by electronic media, where the flux of information becomes the very fabric of reality, calls for a reevaluation of traditional aesthetics and opens the field for new developments. In other words, to address the aesthetics of telecommunications is to see how it affected and affects more traditional arts. It is also to investigate to what extent the context for a new art is created by the merger of computers and telecommunications. The new material with which artists will be dealing more and more must be identified and then traced, through the intersection between the new electronic processes of visual and linguistic virtualization brought irreversibly by telecommunications and the personal computer (word-processing, graphic programs, animation programs, fax/modems, satellites, teleconferencing, etc.) and the residual forms that resulted from the process of dematerialization of the art object, from Duchamp to conceptual art (language, video, electronic displays, printing techniques, happenings, mail art, etc.) to the present. This new art is collaborative and interactive and abolishes the state of unidirectionality traditionally characteristic of literature and art. Its elements are text, sound, image, and, eventually, virtual touch based on force feedback devices. These elements are out of balance; they are signs which are already shifting as gestures, as eye contact, as transfigurations of perpetually unfulfilled meaning. What is commuted is changed, re-changed, exchanged. One must explore this new art in
Two of the most interesting new forms of communication that seem to do away with the old addresser-addressee model proposed by Shannon and Weaver [1] and reinforced by Jakobson [2] are electronic mail (email) and conference calling. In email a user can post a message and set it adrift in electronic space, without necessarily sending it to a specific addressee. Then another user, or several other users at the same time, can access this message and answer it, or change it, or add a comment, or incorporate this message into a larger and new context in a process that has no end. The closed message, embodying as it must the identity of the subject (sender), is potentially dissolved and lost in the signifying vortex of the net work. If real-time is not crucial for email, the same cannot be said about conference calling, where three or more people engage in exchanges that don’t have to be limited to voice [3] If the linear model goes as far as allowing for addressee to become addressee when the poles are reversed, this new multidirectional and interconnected model melts the boundaries that used to separate sender and receiver. It configures a space with no linear poles in which discussion replaces alternate monologues, a space with nodes that point in several directions where everybody is simultaneously (and not alternately) both addressee and addressee. This is not a pictorial or volumetric space, but an aporetic space of information in flux, a disseminated hyper space that does away with the topological rigidity of the linear model. It shares the properties of non-linear systems, such as are found in hypermedia or in the statistical self-similarity of fractals, as opposed to the embellished linear surfaces of postmodern painting. It is here, possibly, that artists can intervene critically and suggest a redefinition of the framework and the role of telematics, demonstrating that antagonistic forces mutually constitute each other. What we used to call true and real is and has always been reciprocally and dynamically, in its play of differences, constituted by what we used to call false and unreal. Cultural values are also questioned, since the structures that privileged one culture over others are conceptually challenged, bringing cultural differences to the forefront. Artists can also show, by working with the new media, what role the new media play in forming or preserving stable structures that form the self, that model communication, and, ultimately, that create social relations (including relations of authority and power).

In like manner, artist and audience are also constructed in this play of differences. If the mass-produced printed book has generated both the notions of author and of audience as we know them today, associating control over the distribution of printed information to power, the disseminated play of meaning in telematic networks potentially dissolves both without fully establishing the integrated, harmonized, aural global village dreamed of by McLuhan. If telecommunication is that which brings people closer, it also is that which keeps them apart. If telematics is that which makes information accessible to everyone at any moment regardless of geographic frontiers, it also is that which makes certain kinds of data generated by particular groups in certain formats accessible to people involved with specific institutions. That which brings people closer is also what keeps them away; that which asks is also that which affirms certain values implicit in the framing of the question. If there is no end to this play, to this motion, there must be awareness of its context. But then again, awareness is not removed from this motion through which it is also configured.

To the linear model of communication, which privileges the artist as the codifier of messages (paintings, sculptures, texts, photographs), telematics opposes a multidirectional model of communication, one where the artist is creator of contexts, facilitator of interactions. In the first case, messages have physical and semiological integrity and are open only to the extent they allow for different interpretations. In the second case, it is not mere semantic ambivalence that characterizes the signification process that is dynamic, destabilized, and multivocal, within a signification process not based on the opposition artist/audience but on the differences and identities they share. Messages are not "works" but a part of larger communicative contexts, and can be changed, altered, and manipulated virtually by anybody.

One of the problematic issues here is that the dissolution of the distinction between artist and user takes away from artists their privileged position as senders or addressers, because there is no more message or work of art as such. It is clear that most artists are neither prepared nor willing to abandon this hierarchy because it undermines the practice of art as a prof-
itable activity and the social distinction associated with notions such as skill, craft, individuality, artistic genius, inspiration, and personality. The artist, after all, is someone who sees himself or herself as some­body who should be heard, as somebody who has something important to say, to transmit to society [5]. On the other hand, one can ask to what extent artists who cre­ate telecommunication events may restore the same hierarchy they seem to negate by presenting themselves as the organizers or creators of the events they promote—in other words, as the central figure from which meaning radiates. As it seems, while a television director works in collaborative fashion with tens or hundreds of people without ever giving up the responsibility for the outcome of the work, the artist (content creator) that produces telecommunication events sets a network without fully controlling the flux of signs through it. The artist working with telecommunication media gives up his or her responsibility for the “work,” to present the event as something which restores or tries to restore the responsibility (in Baudrillard’s sense) of the media. [6]

I must observe that certain traces of apparently uncritical enthusiasm for this change in the processes and issues of art are ident­ifiable not only in the present essay and in other texts of mine on the subject [7], but also in the writings of other artists that address the aesthetics of communications at large, and of telecommunications or telematics in particular, including Bruce Breland [8], Roy Ascott [9], Karen O’Rourke [10], Eric Gidney [11] and Fred Forest [12]. Artists are now endowed with new instru­ments with which they reflect on contem­porary issues, such as cultural relativism, scientific indeterminacy, the political economy of the information age, literary decon­struction, and decentralization of knowledge. Artists are now able to respond to these issues with the same material (hardware) and immaterial (soft­ware) means that other social spheres employ in their activities, in their commu­nion and isolation. If actual walls are falling (Berlin, the Iron Curtain), and so are metaphorical walls (telematic space, virtu­al reality, telepresence), one cannot simply overlook or overestimate these historical

3. Two examples based on personal experience: a) In 1989, Claude Foden and I (Bruce Breland), and Martin Wilkon (Pittsburgh) and Doron Mirow (Boston) collaborated in “Three Cities,” a slow-motion exchange operated through three-way calling; b) In 1990, Foden and I suggested to Bruce Breland the creation of an international telecommunication event to be called “Impromptu,” in which artists would try to engage in conversations with tele­media (fax, SWV, etc.) the same improvised way they do when talking face-to­face. “Earth Day” was going to be celebrated soon, and Bruce suggested we expand the idea to encompass the ecological context and make it “Earth Day Impromptu.” Foden and I agreed, and we started to work with Bruce and the Dox group, and Irene Frigyesi. In organizing it, I later, Breland’s experience with large networks proved crucial: working with other Dan members, he made possible a very large笋 conference call with several artists in different coun­tries, which was, together with the fax and videophone network, part of the “Earth Day Impromptu.”
5. In Artists’ use of interactive telephone-based communication systems from 1977-1984 (unpublished master thesis submitted to City Art Institute, Sidney College of Advanced Education), 1986, p. 18. Eric Gidney gives an account of pioneer artist Bill Bartlett’s telecommunication events and also of his disapp­ointment with other artist’s responses. “Bartlett was dismayed at the rapacity of many North American artists, who were willing to collaborate only in order to lubricate their own careers. He found that some artists would simply refuse to correspond after a project was completed. He felt let down, exploited and “burned out.” Aesthetically, that’s a good reason, he decided to withdraw from any involvement in telecommunication work.” Sidney also summarizes the telecommunication work of pioneer artist Luis Bar, and quotes her (p. 21): “A hierarchical structure is not conceptually well-founded and does not create the best conditions for communication by artists. This (medium) is only accessible in regions where artists and video people already have a good track record of working together, sharing ideas, and preparing materials.”
6. Jean Baudrillard, “Requiem for the Media,” Video Culture (New York: Visual Studies Workshop Press, 1986), John Hanhardt, ed., p. 129. Baudrillard formu­lates the problem of lack of response (or inappropriability) of the media with clarity. “The totality of the existing architecture of the media founds itself on this latter definition: they are what always prevent response, making all processes of exchange impossible (except in the various forms of response sim­ulated, themselves integrated in the transmission process, thus leaving the un­natural nature of the communication intact). This is the real obstruction of the media, and the system of social control and power is exerted in it.” In order to restore the possibility of response (or responsability) in the current configuration of the telecommunications media it would be necessary to provoke the destruc­tion of the existing structure of the media. And this seems to be, as Baudrillard rushes to point out, the only possible strategy, at least on a theoretical level, because to take power over media or to replace its content with another con­tent is to preserve the monopoly of speech.

and technical achievements. It is not only with sheer enthusiasm for new tools that the artist will work with communication technologies, but also with a critical, sceptical approach concerning the logic of mediation they entail. This means not ignoring that utopias of ubiquitous, electronically mediated communication necessarily exclude those cultures and countries that, usually for political and economic reasons, don’t have the same or compatible technologies and therefore cannot participate in any global exchange.[13]

Let’s suppose that in a not so distant future Jaromé Lander’s dream of “post-symbolic” communication[14] becomes possible and that the cost per minute in a cyberspace matrix is comparable to the normal cost of a phone call. This hypothetical situation could be a viable approach to the problem of linguistic barriers (including language impairment), but it would be no different from other cases of economic segregation, given that even basic telephone technology is full of serious problems in most developing countries.

Perhaps exactly because of these problems, and not despite them, artists are using today’s techniques to discuss today’s issues. If telecommunications art will not simply ignore the contradictions inherited from the media and in the other technological monopolies present in post-industrial societies, I still like to think that perhaps freer forms of communication can emerge out of new interactive artistic practices that make the process of symbolic exchange the very nature of the work.

Disembodied Voices

An assessment of the parallel development of telecommunications media and new art forms throughout the twentieth-century reveals an interesting transition: one first sees the impact of new media on much older forms, such as radio influencing theater. Later, it is possible to detect more experimental uses of these media. At last, artists master the new electronic media and explore their interactive and communicative potential. In this perspective, radio is the first electronic mass communications medium used by artists.

In the late 1920’s commercialization of air waves was in its infancy. Radio was a new medium that captured the imagination of the listeners with an auditory space capable of evoking mental images with no spatiotemporal limits. A remote and undetected source of sound dissociated from optical images, radio opened listeners to their own mindscapes, enveloping them in an acoustic space that could provide both socialization and private experiences.

Radio was the first true mass medium, capable of remotely addressing millions at once, as opposed to cinema, for example, which was only available to a local audience.

In 1928 German film maker Walter Ruttmann (1887-1941) was invited by the Berlin Broadcasting System to create a piece for radio. Ruttmann had already achieved international recognition for his “Weekend” lasts about fifteen minutes and creates an aural atmosphere that portrays workers leaving the city and going to the countryside after a working day. At first sounds produced by saws, cars, and trains are predominant; later sounds of birds chirping and children speaking appear more often. As he had done with “Symphony of a Great City,” Ruttmann edited this pictureless film in experimental fashion: splicing the reel and with it the sound track, repeating certain sounds, reorganizing the sequence and duration of sounds. He edited sound like one edits film.

“Weekend” as a sound montage, conceived for a recording medium and for radio transmission, opened new venues and anticipated the aesthetics of movements such as Concrete Music and of John Cage and Karlheinz Stockhausen. Ruttmann defined his abstract films as “optical music,” and one should not hesitate to describe “Weekend” as the first “acoustic film” created for radio.

As it became more popular, radio inspired and attracted professionals from different backgrounds, including artists, performers, writers, and members of the avant-garde, such as the Italian Futurists. Since the very beginning of Futurism in 1909, Marinetti and his supporters promoted the surpassing of traditional forms and the invention of new ones at the same time that they celebrated technological militarization and war. Marinetti collaborated closely with Mussolini’s regime. In 1929 Marinetti became a member of the Italian Academy, founded by Mussolini, and in 1939 he served in a commission organized by the Fascist regime to censor undesirable books, including those written by Jewish authors. In 1935 he volunteered to serve in the war in Ethiopia, and in 1942 he departed, again as a volunteer, to the Russian front.

The Futurists’ last cry for a new art form came in September-October of 1933, with the “Manifesto Della Radio” or “La Radia,” signed by Marinetti and Pino Mosnato, and published both in “Gazzetta del Popolo,” Torino, September 22, and in their own periodical entitled “Disegno della Rivista”.

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abstract animated films, such as Opus I, II, III, and IV, which pioneered the genre and anticipated computer animation by half a century. His experimental documentary “Berlin, Symphony of a Great City” (1927) also was acclaimed worldwide, and inspired a whole generation of film makers who then created filmic “city symphonies.” In addition to his contribution to film making, Ruttmann’s innovative work for radio opened the air waves to the aesthetic of the avant-garde, challenging the standardization of programming imposed by commercial imperatives.

In order to create the commissioned piece, Ruttmann was given access to what was one of the best recording systems for film in the world, the “Triergon” process. Coming from the world of cinema, Ruttmann decided to create “Weekend,” a movie without images. It is a discontinuous narrative based on the mental images projected by sounds alone. He employed the sound tracks in the reel as he would have employed the frame to record images.

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In 1941, Marinetti published an anthology of Futurist theater with a long title, “The Futurist theater synthetic (dynamic-logical-autonomous-simultaneous-visionistic) surprising aeroradiotelevisual music-hall radiophonic (without criticisms but with Misurazioni),” [17] in which he compiled nine of Masnata’s and five of his own radio works (“radiophonic synthesis”). Throughout the 1930’s radio not only became technically reliable but tunable, allowing the listener to choose among several programming options. Radio could now receive short, medium, and long waves from considerable distances. Whether enjoyed for entertainment or hailed as a tool for political propaganda, radio became a domestic convergence point. Listening to radio became a generalized habit in the 1930s, when the world was at the verge of another global conflict.

On October 30, 1938, the Sunday program “The Mercury Theater on the Air” directed by twenty-three year old Orson Welles and aired by The Columbia Broadcasting System (CBS)—in New Jersey, always at 8pm—would present another adaptation of a literary text, this time to celebrate Halloween. Writer Howard Koch adapted the novel chosen by Orson Welles, “The War of The Worlds” (1898) by Herbert George Wells (1866-1946), updating the story and transposing the action to a virtually unknown but real place, Grover’s Mill, in New Jersey. The choice was accidental but convenient, since it was close to the Princeton Observatory, where Koch placed the fictitious Astronomy authority Prof. Pierson. More importantly, Koch structured the story, apparently following a suggestion by Mercury Theater producer John Houseman, intercalating music and news, so that it seemed that the music was being interrupted every now and then because of strange events and news flashes that reported them live. In Orson Welles’ dramatic voice, listeners became aware, little by little, that the initial explosions observed on the surface of Mars turned out to be disturbances caused by unidentified flying objects that landed in Grover’s Mill. Next, the monstrous Mart...
ian invaders started to use their “heat ray” and project its “parallel beam” against everything surrounding them, burning people alive and destroying cars, houses, and cities. Despite several announcements during the program that it was fictitious, the news format of the broadcast caught casual listeners by surprise. At the end, when Prof. Pierson read his diary and revealed that the Martians had been defeated by terrestrial micro-organisms, it was too late.

With nervous voices, Mercury Theater actors and actresses depicted the landing of Martian war machines, the fire ignited by the deadly rays, and the panic of witnesses. The public reacted with anguish and despair. Nobody died but several people got injured, miscarriages occurred, houses were left behind without a second thought, roads were caught in huge traffic jams, and policemen and firemen were mobilized against the invisible menace. In New York City, many residents loaded their cars and drove away from New Jersey. Calls from the East overloaded the telephone lines in the Southwestern United States and in Newark, New Jersey, hundreds of doctors and nurses called hospitals to volunteer their services. In Concrete, Washington, an accidental blackout happened exactly at the point in the transmission when the Martians were taking control over the country’s power system. In the South, people sought refuge in local churches and in Pennsylvania a woman was saved from suicide by the timely return home of her husband. Angry listeners filled lawsuits against Welles and CBS, without major consequences.

Welles’ contract made him not responsible for consequences of any of the program’s broadcasts, and CBS could not be severely penalized since there was no previous similar case which might have allowed them to anticipate the incident.

Welles’ simulated Martian invasion revealed, for the first time, the true power of radio. It exhibited the unique ability of radio to play with the breath of speech and the plastic sonority of its special effects to excite the imagination of the listener. It showed how the technical reliability of the medium built its credibility, giving veracity to the “news” transmitted through it. It explored unique temporal rhythms, mixing real-time (the transmission lasted about one hour) and dramatized time (Prof. Pierson tells us at the end that the whole event happened in a few days).

The silence between the cuts (from music to news and vice-versa) was not simply an absence of sound, as in a musical pause; it was presented to the listener as the actual waiting time to link the reporter at the scene of the landing to the crew in the studio. Perhaps, even more significant was the fact that during the transmission the panic felt by thousand of listeners was very real. The invasion was an event that happened in the medium of radio and this medium was already so much a part of the lives of the listeners, it was so transparent and unquestionably reliable, that the transmission was not experienced as a representation or enactment. It was “hyper-real” in Baudrillard’s sense of the word, an experience in which signs not grounded in reality are so much real that they became more real than the real.\(^{[18]}\)

Welles made explicit the pseudo-transparency of the mass media by unveiling the mechanisms by which the media tries to make itself a clear window to truth, the way it pretends to ignore its own mediation and the influence it has on the collective unconsciousness of society. No doubt, Welles attracted the rage of lawmakers with a propensity to censorship. Radio and electronic media would never be the same after the simulated invasion from Mars.

**Telephone Pictures**

The telephone, the automobile, the airplane, and, of course, radio, were for the avant-garde artists of the first decades of this century a symbol of modern life. Through them one could extend human perception and capabilities. The Dadaists, however, deviated from the general enthusiasm for scientific rationalism and criticized technology’s destructive power. In 1920, in the “Dada-Almanac” edited in Berlin by Richard Huelsenbeck, they published the irreverent proposal that a painter could now order pictures by telephone and have them made by a cabinet-maker. This idea appeared in the “Almanac” as a joke and a provocation. Constructivist Hungarian artist Laszlo Moholy-Nagy (1895-1946) was living in Berlin at the time, but it is uncertain whether he read it or heard about it. What is certain is that the soon-to-be member of the Bauhaus believed that intellectual motivations were as valid as emotional ones in creating art and decided to prove it to himself. Years later, the artist wrote:

In 1922 I ordered by telephone from a sign factory five paintings in porcelain enamel. I had the factory’s color chart before me and I sketched my paintings on graph paper. At the other end of the telephone the factory supervisor had the same kind of paper, divided into squares. He took down the dictated shapes in the correct position. It was like playing chess by correspondence. One of the pictures was delivered in three different sizes, so that I could study the subtle differences in the color relations caused by the enlargement and reduction.\(^{[19]}\)

With the three telephone pictures described above, the artist took his Constructivist ideas several steps further. First, he had to determine precisely the position of forms in the picture plane with the minute squares in the graph paper as the grid through which the pictorial elements were structured. This process of pixelation in a sense anticipated the methods of raster based, computer art. In order to explain the composition over the phone, Moholy had to convert the art work from a physical entity to a description of the object, establishing a relationship of iconic equivalence. This procedure anticipated the methods of conceptual art in the 1960s. Next, Moholy transmitted the pictorial data making the process of transmission a significant part of the overall experience. The transmission dramatized the idea that the modern artist can be subjectively distant, personally removed from the work. It expanded the notion that the art object doesn’t have to be the direct result of the hand or the craft of the artist. Moholy’s decision to call the sign factory, capable of providing industrial finishing and scientific precision, instead of an amateur painter for instance, attests to his motives. Furthermore, the multiplication of the final object in three variations destroyed the notion of the “original” work, pointing toward the new artforms that emerge in the age of mechanical reproduction. Unlike Monet’s sequential paintings, the three similar telephone pictures are not a series. They are copies.
without an original. Another interesting aspect of the work is that scale, a fundamental aspect of any art piece, becomes relative and secondary. The work becomes volatized, being able to say, relative scale is a characteristic of embodied in different sizes. Needless to computer art, where the work exists in the virtual space of the screen and can be embodied in a small print or a mural of gigantic proportions.

Despite all the interesting ideas it announces, the case of the telephone pictures is controversial. Moholy’s first wife, Lucia, with whom he was living at the time, states that in fact he ordered them in person. In her account of the experience, she recalls that he was so enthusiastic when the enamel paintings were delivered that he exclaimed, “I might even have done it over the phone!” [20] The third personal record of the event, and as far as I know there are only three, comes from Sybil Moholy-Nagy, the artist’s second wife:

He had to prove to himself the supra-individualism of the Constructivist concept, the existence of objective visual values, independent of the artist’s reputation and his specific technique. He dictated his paintings to the foreman of a sign factory, using a color chart and an order blank of graph paper to specify the location of form elements and their exact hue. The transmitted sketch was executed in three different sizes to demonstrate through notations of density and space relations the importance of structure and its varying emotional impact. [21]

We are left with the question, usually set aside by commentators, of whether Moholy actually employed the telephone or not. Although apparently irrelevant, since the three works were actually painted by an employee of a sign factory according to the artist’s specifications and were named “Telephone Pictures” by Moholy-Nagy himself, this question cannot be totally disregarded or answered. Lucia seems to remember the event clearly, but the artist’s account, in the absence of proofs that state otherwise, would have to prevail. One tends to assume they could have been ordered over the phone because Moholy was an enthusiast of new technologies in general and of telecommunications in particular. In the book “Painting, Photography, Film,” [22] originally published in 1925, he reproduced two “wireless telegraphed photographs” and as examples of two images he described as a sequence of “telegraphed cinema,” all by Prof. A. Korn. In the same book, Moholy seems to conclude this chapter by launching an early call for new art forms to emerge out of the age of telecommunications:

Men still kill one another, they have not yet understood how they live, why they live; politicians fail to observe that the earth is an entity, yet television has been invented: the “Far Seen” tomorrow we shall be able to look into the heart of our fellow-man, be everywhere and yet be alone. (…) With the development of phototelegraphy, which enables reproductions and accurate illustrations to be made instantaneously, even philosophical works will presumably use the same means—though on a higher plane—as the present day American magazines. [23]

With Moholy-Nagy’s three “telephone pictures,” which were shown in his first one-man show in 1924 at the gallery Der Sturm in Berlin, we see the artist acknowledging the conceptual power of the telephone exchange. This first experience was recognized by The Museum of Contemporary Art in Chicago as a forerunner of the conceptual art of the 1960s with its emphasis on remote-control creation: “Art by Telephone.” Thirty-six artists were asked to phone the Museum, or to answer the Museum’s call, and then to instruct Museum staff about what their contribution to the show would be. The Museum then produced the pieces and displayed them. A record-catalogue was produced with recordings of the phone conversations between artists and the Museum. The Director of the Museum, Jan van der Marck, asserted that no group exhibition had before tested the aesthetic possibilities of remote-control creation: “Making the telephone ancillary to creation and employing it as a link between mind and hand has never been attempted in any formal fashion.” [24]

“Art by Telephone” was not meant as a telecommunications art event. It was a group exhibition of works produced by an unusual method: telephone descriptions followed by the curator’s own implementations. The artist was to be, as in the case of Moholy, physically absent from the process. Marck saw this as an expansion of the syncretism between language, per

2. Telecommunication media now efface the distinction between themselves and what used to be perceived as something apart, totally different from and independent of themselves, something we used to call the “real.” Baudrillard calls this situation “hyperreal” or “hyperreality.” This lack of distinction between sign (a form or medium) and referent (or content or real) as stable entities is by the same token a step further away from McLuhan and is only closer to the new literary criticism as epitomized by Derrida. In what is likely to be his most celebrated essay, “The Postmodern Simulacrum,” he once again acknowledges McLuhan’s perception in that in the electronic age the media are no longer identifiable as opposed to its content. But Baudrillard goes further saying that “there is no longer any medium in the literal sense: it is now intangible, diffuse and diffused in the real, and it can no longer even be said that the latter is detached by it.”
formance, and visual arts characteristic of the decade. Conceptual art set the framework for the emergence of telecommunications art by emphasizing that cosa mentale that Duchamp had already defended against the purely visual result of retinal painting. Mark wrote that the participants:

want to get away from the interpretation of art as specific, handcrafted, precious object. They value process over product and experience over possession. They are more concerned about time and place than about space and form. They are fascinated with the object quality of words and the literary connotation of images. They reject illusion, subjectivity, formalist treatment, and a hierarchy of values in art. (25)

This exhibit’s pioneering status in the development of the aesthetics of telecommunications was counterbalanced by many artists’ rather shy response to the challenge of making creative use of the telephone. The majority of the participants never worked with communications or telecommunications before, but what is noticeable is that their response to this unique opportunity was still bound by the notion that the work of art is embodied in tangible matter, even if in matter without durable substance. Most artists used the telephone in an ordinary way, providing instructions for the making of objects and installations. Only a few dared to transform an actual communication experience in the work itself. The most notable exceptions are Stan VanDerBeek, Joseph Kosuth, James Lee Byars, and Robert Huot.

Huot’s interactive proposal was the most unusual if not the most literal. It potentially involved all visitors of the museum and attempted to generate unexpected first meetings by employing chance and anonymity. Twenty-six cities in America were chosen, each starting with a letter of the alphabet, and twenty-six men named Arthur were selected, one in each city. Each Arthur’s last name was the first listing under the initial letter of the city (Arthur Bacon, in Baltimore, for instance). The Museum displayed a list of all cities and the names of the artists. Each visitor was invited to call and ask for “Art.” The work was the unexpected conversation between “Art” and the visitor, and its development totally up to them.

Huot’s piece, no matter if intended as a pun on the title of the show, presents the artist as the creator of a context, not a passive experience. It disregards pictorial representation, gives up control over the work and takes advantage of the real-time and interactive qualities of the telephone. The piece was meant to spark relationships, and by doing so anticipated much of the telecommunications work of the next two decades.

Visual Telephonics and Beyond

For all the social, political, and cultural implications of the telephone, or more precisely, the dialogic structuring of the telephone, one is compelled to observe that little critical attention has been paid to it. Historical, technical, and quantitative sociological studies can shed little light on the deeper implications of the telephone, which are adjacent to linguistics, semiology, philosophy, and art. Avital Ronell has brought to the fore a long-distance philosophical call that is as unprecedented as it is welcome. Letting her own discourse oscillate between speech and writing in the connections and reroutings of a metaphorical switchboard, Ronell’s book has provided a new philosophical insight, a multi-party line between Martin Heidegger, Sigmund Freud, Jacques Derrida, and, of course, Alexander Graham Bell. Ronell’s gesture, albeit on another plane, is similar to that of those artists that since the late 1970s have found in the telephone an incomparable source for experimentation. Why the telephone?

In some ways it [the telephone] was the cleanest way to reach the regime of any number of metaphysical constellations. It destabilizes the identity of self and other, subject and thing, it abolishes the originality of site; it undermines the authority of the Book and constantly menaces the existence of literature. It is itself unsure of its identity as object, thing, piece of equipment, perlocutionary intensity, or artwork (the beginnings of telephony argue for its place as artwork). It offers itself as instrument of the telephonic event, and the disconnecting force of the telephone enables us to establish something like the maternal super ego. [27]

The beginnings of telephony argued for the artistic merits of the telephone based on its capacity for transmitting sound over long distances, i.e., based on its resemblance to what we know today as radio. It would be possible, Bell and other pioneers hoped, to listen to operas, news, concerts, and plays over the phone. In Bell’s earliest lectures and performances, when the two-wayness of the medium was still a technical obstacle, Watson would play the organ and sing over the phone to entertain the audience and demonstrate the possibilities of the new device. Several decades later, if business over the telephone multiplied transactions, its use in the coziness of the household provoked mixed reactions. John Brooks points out [28] that H. G. Wells, in his “Experiment in Autobiography” (1934), complained about the invasion of privacy spawned by the telephone. Wells expressed his desire for “a one-way telephone, so that when we wanted news we could ask for it, and when we were not in a state to receive and digest news, we should not have it forced upon us.” [29]

Wells was conjuring the image of a future all-news radio station, the creation of which, as McLuhan noticed, would later result from television’s impact on radio. More importantly, Wells was reacting to the intrusion of that “destinal alarm” that Ronell refers to, to that “disconnecting force” of the telephone that is so disturbing and attractive, so unsettling and arresting. When Wells stresses that the telephone provides news even when he does not desire it, he takes notice of the projective trail of the telephone, which is the launching of speech, and speech alone, in the direction of the other, in constant demand for immediate readiness. This demand takes place in the linguistic domain and is properly answered by a question which is at the same time a dubious answer: “yes?”

Perhaps what is unique about ordinary telephony is that in its circuitry only spoken language circulates. As Robert Hopper has suggested [30], the telephone emphasizes the linearity of signs by splitting sound off from all other senses, by isolating the vocal element of communication from its natural congruity with the facial and the gestural. By cutting the auditory off of its interrelation with the visual and the tactile, and by separating interlocutors from the speech community, the telephone abstracts communication processes and
reinforces Western phonocentrism (31), now translated into an outreaching telephonocentrism. It is to destabilize this phonocentrism, and subsequently to contribute in undoing hierarchies and centralization of meaning, knowledge, and experience, that theorists like Ronell and telecommunications artists construct their calls. In the twentieth century, what Derrida calls phonocentrism can be traced back to Saussure. Hopper cautiously finds Saussure bound to the telephone and supports his argument with evidence that Saussure lived in Paris when the city saw the boom of telephony. But more than that, he reminds us that the telephone was invented by a speech teacher of the deaf (Bell) and he stresses the acute resemblance of Saussure’s speaking-circuit to telephonic communication (32) in the almost scientific vocal isolation of telephony and in the presence of absent speakers, speech speaks loudly of its linear structure and offers itself for theoretical (and artistic) investigation.

Being a modality which excludes all that is different from vocal immediacy, the telephone speaks volumes about its Platonic metaphysical framework. But when zeroing in on several particulars of telematic experience, one instantiates new insights on the telephonic structure that contribute to a possible deconstruction of that framework. Perhaps the most relevant aspect of the new telephonic syntax is its recent technical absorption of the graphic element. It is now technically possible not only to talk but to write over the phone (email), to print over the phone (fax), to produce and record sound and video (answering machine, slow-scan TV, videophone) over the phone. As we have seen, it is also very likely that in the future, fiber optics will give us access to telerecyberspace. The telephone is becoming the medium par excellence of that “enlarged and radicalized” writing that signals Derrida. But contrary to what one would otherwise hypothesize, the more the telephone becomes speechless the more central its role becomes in our lives. It is clear that the telephone is slowly but continuously ceasing to owe its existence exclusively to speech and that the cultural implications of this new aspect of contemporary life remains to be elaborated as an aesthetic experience.

If the artist can have a unique encounter with technology because he or she is an expert, aware of the changes in sense perception, as McLuhan purported (33), then it is the artist who will instigate the discovery of new realms of experience beyond ordinary cognition. Today small numbers of artists informed by a spirit of genuine artistic inquiry are turning their backs on the art market and are committing themselves to creating telecommunications events in the placeless places of networking.

Starting in 1982, after the pioneering telecommunication activities of Bill Bartlett, Stan VanDerBeek and Liza Bear, Bruce Breland, Matt Wrbican and other members of the Pittsburgh-based Dax group (which now has an extension in Bellingham, Washington), have worked consistently with fax and slow-scan TV as artistic media. Dax has created or participated in telecommunications events in which telephone lines are saturated with signals that flow in multiple directions carrying graphic information. These interactions often include other media as well (dance, computer music, etc.), span over several time zones, are geographically dispersed, and establish varied kinds of relationships between participants. Bruce Breland, Director of the group, wrote that:

The concept of interactive systems has erased the old boundaries of regionalism or nationalistic art. Telematics has created the possibility of a new setting for interactive participation between individuals and groups. Telematics provides a means for instantaneous and immediate dissemination of information granting the individual a choice between simple retrieval or intricate collaborative art events. (34)

One of their first activities was participation in “The World in 24 Hours” (1982), a global network organized by Robert Adian for Ars Electronica, in Austria, which linked sixteen cities on three continents for a day and a night. Three years later, they stretched the notion of world-wide interaction with “The Ultimate Contact,” a slow-scan TV piece created over FM radio in collaboration with the orbiting space shuttle Challenger. The Dax group

25 Art by Telephone, op. cit.
27 Ronell, op. cit., p. 9.
29 Quoted by Brooks, op. cit., p. 220.
31 The history of Western civilization, the history of our philosophy, is one of what Derrida calls “metaphysics of presence.” It is a history of the privilege of the spoken word which is thought as the immediate, direct expression of consciousness, as the presence or manifestation of consciousness to itself. In a communication event, for example, the signifier seems to become transparent as if allowing the concept to make itself present as what it is. Derrida shows that this reasoning is not only present in Plato (only spoken language delivers truth) and Aristotle (spoken words as symbols of mental experience), but in Descartes (to be is to think, or to pronounce this proposition in one’s mind), Rousseau (condemnation of writing as destruction of presence and as disease of speech), Hegel (the ear perceiving the manifestation of the ideal activity of the soul), Hume and Kant (to account for consciousness at the instant of speaking). Hordad (the ambiguity of the “voice of being” which is not heard), and virtually in any instance of the development of the philosopher of the West. The rationale and implications of this biotechnology/phonoocentrism are not obvious and one must research into functioning. Derrida explains that language is impregnated by and with these notions, therefore, in every proposition or system of semantic investigations metaphysical assumptions cease to be the same as when underwritten by these notions. See Jacques Derrida, Of Grammatology (Baltimore and London: John Hopkins Press, 1976); also Jacques Derrida, Positions (Chicago: University of Chicago Press, 1981).
32 What Hopper does not account for is the fact that, in his discussion of linguistic interstate, Saussure only employs examples of face-to-face exchanges, eliminating telephonic intercourse. Saussure (Course in General Linguistics (New York: McGraw-Hill, 1966), p. 208), “While the proposition makes men ordinary, intercourse obliges them to move about. Intercourse brings together from other localities into a village, displaces a part of the population whenever there is a festival or fair, unites men from different provinces in the army, etc.”
34 Breland (New Observations), p. 10.
also participated in larger networks realized in acknowledged art institutions, such as the "Ubiqua" (1986) telecommunications lab at the 42nd Biennale de Venezia. In it, they participated with text (IP Sharp), slow-scan TV, and fax. More recently, they were the first to collaborate with African artists in a telecommunications event. On July 1990, they created “Dax Dakar d’Accord,” a slow-scan TV exchange with artists in Pittsburgh and Dakar, Senegal, as part of a Senegalese five-year commemoration of the African Diaspora, the “Goree-Almadies Memorial” [33]. Participants from Dakar included Breland, Wirbicam, Bruce Taylor, Mor Gueye (glass paintings), Serigne Salieu Mbacke, De C.A.S.A. (sand paintings), Les Ambas­sadeurs (dance and music), Le Ballet Unité Africaine (dance and music), and Fanta Mbacke Kouyate performing “Goree Song,” which makes reference to Goree Island in Dakar Harbour, holding and embarkation place for the slave trade that took place over a four-hundred year period.

In Brazil, or perhaps I should say, in and out of Brazil, artists such as Mario Ramiro, Gilbertto Prado (a member of French Art Reseaux), Paulo Bruscky, and Carlos Fadon have worked with telecommunications since the early or mid 1980s. The events created by these artists, some of whom have occasionally worked together, encompassed exchanges both on a national and international scale. Mario Ramiro, now living in Germany, is also a sculptor who works with zero-gravity and infrared radiation. He has initiated and participated in a number of telecommunications events with fax, slow scan TV, videotext, live television broadcasts, and radio. He has also written extensively on the subject. Paulo Bruscky, from Recife, well-known for his work in xerography and mail-art, is one of the few Brazilian artists to have been awarded a Guggenheim fellowship. His early work in telecommunications involved experiments with telex and fax. Carlos Fadon, who lived in Chicago and now is back in São Paulo, is a photographer and computer artist whose work is part of several international collections. One of his most original slow-scan TV pieces [36] is “Natureza Morta ao Vivo” (“Still Life/Alive”), which proposes that once one artist (B) sends an image to another (B), the image received becomes the background for a still life created live. The artist (B) places objects in front of the electronic image and the combination of both object and image is captured as a video still which is now sent back to the artist (A). This artist now uses this new image as the background for a new composition with new objects and sends it to the artist (B). This process is repeated with no terminus, so that the generation of a still life remains a work-in-progress through which a visual dialogue takes place.

In Paris, France, the Art Reseaux group, formed by Karen O’Rourke, Gilbertto Prado, Christophe le Francois and others, has been developing elaborate projects such as O’Rourke’s “City Portraits” [37], which call for participants in a global network to travel in imaginary cities by means of exchange of fax images. The project usually involves the initial creation of a pair of images, the entrance and the exit, which other artists then take as the extremes of the route they will explore in the metamorphosis of images exchanged over the telephone line. Artists create entrances and exits using images of the cities they live in, by manipulating other images to form synthetic landscapes or both, blending aspects of direct and imaginary experiences of the urban environment. Gilbertto Prado has been working on the “Connect” project, which involves at least two sites and two fax machines in each site. Artists in each site are asked not to cut the roll of thermal paper in the machine when fax images start to appear. Instead, they are asked to feed that roll into another fax machine and interfere in the images in the process. A loop is then formed, connecting not only the artists but the machines themselves. This new configuration forms a circle in electronic space, linking in an imaginary topology cities that can be as far apart as Paris and Chicago. As an example of possible systems of interaction beyond linear models, Prado designed a circular diagram in which the hands (and not the mouths or the ears of the interlocutors) are the organs used for communication.

Le Francois’ most recent project is “Infest,” in which artists are invited to investigate aesthetically that new aspect of contemporary life which is the deterioration of images and documents due to contamination and infection by computer viruses. During the exchanges, images suffer manipulations that attempt to destroy and reconstruct them (infection/disinfection), pointing to the new condition of electronic decay in the world of digital epidemiology.

How can there be a receiver or a transmitter as positive values if it is only in the connecting act, if it is only in the crisscrossings of telephonic exchanges, that such positions temporarily constitute themselves?

As the metaphors of human existence continue to intermingle with those of cybernetic existence, designers learn how to cope with issues of interfacing and artists compare remote communication to face-to-face interaction. Acknowledging the place of telephony in art, Karen O’Rourke reflected on the nature of fax exchanges as an artistic practice:

Most of us today have taken for granted (or even photography) as a starting point for our images, but the telephone itself. We use it not only to send images but to receive them as well. This nearly instantaneous feedback transforms the nature of the messages we send, just as the presence of a live audience affects the way in which actors interpret their roles or musicians their scores. [38]

Traditionally, as in the sign/idea relationship, representation (painting, sculpture) takes place as absence (the sign is that which evokes the object in its absence). Likewise, experience (happening, performance) is that which takes place as presence. One only experiences something when this something is present in the field of perception. In telecommunications art, presence and absence are engaged in a long-distance call that upsets the poles of representation and experience. The telephone is in constant displacement. It is logocentric but its phonetic space, now in
Congruity with inscription systems (fax, e-mail etc), signifies in the absence more typically associated with writing (absence of sender, absence of receiver). The telephone momentarily displaces presence and absence to instantiate experience not as pure presence, but, as Derrida wrote, "chains of differential marks." 39

Conclusion

The new aesthetic outlined in the previous pages certainly escapes from the problematic rubric of fine arts. The roles of artists and audience become intertwined; the exhibition qua forum where physical objects engage the perception of the viewer loses its central position. The very notion of meaning and representation in the visual arts—associated with the presence of the artist and stable semiotic conventions—is revised and neutralized by the experiential setting of communications. Having evolved from early experiments pursued by artists associated with the movement of conceptual art, where language and media were first investigated programmatically as artistic realms, telecommunications art provides a new context for the postmodern debate.

Our traditional notions about symbolic exchanges have been relativized by new technologies, from answering machines to cellular telephony, from cash stations to voice-interface computers, from surveillance systems to satellites, from radio to wireless moderns, from broadcast networks to e-mail networks, from telegraphy to free-space communications. Nothing in these prometers of social intercourse allows either optimism nor despair; they call for a disengagement from the concept of communication as transmission of a message, as expression of one’s own consciousness, as correspondent to a predefined meaning.

The experimental use of telecommunications by artists points to a new set of cultural problems and to a new art. How to describe, for example, the encounter now possible between two or more people in the space of the image in a videophone call? If two people can talk at the same time on the phone, if their voices can meet and overlap, what shall we say about the new experience of telemessaging in the reciprocal space of the image? What is the fate of all the telecommunication models (40) that don’t account for the multi-party interwoven fabric of planetary networks? After minimal and conceptual art, does it suffice to return to the decorative elements of parody and pastiche in painting? And what of the hybridization of media, which now compress maximum information-processing capabilities in minimum space? How will we deal with the new hypermedia that unite in one apparatus—telephone, television, answering machine, video disk, sound recorder, computer, fax/e-mail, videophone, word processing, and much more? How can there be a receiver or a transmitter as positive values if it is only in the connecting act, if it is only in the crisscrossings of telephonic exchanges, that such positions temporarily constitute themselves? Contemporary artists must dare to work with the material and immaterial means of our time and address the pervasive influence of new technologies in every aspect of our lives, even if that implies that they interact from afar and remain out of sight, at-a-distance from the art market and its accomplices. I quote Derrida (41), now in conclusive mode: One never sees a new art, one thinks one sees it; but a “new art,” as people say a little loosely, may be recognized by the fact that it is not recognized, one would say that it cannot be seen because one lacks not only a ready discourse which organizes the experience of this art itself and is working even on our optical apparatus, our most elementary vision. And yet, if this “new art” arises, it is because within the vague terrain of the implicit, something is already enveloped—and developing.

35 For a complete list, see Art Com, Number 40, Vol. 10, August 1990.