

NET PIONEERS 1.0

**CONTEXTUALIZING
EARLY NET-BASED ART**

EDITED BY
DIETER DANIELS &
GUNTHER REISINGER

Early net-based art (also known as Internet art, net art, net.art or webbased art) is presented in this book as evidence of a pivotal moment in digital culture. As document of a paradigm shift in media society in general, its importance goes far beyond art history. Yet the framework of art history alone can provide the basis for understanding the context, ideas, and concepts behind the works. They were created in response to a specific setting in the art world of the early 1990s. A historical view must therefore maintain this context, although the works are also significant in that they simultaneously testify to the development of the socio-technical media:

- Theory of the Avantgarde in the Age of the Internet
- Contextualisation of net-based Art
- Digital Source Criticism and Archive-Theory
- Methodological Analysis.

Contributions by Anna Bentkowska-Kafel, Dieter Daniels, Wolfgang Ernst, Verena Kuni, Barbara London, Christiane Paul, Gunther Reisinger, Marc Ries, Robert Sakrowski and Julian Stallabrass.



Dieter Daniels and Gunther Reisinger (Eds.)

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Contextualizing Early Net-Based Art

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INTRODUCTION

Dieter Daniels / Gunther Reisinger

*Net art is seen as an archaeology of the future, drawing on the past (especially of modernism) and producing a complex interaction of unrealized past potential and Utopian futures...*⁰¹ (Julian Stallabrass)

This is a book about media art history, and against that background it takes a new, interdisciplinary look at the historical, social, and economic dynamics of our contemporary, networked society.

Giving a potted history of Net-based art may seem to present no difficulty: The hype around Net-based art began in the early 1990s, before the Internet had become a commodity. It developed in skeptical parallel to the rise and decline of the new economy. In 1997, documenta X featured Net art. Around the same time, major museums in the US started online art commissions or virtual showcases.⁰² The first (and last) retrospective exhibition, “netcondition,” was held in 1999.⁰³ Several books published in the first years of the new millennium give overviews of the practice and theory of this art.⁰⁴ But since then, this particular chapter of art history appears to have closed. The final indication that Net-based art was not to become another genre in the contemporary art canon was perhaps the discontinuance of the “Net vision” category in the Prix Ars Electronica 2007.⁰⁵

01 Julian Stallabrass, *Internet Art: The Online Clash of Culture and Commerce* (London: Tate Publishing, 2003), 48.

02 See the text by Christiane Paul in this volume.

03 The exhibition “net_condition” was a distributed exhibition in Graz, Barcelona, Tokyo, and Karlsruhe. See *net_condition: art and global media*, ed. Timothy Druckrey and Peter Weibel (Cambridge, MA: MIT Press, 2001).

04 e.g. Julian Stallabrass, see n. 1; Rachel Greene, *Internet Art* (London: Thames & Hudson, 2004); Tilman Baumgärtel, *[net.art]: Materialien zur Netzkunst* (Nürnberg: Verlag für Moderne Kunst, 1999), and *[net.art 2.0]: Neue Materialien zur Netzkunst* (Nürnberg: Verlag für Moderne Kunst, 2001).

But why does this chapter of art history appear to end so suddenly? Is it that the idea of Net-based art (also known as Internet art, Net art, Net.art, and Web-based art) involving itself in a revolutionary spirit in a networked society failed? One might equally well argue that it was far too successful simply to become another media-art genre. Looking today at the social, aesthetic, and conceptual approaches of the early 1990s presented in this book, it is clear that most of them have in fact come true, if in ways other than intended.

They materialized, but without establishing a new art genre, and they resisted the typical process of commodification met with in art institutions. What happened instead was that some of the initial ideas took shape in everyday socio-technological living conditions. The two major utopias of the modernist avant-garde of the 1920s and the 1960s are that art anticipates the future and that art transforms, or is transformed, into life. The history of Net-based art would seem to indicate that it fulfilled both of these utopias and, as an artistic exercise confined to the art world, rendered itself obsolete.

Early Net-based art, however, is significant mostly from the viewpoint of the history of ideas. For the most part, the figures and artworks of the time have been eclipsed. Current public awareness does not extend to the “Net pioneers” themselves, who entered neither the narrative of an emerging network society nor the canon of art history. Not just fame is at stake here, but also the material (and digital) evidence of one of the most exciting artistic phenomena of the final decade of the twentieth century. Even if future art historians change their minds and, as with Dada or Marcel Duchamp, decide

05 The definition-shifts in the Prix Ars Electronica category of Net-based art are a short history in their own right: 1995–1996 World WideWeb, 1997–2000.net, 2001–2003 Net Vision / Net Excellence, 2004–2006 Net Vision.

to rediscover this art fifty years after the event, there will not be much of it left. Neither museums, universities, libraries, nor media archives consider themselves responsible for or capable of caring for this part of the cultural digital heritage by archiving, documenting, or maintaining Net-based art and its contexts. The constantly changing online technology and socio-economic environment ensure that it is as difficult to develop a methodology of preservation as for all of digital art. That these early instances of Net-based art never entered the art market (and in fact successfully opposed it) is also partially responsible for the lack of research in the field: their apparent lack of monetary value does not argue for the necessity of these works' survival.

The historical importance of the early Net-based artworks presented here as evidence of a pivotal moment in digital culture, and of a paradigm shift in media society in general, goes far beyond art history. Yet the framework of art history alone can provide the basis for understanding the context, ideas, and concepts behind the works. They were created in response to a specific setting in the art world of the early 1990s. A historical view must therefore maintain this context, although the works are also significant in that they simultaneously testify to the development of the socio-technical media. The research approach developed at the Ludwig Boltzmann Institute Media.Art. Research over a period of three years has focused on developing a documentary archive and contextualization methodology, for which a range of case studies was selected. While this does not solve the problem of the survival of Net-based art, it does aspire to set an example and to instill a consciousness of the responsibility we owe these fragile and ephemeral "monuments" of our media society.

This book is thus a part of the art-historical research project titled "netpioneers 1.0." The essays published here are in part the result of a conference organized by the Ludwig Boltzmann Institute Media.Art.Research Linz on

the occasion of Ars Electronica 2007, and in part reflect new approaches that have since been developed. The contributions cover a wide variety of topics, ranging from art-scholarly methodological debate (Bentkowska-Kafel, Kuni); source-critical analysis (Reisinger); archiving, exhibition, and analytical practice (Ernst, London, Paul, Sakrowski) to media-philosophical aspects (Ries) and technical and artistic innovations (Daniels).

To begin with, the significance of art-based or media-critical Internet platforms (THE THING New York, THE THING Vienna and public netbase) that were instrumental in facilitating the establishment and media-immanent discussion of early Net artworks are addressed. In line with the genuinely archival character of these frameworks, a predominantly source-based scientific approach was chosen. For research purposes and for the textual contributions, both primary and secondary sources were first made digitally accessible, thus facilitating an overview of hitherto scattered archival materials.

METHODOLOGICAL ANALYSIS

Seeing that works of art “only ever answer those questions that we ask them,”⁰⁶ a first step in a methodologically valid approach to Net art undertaken within art history as a discipline will consist in putting the right questions both to the art phenomenon and to the archival and museum contexts. As a draft and discussion of a methodological hypothesis, the essays here primarily address questions to the analytical method and the art itself. Artworks and source-based context are on a par in the analytical process.

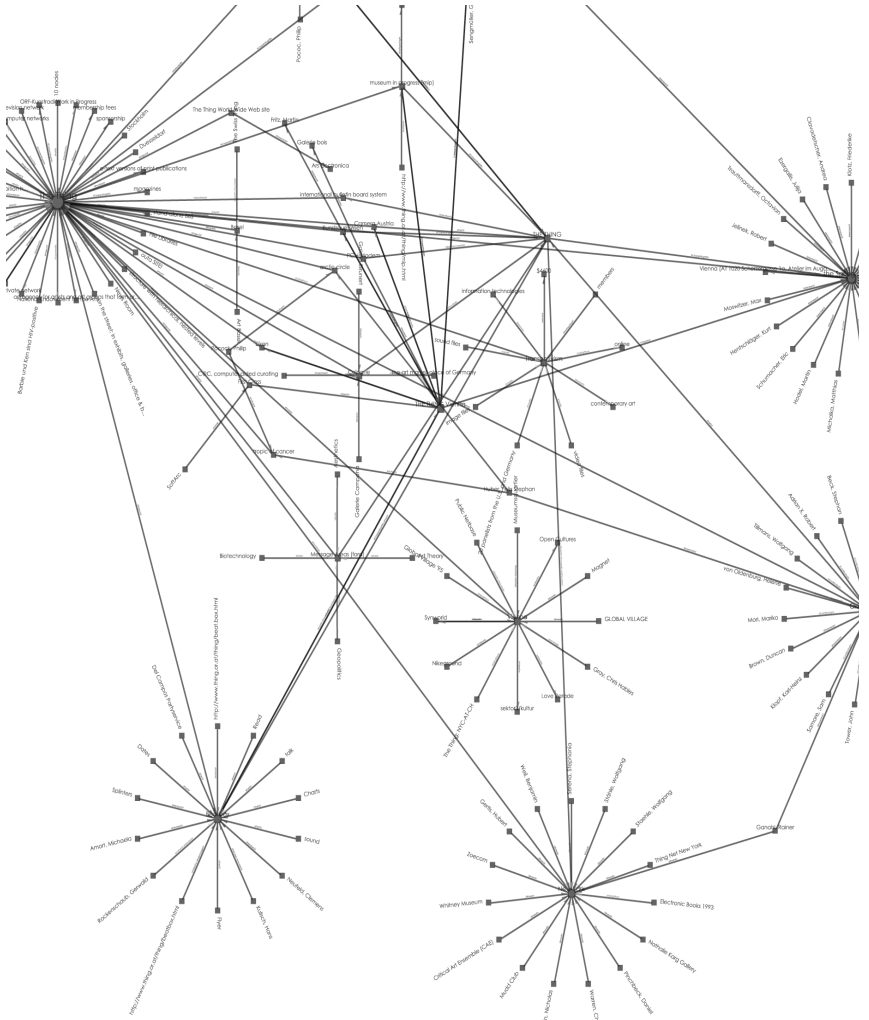
06 Hans Belting, *Das Ende der Kunstgeschichte: Eine Revision nach zehn Jahren* (Munich: C. H. Beck, 1995), 150.

The Ludwig Boltzmann Institute Media.Art.Research “netpioneers 1.0” research project brings together source-critical methodological issues of art scholarship and the media-art category of Net art as a genre-specific case study. Unlike digitized born-analog art, Net-based art forms never depart genealogically from their production medium during archiving, documentation, and contextualization scenarios. They are thus hybrids, uniting work, archiving, and re-presentation in the work’s own specific medium (Internet). On the basis of this hypothesis of the media unity of work, copy, and source in Net-based art, the options for art-historically approaching performative, ephemeral, digital art forms such as Net art are discussed.

Building on this theoretical position, the netpioneers 1.0 research project seeks to stimulate the internationally and inter-institutionally sought-after development and synchronization of work-adequate metadata structures (archiving, description, and re-presentation) of Net-based art and of the similarly outstanding reconfiguration of art-historical concepts pertaining to innovative media and Net-based art in particular.⁰⁷ The interdisciplinary combination of methods here (art scholarship, museology, informatics) aims to serve as paradigm for the discussion of new patterns of analysis and description for current media art forms and their digital sources.

As praxis-oriented counterpart to the theoretical issues, early Net art and Net activities (in part already offline) have been completely reconstructed, re-presented online, and historically contextualized for art-scholarly research purposes. The use of semantic indexing by means of computer markup structures (XML, TEI) facilitates a scientific network visualization of all source materials.

07 See the text by Gunther Reisinger in this volume.



Data visualization, Dietmar Offenhuber for netpioneers 1.0, Linz 2009

The practical aspects of the research project mirror a three-stage scheme: the present book as international, interdisciplinary contextualization; the indexed, source pool of the example case studies⁰⁸ and the development of work- and source-adequate exhibition displays for historically processed Net art in museum spatial situations.⁰⁹ Netpioneers 1.0 is thus to be understood as applied basic research: restoration and re-presentation of Net-based art, digital source analysis (indexing and data visualization), and, consequently, the adaptation of art-scholarly methods.

The choice of a source-based bottom-up strategy is, on the one hand, in line with the desired adaptation of art-scholarly methodology; on the other, it facilitates terminologically approaching the media-art phenomena of Net art and its environment in as objective a manner as possible. This also accords with the choice of the methodological tool of visualization within the online source analysis: a “sensualizing” of quantities and qualities of a particular data pool that, at the outset, cannot be perceived by the senses.¹⁰ By its means, a multilevel network of relations and clusters within the source pool are made visible.¹¹

CONTRIBUTIONS

In his essay, Dieter Daniels addresses the early formative phases of networked art forms. Referring to the twentieth-century avant-garde movements, Daniels explores the possibilities of a “last avant-garde” in the 1990s from media-technical and art-historical perspectives. Like Daniels, Marc Ries

08 See netpioneers.info.

09 See the text by Robert Sakrowski in this volume.

10 An approach Hans H. Diebner has described as “performative science.” See Hans Diebner, *Performative Science and Beyond: Involving the Process in Research* (Vienna/New York: Springer, 2006).

11 See netpioneers.info

also investigates Net-based projects originating in part before the First World War and, drawing on Jean-Luc Nancy's theses, develops a history of the "self-imparting partaking" made possible by new communication structures. Concluding his thoughts on "pure sociality" in Net art, in the sense of a self-enhancing perception of the other, Ries, not unlike Julian Stallabrass and Dieter Daniels, also discerns forms of commodification.

Wolfgang Ernst addresses the classical concept of the archive, calling for the development of a systematically adapted art and archival language for digitally networked artworks and their archival structures. Net art archives should meaningfully link up information nodes, generating and presenting relations rather than objects. Hence Ernst also speaks of "archive art" and sees in the Internet a constitutively higher-order archival structure. As such it can offer no ultimate knowledge, but only a script in progress, an agglomeration rather than a collection. In connection with the problem of software documentation, Ernst describes the archiving of ephemeral media art as an additional challenge for the new archives as "cybernetic being[s] gifted with feedback."¹²

Christiane Paul's contribution addresses the question of whether museums, research institutes, and art history are in a position to archive and contextualize fleeting and genuinely transient art forms. With reference to significant ventures in the field and to institutional problems past and present, Paul presents an exemplary approach from the project "Forging the Future." Barbara London, drawing on her experience as curator at the Museum of Modern Art New York, also looks at the history of how museums and art institutions have handled the phenomenon of media art, including early Net art.

¹² See the text by Wolfgang Ernst in this volume, 99.

As a methodological critique, if from different standpoints, Anna Bentkowska-Kafel, Verena Kuni, and Gunther Reisinger formulate the difficulties facing any work-adequate involvement with Net art within a discipline of art history, tied down to non-performative art forms and hence to methods that in the broadest sense are traditional. While Kuni approaches the issues from an explicitly subjective point of view, Bentkowska-Kafel, not unlike Paul, offers an institutional overview, but in her case the focus is on applied art-historical methodology. Reisinger looks at the currently still-problematic methodological issues in handling the *digital* sources of a *digital* art form, and drafts a necessarily new approach to art-scholarly source work for genuinely digital-born Net art. Thematically close to Verena Kuni, and with reference to the similarly problematic history of photography's development as an art, Julian Stallabrass also addresses the difficulty of making the phenomenon of Net art accessible to traditional art history.

Finally, in an essay that shares themes with both Paul and London, Robert Sakrowski draws on research work done at the Ludwig Boltzmann Institute to look critically at the problems of exhibiting digital, Net-based, ephemeral art and to discuss potential practical solutions.

The overriding goal of the book is to provide an up-to-date, interdisciplinary view of the artistic phenomenon of early Net art that focuses on art-scholarly methodology. The aim is not to write a chronologically based history of Net art, but to stimulate discussion of different ways of approaching work-adequate archiving, re-presentation, and contextualization structures.

PART 1: HISTORICAL SETTINGS

REVERSE ENGINEERING MODERNISM WITH THE LAST AVANT-GARDE

Dieter Daniels

The concept of an avantgarde, disavowed by postmodern theory, is actually more relevant today than ever before, but it has nothing to do with aesthetics. Only social situations, not artworks, qualify as avantgarde. We need access to alternative experience, not merely new ideas, for we know more about our being than we have being for what we know. Today only metadesign satisfies the original criteria for avantgarde practice. Gene Youngblood⁰¹

THE LAST AVANT-GARDE?

The case studies analyzed, documented, and contextualized in the Net Pioneers research project provide a representative cross-section of the creation of Net-based art between 1992 and 1997.⁰² An entire typology of these new art forms developed in just five years. This astonishing dynamic emerged from the particularly intense meeting and interaction of art history and media history: a rapidly developing, international art found itself racing a fast-changing techno-sociological context.

As the 1990s drew on, a new browser interface known as the World Wide Web transformed the Internet from a non-public, mostly academic and military medium (with a gray area comprised of nerds and hackers) into a

01 Gene Youngblood, "Metadesign: Towards a Postmodernism of Reconstruction," abstract for a lecture at Ars Electronica, 1986, http://90.146.8.18/en/archives/festival_archive/festival_catalogs/festival_artikel.asp?iProjectID=9210. All Internet references in this volume last accessed on November 30, 2009.

02 Note on the terminology: "Net-based art forms" is used here as an inclusive term, but in the following, I will differentiate between "frameworks" and "Net art."

mass medium accessible to all, a phenomenon lending weight to the “Internet truism that one Internet year was equal to seven years in the ‘real world.’”⁰³ In other words, these five years in which the art projects examined by Net Pioneers were created would be equivalent to thirty-five years of standard time—much longer than the active lifetimes of most avant-garde movements in history!

Thus the short period in which “Net art avant-garde” was ahead of its time compared to mainstream media should be recognized as such, not only conceptually and in terms of technology, but also within the larger history of media art. The frequently argued thesis claiming that the mid-1990s Internet boom stimulated the creation of Net-based art must be revised.⁰⁴ Artists had already discovered a fascination for electronic networks and telecommunications in the early 1980s, and began using them long before the power of these technologies to change society had become common knowledge.⁰⁵ It is also from the field of media art that the earliest theoretical models for the future of telecommunications and networking—to which the (otherwise all too frivolously used) adjective “visionary” can be unconditionally applied—emerged. A notable example of this was Nam June

03 See Tilman Baumgärtel, *net.art: Materialien zur Netzkunst* (Nürnberg: Verlag für Moderne Kunst, 1999), 166.

04 With this in mind, compare to the jacket blurb for Rachel Green’s *Internet Art* (London: Thames & Hudson, 2004): “When the Internet emerged as a mass global communication network in the mid-1990s, artists immediately recognized the exciting possibilities for creative innovation that came with it.”

05 For more on telecommunications art in the 1980s, see *Art + Telecommunication*, ed. Heidi Grundmann (Vancouver: Western Front/Vienna: BLIX, 1984). See also *At a Distance: Precursors to Art and Activism on the Internet*, ed. Annmarie Chandler and Norie Neumark (Cambridge, MA: MIT Press, 2005).

Paik's study "Media Planning for the Postindustrial Society—The 21st Century is Now Only 26 Years Away," a 1974 Rockefeller Foundation commission in which Paik was already advocating an "electronic super-highway."⁰⁶ Twenty years later, during the 1992 presidential campaign, Bill Clinton and Al Gore made the "data super-highway" a centerpiece of their program to revitalize the United States's economy. This prompted Paik to ironically comment in 1993, "Bill Clinton stole my idea."⁰⁷ Equally prescient is Gene Youngblood's concept of "metadesign," which he presented at the 1986 Ars Electronica. Metadesign was inspired by the telecommunications projects created in tandem by artists Kit Galloway and Sherrie Rabinowitz, most notably their 1984 project *Electronic Café*. Youngblood's theses see far beyond the practices of his time. His theory anticipating the emergence of art out of networked, autonomous "reality communities" reads like a blueprint for the Net-based art of the 1990s.⁰⁸

06 Reprinted in *Media Art Interaction: The 1980s and 1990s in Germany*, ed. Rudolf Frieeling and Dieter Daniels (Vienna/New York: Springer, 2000), 239–242.

07 *Nam June Paik: Eine DATABASE*, ed. Klaus Bussmann and Florian Matzner (Stuttgart: Hatje Cantz, 1993), 110.

08 Youngblood had been developing the concept of "reality communities" since the late 1970s, and later linked it to the concept of metadesign: "A communications revolution is not about technology; it's about possible relations among people. It implies an inversion of existing social relations, whereby today's hierarchical mass culture would disperse into autonomous self-constituting 'reality communities'—social groups of politically significant magnitude, defined not by geography but by consciousness, ideology, and desire... The continuous simulation of alternative realities within autonomous reality-communities would constitute a New Renaissance in which the artist-designer might address the profound social and political challenges of our time." Gene Youngblood, "A Medium Matures: Video and the Cinematic Enterprise," in *The Second Link: Viewpoints on Video in the Eighties* (Alberta: Walter Phillips Gallery, Banf Centre School of Fine Arts, 1983), 10.

Consciously opposing the postmodern zeitgeist of the 1980s, Youngblood insisted on the possibility of an avant-garde. Along with some revolutionary rhetoric, he summarized the crucial social dimension of the electronic networks: “The only relevant strategy now is metadesign—the creation of context rather than content.”⁰⁹ With this, he delivered the motto for the early Net art of the 1990s. A counterpart to this might be Joseph Beuys’ notion of “social sculpture.”¹⁰ While Youngblood declared media technology the “only new frontier,” Beuys relied on direct human interaction to change existing social structures and to refer back to nature and ecology. These two visions are prototypical of the American and European concepts of the relationship between technology and society—different in origin, yet similar in intention—that constitute Net-based art’s parental lineage. The Net

09 Youngblood 1986 (see note 1). See also an expanded version in German: Gene Youngblood, “Meta-design, Die neue Allianz und die Avantgarde,” *Kunstforum International*, 98 (Jan/Feb 1989): 76–94. I would like to thank Helmut Mark for the reference to this text, which Mark regards as an important inspiration for his work with THE THING.

10 Beuys’ concept of “social sculpture” is a reference for Wolfgang Staehle, initiator of THE THING, and Mark Tribe, founder of the Rhizome List, as well as others. Wolfgang Staehle: “Beuys was interested in social sculpture, an artistic production that comprises a group or a community. THE THING is this kind of sculpture: it realizes Beuys’s idea of direct democracy, of a political community as a social structure. At the same time, it is an expansion of the concept of art.” (In: Vera Graf, “Kunst im Informationszeitalter,” *Süddeutsche Zeitung*, March 22, 1994, 11). Mark Tribe: “I do think of Rhizome as social sculpture. As such, it could be seen as an artwork. This does not mean that I see it as one of my art projects.” (Tribe quoted in Josephine Bosma, “Constructing Media Spaces,” 2004, http://www.medienkunstnetz.de/themes/public_sphere_s/media_spaces/16/). In contrast, here is Helmut Mark, initiator of THE THING Vienna: “Unlike Stähle I did not regard THE THING Vienna as a ‘social sculpture,’ but rather, as a ‘communications sculpture.’ Naturally, I was greatly influenced by Beuys, but I was also influenced by the performance art movement of the late 1970s and early ‘80s.” (E-mail to the author, March 3, 2009).

Pioneers project focus is therefore not so much restoring and preserving individual artworks, but their contextualization with on- and offline sources in order to grasp the significance of Net-based art as a social, artistic, and technological document.

Arguments found in media history research provide the first cornerstone of support for the avant-garde status of the case studies examined in the Net Pioneers. THE THING was created in the early 1990s, before the Internet was available to the normal user, as an international network based on its own BBS (bulletin board system) that was initially not linked to the Internet.¹¹ It was, however, not until the mid-1990s—with the breakthrough of the World Wide Web and the subsequent public interest in all of the new Internet-related phenomena—that interest in these art forms expanded beyond a small circle of insiders. A symptom of this was the tagline for the theme issue of *Art in America*: “Future art historians will mark the 1994–95 season as the year the art world went online.”¹² While this shows the Internet’s designation as a medium, the attempt to establish “Internet Art” as the next new genre to be defined only by its technology (after “Video Art”) appears to have failed—at least from today’s perspective. It is, however, the intensity of this interaction between artistic, technological, social, and economic developments

11 THE THING New York can be seen as a phenomenon that bridged the transition between telecommunications actions and Net-based art. Founder Wolfgang Staehle planned a temporary BBS project which, however, stabilized and, bit by bit, became linked to the Internet. Around 1993 it became possible to send e-mail to the Internet through the BBS, and several Thing nodes were present on the Web, starting in the mid-1990s.

12 Robert Atkins, “The Art World & I Go On Line,” *Art in America* (December 1995): 58. Some of the projects presented in the magazine were still based on bulletin board systems, but most of them were already on the Web, or else in a transition phase, which shows the parallel state of both systems around 1995.

from 1992 to 1997 that make this highly condensed development historically significant for the research in the overlapping areas of media and art. Net-based art formed a microcosm that anticipated or sometimes even triggered parts of the paradigm shifts involved in the development of a networked society at large.¹³

Youngblood's thesis that, in the era of telecommunications, a new avant-garde is only possible as a "social situation" can be reformulated from a contemporary perspective: Net-based art is the "last avant-garde" movement at this point in time, both in terms of the way it sees itself and with regard to its historical context. So rather than propose theories that rush ahead of practice, the following retrospective analysis attempts to set the framework for a comparison of the artistic development and the techno-social context. This also involves an essential distinction from mail art, a form frequently mentioned as a predecessor of Net-based art, since mail art involves an institutionalized, stable media system whose technology has remained relatively unchanged. That said, as traditional mail has largely been replaced by e-mail, so-called real mail has come to be associated with a certain nostalgia.

13 Key concepts for several early Web projects were at first designed independently of the Internet, but found their ideal medium in the Web, and are, apparently, no longer conceivable without it. This is true, for instance, of Ingo Günther, *Refugee Republic* and Antoni Muntadas, *The File Room* (author's conversations with the artists, 1994–95). Also, "typical" Net artists such as Heath Bunting began working with media such as voice mail and the BBS, before the introduction of the Web. (See Rachel Green, *Internet Art* [London: Thames & Hudson, 2004], 35, and Josephine Bosma, "Constructing Media Spaces," 2004, http://www.medienkunstnetz.de/themes/public_sphere_s/media_spaces/scroll/#ref21.)

NET-BASED ART BEFORE THE WWW BOOM

In the 1960s and 1970s, art movements such as Fluxus, mail art, and conceptual art began considering the ways that art could manifest itself in communications processes, as well as within network structures.¹⁴ After 1980, artists began incorporating so-called electronic space into their practice, using (and abusing) various new and old telecommunications media.¹⁵ A 1982 action called *Die Welt in 24 Stunden* (The World in 24 Hours), for example, utilized a network of telephone, fax, slow-scan TV, and the ARTEX on-line conference system. Initiator Robert Adrian X summarized the purpose of the project in this way: “The project tries to provide individual access to telecommunications media, and to develop strategies for using them in art. However, the artistic dimension of the whole project does not consist of creating special objects—artworks (via fax, for instance)—but in producing relationships through dialogue, meaning, and special relationships among the participants, who ‘produce’ communicative events, not works of art.”¹⁶ The telecommunications projects of the 1980s were ephemeral actions aimed primarily at the participants’ horizons of experience, and as such remained relatively imperceptible to a non-participating audience of spectators. In this sense, they might be compared to Allan Kaprow’s original concept for Happenings, which were not intended as spectacles but were meant to manifest themselves in the personal experiences of the participants involved.

14 See *Vom Verschwinden der Ferne: Telekommunikation und Kunst*, ed. Edith Decker and Peter Weibel (Cologne: DuMont, 1990), and the exhibition “Before the Internet: Networks and Art,” Western Front Exhibitions, curated by Peter Courtemanche and Candice Hopkins, February 3–March 10, 2007.

15 See *Art + Telecommunication*, ed. Heidi Grundmann (Vancouver: Western Front; Vienna: BLIX, 1984).

16 Robert Adrian X, in the publication accompanying the *On Line* exhibition, Graz 1993.

Heidi Grundmann remarked of Roy Ascott's 1983 collaborative writing piece, *La Plissure du Texte* (The Pleating of Text—another ARTEX-based project): “[it] once again made clear how the character of the work of art is changed in electronic space: not one of the participants—not even the initiator—was able to keep track of all the ramifications of this planetary fairytale, which was told over a period of ten days and nights, since it could only be documented in selected, random parts. *La Plissure du Texte* has to remain a legend. Only those involved could possibly report on it, however, and only then, on those parts which they themselves experienced. And no art historian will ever succeed in finding all those involved and then interviewing everyone about their experiences.”¹⁷ These processual, performative telecommunications projects constitute an important prehistory for early Net-based art as documented and contextualized by the Net Pioneers project, in which we consider not only the testing of certain technologies, but also the genesis of an artistic consciousness and the formation of related interest groups. This was particularly true in Austria, where such groups resulted in some of the most important artistic activities of the 1980s and 1990s.

As it is, the artistic “network avant-garde” existed in three phases:

- In the 1980s, performative, temporary experiments and interventions in “foreign” (meaning already existing) networks using (and abusing) old and new telecommunication media.
- In the early 1990s artists built, designed, and operated their own permanent structures for simultaneously social, discursive, and technical networks. Even more important than the technological innovation involved was the integration of these networks into the participants’

¹⁷ Heidi Grundmann, “Doubts and other Virtues: Some Aspects of Telecommunication Art in Austria,” in *On Line: Kunst im Netz*, ed. Helga Konrad (Graz: Steirische Kulturinitiative, 1993), 43.



Screenshot of THE THING Vienna BBS, 1994

everyday lives and the communities that emerged within the projects, as well as an international exchange among the projects.

- In 1994–95, projects started on or migrated to the Web, where they reached a larger audience and were made permanently accessible to the public via URLs.

Bridging the first and second levels were innovative approaches such as ARTEX, or Carl Löffler's ACEN, a project that began in San Francisco in 1986 and that was based at The WELL, the first commercial BBS online community system.¹⁸ Both were sub-systems in larger, corporate contexts, representing a kind of artistic niche in the system. Artists Rena Tanges and padeluun built the Fidonet-based Bionic Mailbox in Bielefeld, Germany

in 1987, but the project's intentions were more socio-cultural than artistic.¹⁹ Chronologically and conceptually, THE THING, which began in 1991 as a BBS, was directly linked to these developments of the 1980s.²⁰ Around 1995, individual Thing nodes migrated online and thus became part of the transition from the second to the third level. On the other hand, Public Netbase, Internationale Stadt Berlin, and etoy started working directly in the Internet and the Web in the mid-1990s. Still, the early 1990s projects, referred to as "frameworks" in the following, are primarily characterized not by their technologies, but rather by a unique techno-social dynamic that, having reached a certain critical mass of participants, also had an effect on the outside world. These resulted in self-organized infrastructures that lasted several years.²¹

- 18** ARTEX (Artist's Electronic Exchange Network) is a simplified, more affordable version of the commercial software for the Computer Timesharing Network by I. P. Sharp Associates; from 1980 to 1991, it was used by thirty-five artists around the world. For more on this, see <http://alien.mur.at/rax/ARTEX/index.html>. For more on ACEN, see: Carl Loeffler, "Telecomputing und die digitale Kultur," *Kunstforum International*, no. 103, "Im Netz der Systeme," (Sept./Oct. 1989): 128–133; and Roy Ascott and Carl Eugene Loeffler, guest eds., "Connectivity: Art and Interactive Telecommunications," *Leonardo*, no. 24:2 (1991); and Seeta Gangadharan, "Mail Art: Networking Without Technology," *New Media & Society* 11, no. 1–2 (2009): 279–298.
- 19** Cf. "Rena Tangens," *On Line: Kunst im Netz*, ed. Helga Konrad (Graz: Steirische Kulturinitiative, 1993), 99–101.
- 20** According to Wolfgang Staehle, THE THING New York at first resembled 1980s telecommunications art, in that it was conceived as a temporary project that would enable a discourse to take place over a certain period of time: "In my mind, the project was set up to last for a couple of months..." (Wolfgang Staehle, interviewed by Nina Fuchs, Berlin, August 21, 2008).
- 21** A main reason was the larger number of home computers and modems, which made it possible for more people to participate. For more on the transition from the telecommunications projects of the 1980s to the Net-based art of the 1990s, see also Marc Ries, "Netzkunst: Kunst der Netze," in *Medienkulturen*, ed. Marc Ries (Vienna: Sonderzahl Verlag, 2002), 247–66.

THE THINGSM

Plug in by Modem:

BERLIN 30 6158733

DUESSELDORF 211 9913642

COLOGNE 221 7392450

FRANKFURT 69 231105

HAMBURG 40 29843297

NYC 212 431 6787

VIENNA 43 1 2121695

info@thing.nyc.ny.us

An internationally networked community of artists formed before the Internet became a medium with a mass audience; for its members, the Net's communicative and aesthetic potential became a part of private, everyday life for the first time, and new forms of discourse developed that could not exist outside of the network. Consequently, while these projects pre-figured concepts and substantiated ideas, their impact on society at large would not become evident for a few more years. In the early 1990s, the equally visionary, once seemingly contradictory concepts mentioned at the beginning of this essay—Joseph Beuys's interpersonal communication as "social sculpture" and Gene Youngblood's telecommunications as "metadesign"—translated into an artistic practice inspired by both.

The projects we refer to as frameworks here—for example THE THING (which began in New York in November 1991, with independent nodes in Cologne, Düsseldorf, Frankfurt, Hamburg, London, Stockholm, Basel, and Vienna from 1992–93 onward), or Public Netbase in Vienna, or Internationale Stadt Berlin (both begun in 1994)—emerged out of a kind of gray zone that existed before the Internet became available on a mass scale, beyond any state or commercial control. They were individual initiatives: most lacked any sort of subsidies and they had no legal status, unlike requirements for Web sites or domains today. They belonged to that "terra incognita"—previously known to the cultural public only through hearsay—called cyberspace. They were not, however, phantasms of a three-dimensional virtual reality, but rather a low-tech, language-based expansion of the world in which we live. A trio of factors distinguish them in their avant-garde status as it related to the surrounding technological, social, and artistic environments:

- Construction of an independent, partly self-designed technological infrastructure
- Formation of a self-organized, networked community, and the collective

- design and testing of a corresponding model of discourse
- Development of a form of art specific to the network, exploring the medium's potential in an experimental, self-reflective way

What is fascinating about this early phase (up to about 1995) is the close correlation between these three factors. It was not about intervening in an existing medium (as video art did with television), but rather it was about the simultaneous development and testing of a new medium and its mutual influence on technological, social, and aesthetic functions of electronic networks. By the mid-1980s, BBS technology was already being used for commercial and cultural projects (The WELL is one example) to form publicly accessible "virtual communities."²² With THE THING, the global potential of the BBS medium unfolded in the international discourse. Until then, such intense real-time discussions between the United States and Europe had been impossible.²³ There were no central operators or nodes for this decentralized, self-organized, non-commercial artistic community. The social network already in place in the international art scene delivered the basis for, and was later expanded by, this electronic network. Most members had known each other personally from the beginning, but soon widened their circle of acquaintances online as they formed (among other things) topical newsgroups and in some cases created multiple online identities for the discussions. THE THING did not spread as a technology package or a franchise, but simply because people were fascinated by the concept:

²² For more on the history of The Well, see Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Chicago: University of Chicago Press, 2006).

²³ See the online symposium moderated by Jordan Crandall, "Transactivism" (1993), <http://old.thing.net/html/trans.html>, and the publication of a discussion among participants from New York, Hamburg, and Cologne on the way THE THING defined itself. ("Die Wahrheit existiert, aber sie ist beweglich," *Spuren: Zeitschrift für Kunst und Gesellschaft*, no. 41 (April 1993): 22–30.

independent nodes operating within an international BBS network, each of which developed its own individual character both in terms of content and technical solution. This development took place in an autonomous situation as unusual for the media as it was for the art world at the time; the frameworks were not only independent of any art institution, but also existed outside of state or commercial media control.

This degree of autonomy is rare in cultural production and is an important part of these projects' self-concepts, which were also intimately tied to their abilities to claim avant-garde status. Evidence of this can be found in Youngblood's statements from a decade earlier, when he declared autonomous "reality communities" the only remaining options for a new avant-garde. The same is true of Hakim Bey's *Temporary Autonomous Zone*, another oft-cited reference published the same year that THE THING New York was founded.²⁴

24 Hakim Bey differentiated between the official "net" and the "unofficial or counter-net," which he was still calling the "web" in 1991, regarding it as a possible form of "temporary autonomous zone." He explicitly referred to the BBS forums, complaining that they had only been used by hackers and amateurs for "chitchat and techie-talk" up until then, but that they had a much greater potential. See: Hakim Bey, "T.A.Z. The Temporary Autonomous Zone, Ontological Anarchy, Poetic Terrorism, Autonomedia," (New York, 1991), <http://www.hermetic.com/bey/taz3.html#labelTheNetAndTheWeb>. It was precisely this situation with the BBS forums that motivated Wolfgang Staehle to found THE THING in 1991, which he also described as a possible form of T. A. Z. "I ran across a modem, and although I didn't know what it was, I just bought this modem spontaneously. And hooked it up and dialed into some local bulletin board systems and was very much amazed how friendly people were, because I didn't know what was going on, how to do it; and I always got a very nice answer, and people were very open to sharing information, and I found this rather refreshing." (Wolfgang Staehle, interviewed by Dieter Daniels, Berlin, January 5, 2009.) Patrick Lichty describes the non-institutional transmission of Net art in this sense as "cultural autonomous zones." See Patrick Lichty, "Reconfiguring Curation," in *New Media in the White Cube and Beyond*, ed. Christiane Paul (Berkeley: University of California Press, 2008), 183.

The histories of the two terms—“avant-garde” and “autonomy”—are closely linked. Both have their origins in non-art contexts (military and political, respectively), and because they can mean a number of different things, both are often misunderstood or used incorrectly. It is therefore crucial to clarify the type of autonomy these early networking projects sought to achieve. First and foremost, they sought institutional—and thus ultimately political—autonomy, or the project’s ability to determine its own organization and to exist independent of subventions. The second priority—technological and infrastructural autonomy—arose out of the first. The BBS successfully satisfied both of these requirements, at least in the early phase, before the frameworks migrated to the Web and were forced to assume legal status and to observe technical standards and protocols. It soon became clear, however, that community contributions alone could not financially sustain the projects in the long run. This reinforces that which Bey would call the temporary (Pierre Bourdieu would call it relative) nature of this particular mix of sociocultural, political, artistic, and technological autonomies in the field of cultural production. This third kind of autonomy—unstable and ephemeral—contradicts the ideal put forth in the history of modernism: that of an absolute, individualist, artistic-aesthetic autonomy, a bid for eternity made the leitmotiv of modern art by Charles Baudelaire, Clement Greenberg, and the art-market boom of the 1980s. It was precisely this kind of “art for art’s sake” autonomy that the early Net-based art sought to overthrow or discredit in favor of a supra-individual, discursive, processual, networked, collective art that, like the notions of “metadesign” or “social sculpture,” was not representable in the form of a simple, stable “work of art.”

The linking of technological progress, social change, and artistic innovation hearkens back to an avant-garde dream from the early twentieth century. The “absolute film” and radio art pioneers of the 1920s and video artists in the 1960s continued to develop existing media technology to their own

ends, designing utopias for the unrestricted artistic exploitation of these channels. Their work, however, was always subject to the realities of an existing media system whose technological, economic, and distribution parameters were beyond their control. While this kind of media art is limited to alternatives inside the niches of the system, early Net-based art sought to explore the limitless potential of an entirely new, still unformatted and unestablished medium—one whose future had yet to be prescribed or coded in commercial, political, or cultural terms. It is also this avant-garde dream, or the possibility of it coming true for the first time, that fed the strong fascination these artists felt for the Net—a fascination so seductive that they periodically abandoned all other art activities. For the rest of the art world, it was as if they had vanished into cyberspace.²⁵ With this disappearance from the art context, the frameworks assumed a new role in the media context and began acting as service providers. By the mid-1990s, the projects' experimental, artistic, and utopian character had settled into professionalism, suggesting that their relative, temporary autonomy always referred, if *ex negativo*, to the modernist, individualist, autonomous work of art. The consequence for a next generation of Net-artists was a partial return to the notion of an "artwork," and thus to "Net art" in the narrower sense, a phenomenon examined later in this essay.

25 Wolfgang Staehle, Helmut Mark, Konrad Becker, jodi.org, and Ingo Günther had successful artistic careers with videos and installations before they started their Net projects. According to Staehle, whose video works have once again found acclaim, the period in which he was working on THE THING remains a black hole in his official career as an artist: "I didn't do any exhibitions for ten years. And before that, I was a typical gallery artist; then for ten years, I wasn't, and for some reason, the dealers were mad at me: 'Oh, Staehle is lost out there in cyberspace.'" (Wolfgang Staehle, interviewed by Nina Fuchs, Berlin, August 21, 2008).

The problem is not a new one: the historic avant-garde movements and neo-avant-gardists of the 1960s—from the earliest examples to Beuys—had always been characterized on one hand by the conflict between the absolute artistic autonomy they continued to demand, and on the other hand by their aim of transposing art into life, an objective that could only be achieved through a relativization of this very autonomy. Net-based art has also been unable to solve this conflict.

Around 1997, Net-based art reached a dead end or turning point. Though its presentation at documenta X and Hybrid Workspace brought the phenomenon of Net art to the art world's attention, the era of the media-specific avant-garde faded as more and more commercial and cultural producers poured into the World Wide Web: "It's getting crowded," Marc Ries wrote in 1997.²⁶ Thus, the three factors mentioned as being responsible for Net-based avant-garde's leading edge were soon overtaken as:

- The technological infrastructure for access to the Net was commodified by commercial providers in the telecommunications industry
- Testing of a networking discourse and social model became part of private life and the working environment, thereby losing its voluntary character outside of self-determined communities
- In the art world, "offline" artworks successfully adopted several conceptual models of networking, participation, and interaction (so-called relational aesthetics is one example)²⁷

Rather than detract from the frameworks avant-garde status or throw it in question, these developments actually reinforce it as having clearly an-

²⁶ Marc Ries, in an assessment of the year 1997: "Netzkunst. Kunst der Netze," in *Medienkulturen*, ed. Marc Ries (Vienna: Sonderzahl Verlag, 2002), 261.

anticipated what was to come. In a techno-social context that included discursive, aesthetic, and political elements, the experiments and models propounded by these frameworks anticipated the potential of networking. Art as anticipation has been a leitmotif of the avant-garde movements throughout the twentieth century, and has been subject to controversial discussion since the neo-avant-gardes of the 1960s: for the most part, art does not translate into life as a result of what avant-garde artists actually *do*. Instead, these avant-garde movements delivered a premonition of social processes and possibilities later determined by political and economic factors. In this case, the avant-garde can only be recognized as having anticipated later developments after the fact, and cannot be seen as having caused these changes directly. Even still, differentiating between pure anticipation or prescience, an inspiring role model, and direct cause-and-effect can be difficult since it is impossible to gauge or even to prove which transfers might have occurred.

Thus, interestingly enough, this avant-garde principle of anticipation became a real driving force behind the New Economy of the late 1990s, a commercial but essentially utopian economic bubble that imploded as soon as

27 Nicolas Bourriaud's concept of relational aesthetics uses Internet-influenced terminology ("user-friendliness," "interactivity," "DIY" or "do-it-yourself") for the communicative, participatory, and service-oriented approaches of the 1990s operating within the classic context of art or the public space. He ignores, however, Net-based art and the potential for social and political activism on the Internet, which would go beyond the context of art, as Julian Stallabrass remarks: "(W)hat Bourriaud describes is merely another art-world assimilation of the moribund or the junked, the representation as aesthetics of what was once social interaction, political discourse and even ordinary human relations." See: Nicolas Bourriaud, *Relational Aesthetics* (Paris: les presse du reel, 2002), and Julian Stallabrass, "The Aesthetics of Net.Art," *Qui Parle* 14, no. 1 (Fall / Winter 2003/04): 49–72.

profit expectations turned sour. Even more drastic is the way in which Net-based art communities in the early 1990s anticipated developments in Web 2.0. In this sense, the framework projects stand for a last moment of opportunity for an avant-garde movement in the late twentieth century—one, however, that was quickly subsumed or sublated (in Hegel's double sense of the word) by the reality of digital mass culture through a techno-social development beyond the art context. This notion of "sublating" art into life has also emerged with every avant-garde movement since the early twentieth century.²⁸ Rather than translate art into life, Net-based art was overtaken, so to speak, by techno-social innovations taking place in the lives of those in the Net-based society. As a matter of fact, the dot-com bubble of the late 1990s continued to employ the central motifs of Net-based art in a manner as perverted as it was exalted, though the general public was unaware of this. Evidence of the difference between the art world and the corporate environment can be found in the fact that, despite considerable symbolic capital and a distinguished community of early adopters (an enviable situation for any start-up company) none of the frameworks would become players in the New Economy. On the contrary, these pioneering projects were marginalized by the Internet boom. After Internet access was commodified in the second half of the 1990s, Net-based art no longer had to operate its own technological infrastructure, and with this the ideal of a self-determined community waned.

Some readers might begin to wonder if such heavyweight art historical concepts as "modernism" and the "avant-garde" are being trotted out all too easily for the sake of enhancing the theoretical value of a supposedly

28 For more on this, see Peter Bürger, *Theorie der Avantgarde* (Frankfurt am Main: Suhrkamp, 1974); and, in reference to Bürger and Hegel: Gene Youngblood, "Metadesign, Die neue Allianz und die Avantgarde," *Kunstforum International* 98 (January/February 1989): 81.

marginal phenomenon of early 1990s art.²⁹ In this case, one would have to point to the artists' self-perceptions and to the interviews conducted for the Net Pioneers project, where the possibility of being avant-garde was a frequent topic.³⁰ In principle, these doubts are not entirely unjustified, and warrant a deeper analysis and clarification of the terminology as it is used in critical writing on Net-based art. This will be addressed later in the essay, though it is possible (even without clarifying the terminology) to justify why these projects, some of which have all but disappeared from the public

29 This is also seen in their value on the art market: video art from the 1990s can be worth five figures today, while there is hardly any money available for preserving and documenting Net-based art.

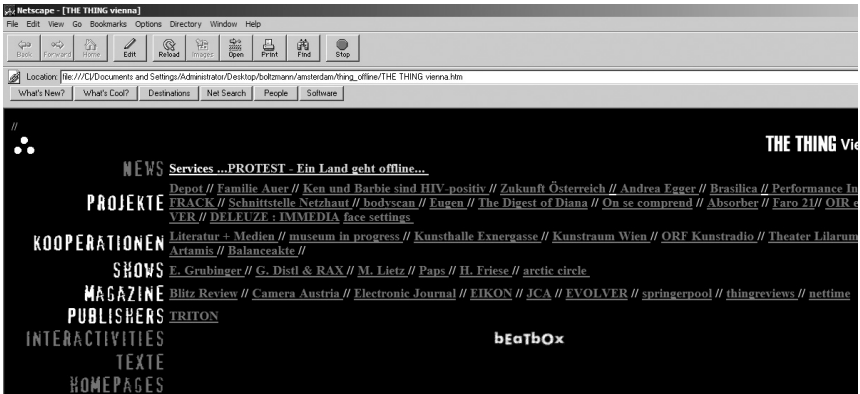
30 Wolfgang Staehle: "To return once again to the early nineties, to the very early social networks or communities. This was an experience that no one had had before. Being involved in exchanges with people on another continent and carrying on a discussion with them—nowadays, that is very normal with today's technology, but in those days, we thought that we were a bit avant-garde, if there was still such a thing." (Staehle, interviewed by Nina Fuchs, Berlin, August 21, 2008.) "There was a feeling of being ahead of things, and we certainly also had this attitude that we knew where things were going. And we were realizing—and that also is reflected in some of the discussions, I believe—that this would have a big impact. This development would have a big impact; transactions would happen much faster, would have an impact socially, politically, in the financial world, in the military; everything would be accelerated; machines, basically, would make decisions for us, eventually. We knew this would change everything. Other artists did not care; the art discourse went on and on; this was a little bit antiquated. So yes, we felt a little bit *avant*." (Staehle, interviewed by Dieter Daniels, Berlin, January 5, 2009.) Helmut Mark: "In those days we were convinced—especially when THE THING was founded in Vienna—that this was new territory, and—if you want to put it like that—we were euphoric and wanted to be pioneers. Looking at it that way, we questioned the existing art system, in favor of a far more expanded concept of art and reception." (E-mail to the author, March 3, 2009.) "We were experimental, you cannot deny that „experimental“ has been an ugly word, almost, in art, like, you know, you think, oh, experimental cinema, oh my God, experimental this or experimental that, you could call it avant-garde; it sounds a little bit better." (jodi.org, interviewed by Dieter Daniels, Berlin, January 30, 2009).

eye, deserve more attention. Unlike the later Web-based Net art, the frameworks projects have not been extensively examined by art critics and historians. They have attracted little to no field research either from an analytical-theoretical standpoint or with regard to its documentation and preservation. The fact that these projects have remained largely unexamined until now is due in part to the fact that their initiators and operators are often unsure as to whether or not they themselves have or can justifiably lay claim to the “artist” designation.³¹ At times, however, they did have an enormous influence on the lives of the people in their communities, as the first to provide access to the electronic network, thereby triggering immediate feedback from the social micro-system of each scene.³² Still, there

31 This ambivalence is obvious in the interviews and conversations conducted with the Net pioneers:

Jörg Sasse, founder and operator of THE THING Düsseldorf, refuses to call the project art, because the act of transformation necessary for art does not occur. (Conversation with Jörg Sasse, Berlin, January 30, 2009.) Staehle gives an ambivalent answer to the question of whether THE THING is art: “The exact same question was also asked at that time. And I could never decide: is what we’re making now art, or is it just all baloney or something, and at some point I just let it go; I didn’t want to make that decision. At some point it was, for me, somehow, conceptual nitpicking: maybe it’s art, maybe it isn’t. Why not just keep going and keep talking about it.” (Staehle, interviewed by Nina Fuchs, Berlin, August 21, 2008.) Helmut Mark: “THE THING Vienna actually began as an art project, pure and simple.” (Mark, interviewed by Dieter Daniels, Linz, February 18, 2009.) Compare also: the comparative investigation of several of these community projects, carried out by Josephine Bosma, who came to the following conclusion: “It may seem irrelevant whether the initiators of these projects thought their work was art initially or not. The fact that they did, however, shows that the boundaries of an artwork are not just blurred; in the course of its development this particular type of artwork dissolves almost completely.” Josephine Bosma, “Constructing Media Spaces” (2004), http://www.medienkunstnetz.de/themes/public_sphere_s/media_spaces/13/.

32 In the 1990s, the art scenes in Vienna, Berlin, and New York consistently maintained e-mail addresses through the projects active in each location: THE THING, Public Netbase, and International Stadt. This is also something that distinguishes them from museum network portals, such as Walker Art Center’s äda’web.



Screenshot of THE THING Vienna Website, 1996

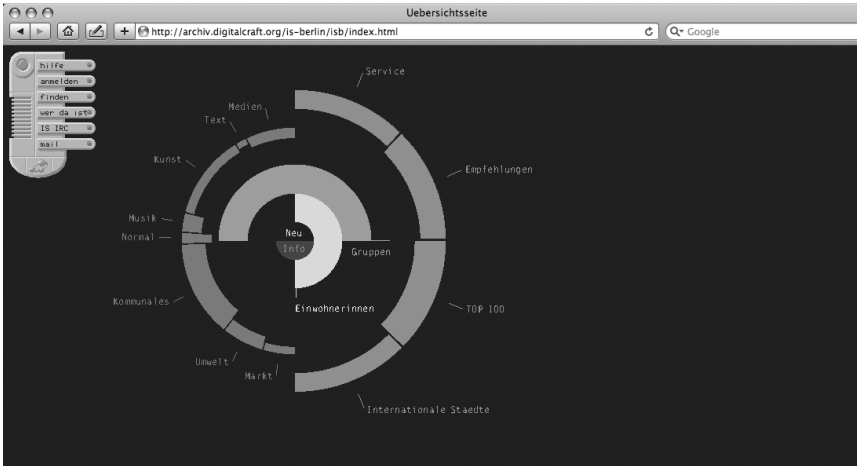
were significant differences among the projects mentioned here, in terms of conceptual orientation and practical realization as well as among the people collaborating on individual projects. This directly affected the relationship between individual autonomy and the collective utopia so much that it left significant traces behind, even when it came to the technical structure of this type of network node. Therefore, the fact that the frameworks' overall designs seem very similar in retrospect should not distract us from the fact that, for instance, THE THING New York wanted to remain more of an internalized "club" for members' online debates, while German-language Thing nodes in Cologne, Düsseldorf, Frankfurt, and Vienna actively linked and shared their publics. Meanwhile the Public Netbase and nettime mailing list actively addressed the general public, including classic mass media. What is more, the content of these concepts changed over time, not only because of the participants but also in reaction to the surrounding media. Around 1994–95, text-based BBS discussions lost their intensity and, as previously noted, some of THE THING's nodes turned to the Web while others ceased activity altogether.³³ Media context changed with the emergence

of the Web, lending renewed vigor to these frameworks as they became not only more visible to a non-participating outside public, but also easier to address for print and broadcast media. Long-term, semi-commercial structures emerged in New York and Vienna, providing servers and services while maintaining technological and organizational independence. Internet mailing lists such as nettime and Rhizome took over the communicative, discursive function of the BBS systems as of 1995–96, but because of the larger number of participants, they tended to be forums for audiences with special interests rather than communities participating in dialogue. Writing on Rhizome founder Mark Tribe, Josephine Bosma commented: “Rhizome is definitely the most successful art platform on the Internet ever. It gets millions of hits a month and has thousands of members. One can wonder, however, whether one can still speak of a community and collaboration when there are probably 100 lurkers for every participant.”³⁴ In establishing a new Thing platform a decade after its closing in Hamburg, its founders deliberately called for a return to “the basic ideas of THE THING ... dialogue and writing about art and culture, initiated and operated by artists,” in order “to develop our own information and communications infrastructure.”³⁵ On the other hand, in the mid-1990s, the etoy group had already turned their backs on the fundamentally democratic community spirit to form a hermetically-sealed corporation closed to outside participants. They did, however, still want to address a mass audience with their Internet activities, even if it meant resorting to technological violence (e.g. *The Digital Hijack*).

33 For instance, Jörg Sasse was primarily interested in the potential for multiple narratives on the BBS, and so he shut down THE THING Düsseldorf, instead of switching to the Web. (Conversation with Jörg Sasse, Berlin, January 30, 2009).

34 Josephine Bosma, “Constructing Media Spaces” (2004), http://www.medienkunstnetz.de/themes/public_sphere_s/media_spaces/scroll/#ftn28.

35 See <http://www.thing-hamburg.de/index.php?id=405>.



Internationale Stadt Berlin, 1994–1997, Web interface see: <http://archiv.digitalcraft.org/is-berlin/isb/index.html>

FROM NETWORK TO ARTWORK

In the mid-1990s, the goal of building autonomous, artist-owned-and-operated communicative structures was gradually replaced by the so-called Net art in a narrower sense, thereby pushing the individual artistic concept or artwork to the fore. A prerequisite for this second step was the granting of access to the medium and the development of an artistic community within it by the frameworks, which also hosted most of the individual projects. Visual design became more and more important in the Web, thanks in part to the conceptual efforts and technical developments of frameworks such as the Internationale Stadt Berlin. This met the expectations for a visual art context better than the text-based, collective BBS discourse had in the past.

This shift from the process to the work goes hand in hand with the individualization of authorship, a phenomenon easily traced in case studies documented by the Net Pioneers project. The development moved from open collectives such as THE THING and the Public Netbase, to hermetic groups such as etoy, to individuals like the team of artists working under the pseudonym jodi.org. For the first time, prominent individual works by artists not primarily known as Net-based artists emerged in contexts such as THE THING or Internationale Stadt—for example, *Netzbikini* (1995), *Computer-aided Curating* (1993–95) by Eva Grubinger, and *Basic Japanese & Basic English* (1994) by Rainer Ganahl. In Grubinger’s case, this form of Net-based art was dedicated to issues involving the art distribution system and its potential to change or expand through the Internet, while the work of etoy, jodi.org, and other members of the so-called Net.Art group was devoted to analyzing the radical transformation taking place in the Internet and its technological, formal, aesthetic, social, commercial, and political functions.³⁶ Here we see a clear shift in both interest and focus: it had less to do with an internal, collective, communicative process than with voicing an opinion on the establishment and commercialization of the Web as a medium of consumption rather than of participation. Joachim Blank summarized this very aptly in 1996 when he differentiated between “context systems” (described here as frameworks) and “researchers, troublemakers, individual perpetrators” as Net-based art in a narrower sense.³⁷ Critique of the art world and euphoria over what appeared to be an unlimited communicative and technical autonomy gave way to an analysis and critique of the Net in reaction to the changing media environment. According to Staehle, the starting

36 A loosely connected group functions under the label Net.Art: it includes not only jodi.org, but also Vuk Cosić, Alexei Shulgin, Olia Lialina, and Heath Bunting, as well as Art Teleportacia Online Galerie (run by Olia Lialian), and associated art critics such as Josephine Bosma and Tilman Baumgärtel.

37 Joachim Blank, “What is Net Art,” 1996, <http://www.irational.org/cern/netart.txt>.

point for The Thing was his critique of “institutional critique” and its gradual commodification by the art world—a commodification he sought to avoid by finding a new medium.³⁸ Just a few years later, etoy’s and jodi’s interventions, however, aimed at the commodification of the Internet as a future mass medium. As jodi.org aptly put it: “We’re doing these things because we’re furious.”³⁹ In other words, artists active on the Net found themselves poised between two fronts: dissidents of the art scene on the one hand and opposers of the Internet’s subsumption into mainstream media on the other hand.

The first generation of framework initiators (Wolfgang Staehle, Helmut Mark, and Konrad Becker) had no interest whatsoever in making “Net-based works of art” and are even somewhat skeptical of this development. By contrast, the second generation saw the server systems they were operating as exploiting the formal, technological potential of an innovative aesthetic. Examples of this can be found in the work of etoy or Blank & Jeron, an artist duo that emerged from the Internationale Stadt Berlin in the last year of its existence. Jodi.org, on the other hand, did not need any kind of server technology for what they refer to as their “browser art,” and explicitly distanced themselves from the frameworks.

38 “In those days there was a movement—institutional critique... the ironic thing about that was that the institutions very rapidly caught up with it, framed it, and then re-institutionalized it themselves. And so I thought, someone needs to actually try to do that again outside of this institutional framework... So we did not at all intend to bring that back into art again. Rather, we chose very deliberately to take an outsider position, simply to create a discourse that might possibly be independent of the constraints that institutions always impose ... to be able, for once, to talk freely about the whole phenomenon of art.” (Staehle, interviewed by Nina Fuchs, Berlin, August 21, 2008).

39 Tilman Baumgärtel, *net.art: Materialien zur Netzkunst* (Nürnberg: Verlag für Moderne Kunst, 1999), 108.



www.jodi.org. The Sub-Domain www.jodi.org was installed in 2001 and contains works from 1995 to 1998.

Interestingly, they even use the term “broadcasting” for their Web-based work, which was not set up for communication or participation, but which could be seen as a caricature of interactivity.⁴⁰ The artistic and discursive Net cultures, once linked by their integration into frameworks, split into two

40 “A new medium started ... a distribution system, which is going world-wide directly in peoples’ houses; this is what we have to pay attention to and to work on, and that was the statement of Net art. That’s the core statement of Net art and that’s really valuable.” (jodi.org, interviewed by Dieter Daniels, Berlin, January 30, 2009). “Broadcasting the work ... we were fascinated by the tool of the browser connected to all of the other browsers, repeated in all other places, peoples’ computers ... that would appear on your computer in the morning or the middle of the day.” (jodi.org, in an unpublished interview conducted by Robert Sakrowski, Berlin, 2003).

halves in the late 1990s. Though the discourse continued to circulate in mailing lists such as *nettime* and *Rhizome*, *nettime*, for instance, no longer defined itself as an art project. The more narrowly defined artistic, creative, Net-based art could be found under domains dedicated to individual projects; it was no longer related to the context of a framework. These mailing lists did, however, play a crucial role in the discussion and promotion of Net-based art. Only a few interventions succeeded in linking back art and discourse, one example being when *jodi.org* or *Netochka Nezvanova* (an anonymous Net-identity, today known as *Rebekah Wilson*) flooded the mailing lists with what at first appeared to be cryptic spam, but which actually contained hidden auto-poetic code semantics. The action resulted in either censorship (disguised as moderation) or in the lists being shut down altogether.⁴¹

Unlike the frameworks, formally aesthetic, media-analytical Net-based artworks claim explicitly to be works of art. They are artifacts that come to life not during the communicative process but in their visual reception, requiring only symbolic participation from the user. Some of the projects are more like measuring instruments, gauging the context of the Internet and its transformation,⁴² while others even refuse user participation, intentionally leaving

41 *Jodi.org* describe this intervention as a work of art. (*jodi.org*, interviewed by Dieter Daniels, Berlin, January 30, 2009). An exemplary analysis can be found in Florian Cramer, "Exe.cut[up]able statements: Poetische Kalküle und Phantasmen des selbstausführenden Texts," dissertation (Freie Universität Berlin, 2006).

42 For more on this, see *Olia Lialina*: "In 1998 Heath Bunting launched http://www.irational.org/_readme.html ... by connecting every word of the article to the same word but with .com, Bunting made a tool that I use already [sic] for ten years to see how words on the Web change their meaning and owners. And the way WWW grows stagnate [sic] and is reshaped. In 1998 many words were still not registered as domain names; in 2000 each of them was; in 2001 many were free again; in 2003 they found new owners. From 2004 [sic] only rare free verbs and adverbs from this page are not subjects of domain auctions." See <http://www.nettime.org/Lists-Archives/nettime-l-0711/msg00048.html>.

him or her with a sense of powerlessness in the face of the medium (e.g., jodi.org, OSS, 1998—this manifested itself as uncontrollable chaos on the PC desktop or, in the case of etoy's *The Digital Hijack* (1996), in the user's virtual kidnapping via manipulated search engines). As the Internet became more commercial, analytical reflection of the Net context changed into a cultural critique associated with the methods of "hacking" and "culture jamming."⁴³ When the New Economy crashed, Net theory also turned into dystopia, a sentiment standing in sharp contrast to the euphoria predominant in the early 1990s.⁴⁴ In this sense, Net-based art and its change in attitude during the 1990s was like a model of the development of a networked society. Though its importance as an example expands far beyond the art context, it has remained largely unexamined in media studies until now. The Net Pioneers project therefore methodically reflects upon and documents this significance by digitizing contextual materials (such as correspondence, programmatic texts, artists' print material, and press clippings) and by making them available with the Net-based projects as online source material. These "snapshots" of the intellectual milieu might serve as kinds of replacements for what can no longer be documented: the way in which these projects are embedded in the contemporary context of the Internet.⁴⁵

43 Even as Net-based art was coming into existence, the connection to hacker culture was important, inasmuch as many of the programmers came from this environment.

44 Some examples are the books published by Agentur Bilwet and one of its members, Geert Lovink; their titles already provide a short history of the relevant topics: *Bewegingsleer*, 1990 (published in English as *Cracking the Movement: Squatting beyond the Media*, 1994); *Media-Archif*, 1992 (published in English as *The Media Archive*, 1997); *Der Datendandy* (The Datadandy), 1994 and *Elektronische Einsamkeit* (Electronic Solitude), 1997. By Geert Lovink only: *My First Recession*, 2003; *Zero Comments: Blogging and Critical Internet Culture*, 2007.

45 See the text by Robert Sakrowski in this volume.

FRAGMENTS OF A MODERNIST TYPOLOGY

Despite the significant differences between the artistic approaches mentioned in this essay, there are also important similarities. Though it is possible to define a descriptive, technical, or formal typology of these similarities and differences, such a typology would say little about how Net-based art served as a model for the networked society. However, the possibility of being avant-garde can serve as a leitmotif for this essay, especially in terms of a revival of modernist motifs and their relations to media since the early twentieth century. Through the cases studies examined by the Net Pioneers and a few related projects, it is possible to summarize some of these modernist motifs and utopias as follows:

- A critique of the “bourgeois” concept of art, of the commercialization and institutionalization of art. (According to Wolfgang Staehle, THE THING was initially motivated by “institutional critique.” Helmut Mark has noted its opposition to artistic, individualistic autonomy.⁴⁶)
- A kind of “art for all” that would reach its audience directly, bypassing the gatekeepers of the art context (this primarily applies to Web-based works by jodi.org and etoy)⁴⁷.
- Collective authorship, or anonymous works, as a critique of the idea of “genius” (e.g. The Thing as a collective discourse, etoy as a group of anonymous members, and jodi.org as a domain name that became a sort of pseudonym).
- The transition from art to life and politics (explicitly in the case of etoy and Public Netbase, as well as in the different attitudes about whether THE THING could be called art or not).

⁴⁶ “In those days, at least as far as the discourse then was concerned, we wanted, in a certain way, to overcome precisely this concept of the autonomy of art.” (Helmut Mark, interviewed by Dieter Daniels, Linz, February 18, 2009).

- Art that does not want to be recognized as art (in the case of jodi.org).⁴⁸
- Art as an effect or shock of the real (e.g. etoy's *The Digital Hijack* (1996), *Toywar* (1999), and later projects by former etoy members such as vote-auction.com).⁴⁹
- Internationalism or non-nationalism (explicitly, THE THING, and implicitly, jodi.org and other Net.Art artists).⁵⁰

47 “Certainly, we turned our back actually [sic] to the art world and had all the reaction through the Internet. But then, surprise, surprise, we got reactions from people who—from Russia and from Germany and from all over the world—who were also interested in making art on the Internet, and also, at that moment, had the same feeling of, ‘This is the future, we turn our back on the gallery world. We are independent. We don’t have to be in the white cube. We are doing our stuff online.’” (jodi.org, interviewed by Dieter Daniels, Berlin, January 30, 2009).

This idea inspired telecommunications art long before the World Wide Web: “The artists who began intervening in networks in the late 1970s initially did so in defiance of the art industry. ‘In our view,’ said Hank Bull and Patrick Ready, ‘it was about art that did not have to go through the art business, but reached the listeners directly from the artists, the producers.’” Inke Arns, “Interaction, Participation, Networking: Art and Telecommunication,” *Media Art Net 1: Survey of Media Art*, ed. Rudolf Frieling and Dieter Daniels (Vienna/New York: Springer, 2004), http://www.medienkunstnetz.de/themes/overview_of_media_art/communication/8/.

48 “There’s no ‘art’ label sticking to it.” Jodi.org, on their work in Tilman Baumgärtel’s *net.art: Materialien zur Netzkunst* (Nürnberg: Verlag für Moderne Kunst, 1999), 107. See also, Heath Bunting, interviewed in 1997 by Josephine Bosma: “So if you say: this is an artwork, you’ve blown the cover immediately.” (<http://www.heise.de/tp/r4/artikel/6/6176/1.html>).

49 Compare Julian Stallabrass on the “aesthetic instrumental switch” between real, political and artistic, aesthetic function. For instance, Pit Schulz describes Paul Garrin’s project *namespace* as “maybe the best Net-art project I know, but only if it did not work.” Julian Stallabrass, *Internet Art: The Online Clash of Culture and Commerce* (London: Tate Publishing, 2003), 103.

50 “Because our site is anonymous, no one can judge us according to our nationality.” Jodi.org, in: Tilman Baumgärtel, *net.art: Materialien zur Netzkunst* (Nürnberg: Verlag für Moderne Kunst, 1999), 113

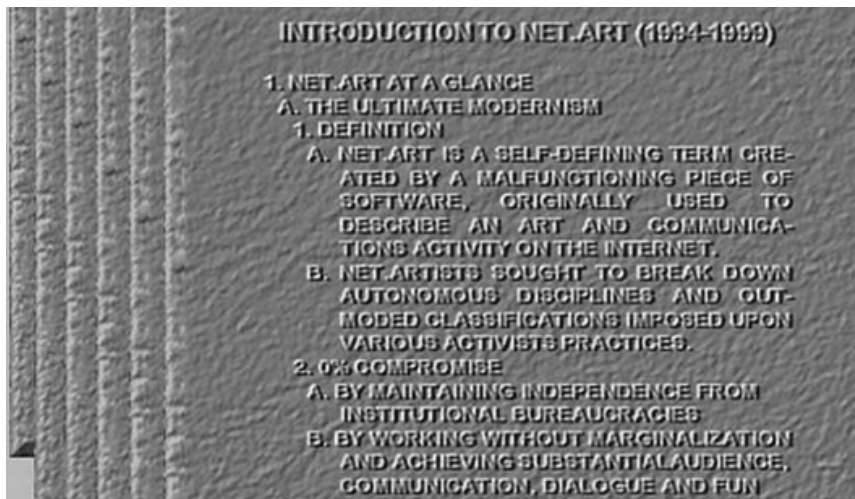
- Reflection on the medium in the medium and the deconstruction of its materialism (etoy, jodi.org).
- The revision of formalist approaches, referring to the network medium (jodi.org, Blank & Jeron).

These are not consistent, overall concepts explicitly following the oversized footsteps of the modernist tradition, but rather scattered bits and pieces from the history of modernist ideas. They are examples of the imposing, yet never completed, modernist construction sites, some of which have long been abandoned to decay, whereas some of these ruins are now being re-visited and re-evaluated by Net-based art. To paraphrase one of the leitmotifs of documenta 12 in 2007: “Is modernity our antiquity?”

The strong influence that these motifs have on artistic self-awareness—particularly as unfulfilled utopias which, despite all of their contradictions can never be fully refuted—is evident in the manifesto *Introduction to net art* by Natalie Bookchin and Alexei Shulgin. Blank & Jeron chiseled it in stone and displayed it, like a tombstone or memorial to Net-based art, in the first and last large exhibition showing a panorama of Net art in 1999: *netcondition*.⁵¹ Headlined as “The Ultimate Modernism,” it includes an extensive typology that oscillates between emphasis and irony.

Using historical modernism rather than contemporary postmodernism as the methodological leitmotif in our examination of Net-based art might sound strange to some readers. In the 1990s, the theoretical discourse on the Net (not necessarily Net-based art) was profoundly permeated by postmodernism (the Net was thought to fulfill central elements of postmodern theory:

51 http://on1.zkm.de/netcondition/projects/project06/default_e and <http://www.easylife.org/netart/catalogue.html>.



Introduction to net.art by Natalie Bookchin and Alexei Shulgin, chisled in stone by Blank & Jeron, 1994–1999

non-linear, rhizomatic, hyper-textual, authorless), and this can be seen simply by looking at the titles of a few influential books. One often-overlooked fact, however, is that the Internet realized essential concepts that had accompanied modernism long since: ubiquitous and simultaneous information awakened a hope for the democratization of communications—exactly what was hoped for in the early days of the telegraph and radio.⁵² At the same time, the Internet had a strong impact—comparable to the electric telegraph in the nineteenth century—on the economy’s (neo-) liberal globalization. Contradictory to all media-immanent, postmodern theories, many aspects of Net-based society’s ideology and practice might be called neo- or hyper-modern. Net-based society is fixated on innovation and

⁵² See the chapter on “Zweihundert Jahre Medientechnologie und Demokratieutopie” in Dieter Daniels, *Kunst als Sendung: Von der Telegrafie zum Internet* (Munich: C. H. Beck, 2002), 28–32.

the future in complete opposition to the “there is nothing new under the sun” nostalgia characterizing the postmodern era, as particularly evidenced by the architecture and visual arts of the 1980s.

The question of the avant-garde status of Net-based art, and of its modernity or postmodernity, is common throughout all of the literature on Net-based art. In the literature it is possible to roughly differentiate between the following three positions:

a) A partial continuity of avant-garde motifs. According to Julian Stallabrass, Net-based art (although playfully fractured), is still oriented toward its original ideas.⁵³ This also corresponds to the ambivalence of the “ultimate modernism” in the manifesto by Bookchin and Shulgin.⁵⁴ In contrast, Peter Weibel postulates a purely affirmative, unhistorical logic of fulfillment, which in the end declares that technology itself will replace the old artistic utopias.⁵⁵ This “deliberate naivety” has been justifiably criticized.⁵⁶ Two master theses devoted exclusively to Net-based art as avant-garde do not take into consideration that these art works are self-reflectively dealing with the history of the avant-garde movements.⁵⁷

53 Stallabrass compares the avant-garde attitude of Young British Art, which was consumed by the art market, to that of Internet art: “In contrast, many of the actual conditions of avant-gardism are present in online art; its anti-art character; its continual probing of the borders of art and of art’s separation from the rest of life; its challenge to the art institutions; its genuine group activity, manifestos and collective programs; and most of all an idea of forward movement (as opposed to one novelty merely succeeding another).” For him, early Internet art could be characterized as “a play with the condition of autonomy ... a play with the idea of being avant-garde.” Julian Stallabrass, *Internet Art: The Online Clash of Culture and Commerce* (London: Tate Publishing, 2003), 35ff.

54 *Introduction to net.art*, <http://www.easylife.org/netart/catalogue.html>.

b) A postmodernist reappropriation of modern and especially of formalist strategies. According to Brett Stalbaum, media-reflective Net-based art supplies an “oppositional and strategic pastiche of a modernist conceptual framework.”⁵⁸ Josephine Berry defends Net-based art against criticism that it is non-political and “techno-formalist” by explaining that it works against the implicitness of the “commodity” of the Internet, and tries to keep the medium open and variable in terms of aesthetics and function.⁵⁹

- 55 “Net.art—reaching from physical, local installations to the world-wide-linked computer games—has become the forum within which most of the emancipatory hopes of the avant-garde art have been formulated anew. ... One condition and a principle reflection that feed the interest in the development of a global network is the belief that the social-revolutionary hopes of the historical avant-garde can be fulfilled technologically now.” Peter Weibel, “net_condition Art in the Online Universe,” exh. brochure and press release, ZKM Karlsruhe (1999), <http://on1.zkm.de/news/artlog/stories/1999/08/netcondition>.
- 56 Referring to Weibel’s statement, Barbara Basting writes: “The artists, on the other hand, cannot be guilty of such deliberate naivety.” Barbara Basting, “Salon für Cyberkünstler,” *Frankfurter Allgemeine Zeitung* (October 18, 1999): 54.
- 57 Daniel Stringers approach is based only on the avant-garde theory of the 1970s; Guido Hirschsteiner operates with a systems theory approach, which overlooks the historical dimension. See Daniel Stringer, “How Does the Tradition of the Avant-Garde Continue on the Internet?” (January 2001), <http://sparror.cubecinema.com/dan/diss.html>. See also: Guido Hirschsteiner, “Netzkunst als Avantgarde,” Master’s thesis, Ludwig Maximilian University (Munich: September 2000), <http://www.hirschsteiner.de/>.
- 58 Brett Stalbaum, “Conjuring Post-Worthlessness: Contemporary Web Art and the Postmodern Context,” *Switch Magazine* (January 1997), <http://switch.sjsu.edu/web/art.online2/brett.links/conjuring.html>. In particular, see two chapters: “Habitual Modernism as the Root of All Worthlessness” and “‘Pastiche’ the Modernist Avant-Garde: A Postmodern Strategy.” See also Brett Stalbaum, “Aesthetic Conditions in Art on the Network: Beyond Representation to the Relative Speeds of Hypertextual and Conceptual Implementations” (Summer 1997), <http://switch.sjsu.edu/web/v4n2/brett/>.
- 59 Josephine Berry, “Human, All Too Posthuman? Net Art and its Critics,” Tate Online Intermedia Art section (2000), <http://www.tate.org.uk/intermediaart/entry15616.shtm>.

In many respects this is a new, postmodern version of the modern formalism debates of the 1950s.

c) A rejection of the genealogy of the succession of avant-garde movements, in favor of postmodern continuum and an emphasis on the conceptual and contextual aspects instead of the formalist type (see Jacob Lillemose⁶⁰). Calling the Net.Art group a parody of an avant-garde movement on Wikipedia is also a way to oppose any serious continuation of the historical avant-garde.⁶¹

All of the literature quoted above deals with “Net-based art” as a whole. However, this essay and the Net Pioneers project both distinguish between the various artistic strategies and technical methods that unfolded over the era of Net-based art. Moreover, the connection to contemporary scientific theory—as for example in Bruno Latour’s critique of modernism and postmodernism—is almost entirely absent from the discussion of Net-based art and its relationship to modernism and the avant-garde. Only Timothy Druckrey examines this possible parallel of the artistic and theoretical confrontation with the history of modernism, although he does not discuss individual works of art in depth.⁶²

⁶⁰ Jacob Lillemose, “A Re-declaration of Dependence,” (2004), <http://www.artnode.org/art/lillemose/readme2004.html>, especially the section “Towards an Aesthetic of Contextual Software Not-Just-Art.”

⁶¹ “Although this group was formed as a parody of avantgarde movements by writers such as Tilman Baumgärtel, Josephine Bosma, Hans Dieter Huber, and Pit Schultz, their individual works have little in common.” (<http://en.wikipedia.org/wiki/Net.art>.)

⁶² Timothy Druckrey, “Initial Conditions,” in *net_condition art and global media*, ed. Peter Weibel and Timothy Druckrey, (Cambridge, MA: MIT Press, 2001), 21ff.

AVANT-GARDE—MODERNISM—POSTMODERNISM

The terms “avant-garde” and “modernist” are often used interchangeably. In this text, however, it seems to be useful to differentiate between the two terms. Without referring to an extensive literature review, it is possible to derive a differentiation from an understanding of everyday language, similar to the way Peter Bürger did in 1974.⁶³ “Avant-garde” is always defined by temporal difference and artistic dissent to what already is or has already been established. It does not claim to be “contemporary art,” but rather to be ahead of its time, and contains reflections on and criticism of the status quo in art and culture. It claims to be different from everything we know by using effects ranging from irritation to destruction. Throughout all avant-garde movements threads the motif of transfer from art into everyday life.

In answering the question “Is making art still necessary and possible?” the “new” media are assigned an important role, from Walter Benjamin’s thesis on photography and film to Lev Manovich’s question “Is Art after Web 2.0 Still Possible?”.⁶⁴ It is precisely because of its temporary nature that the avant-garde has always carried within itself its own future dissolution and removal. One could say that its expiration date is also its trademark.⁶⁵

63 In his “Theorie der Avantgarde” (1974), Peter Bürger examined the failure of avant-garde movements in the early twentieth century, as well as their revival by the neo-avant-garde artists of the 1960s. Adding to this in 1995, Bürger is differentiating between the avant-garde and modernism: “Modernism” aims “to establish a new style for the whole epoch,” and, in the process, continues to focus on the autonomy of the work of art. The goal of the “avant-garde,” on the other hand, is to “change the way people live together.” Peter Bürger, “Ende der Avantgarde?,” in *Das Altern der Moderne: Schriften zur Bildenden Kunst* (Frankfurt am Main: Suhrkamp, 2001), 187.

64 Lev Manovich, “Art after Web 2.0,” *The Art of Participation: 1950 to Now*, exh. cat., San Francisco Museum of Modern Art (London: Thames & Hudson, 2008), 77.

Postmodernism declared the avant-garde's claim to originality outdated. Taking up Benjamin's thesis on the work of art in the age of mechanical reproduction, in 1981 Rosalind Krauss wrote that "the critique of the original always has to be linked to a critique of the myth of originality."⁶⁶ Thomas Crow went so far as to say the avant-garde serves the cultural industry by appropriating oppositional practices.⁶⁷ The term "avant-garde" might also seem exhausted because it has spread throughout many social and commercial contexts and is now commonly applied to cars, fashion, domestic appliances, and new technologies.⁶⁸ However, in the context of Net-based art and its implicit critique of the modern cult of genius, the temporary interventionist character of the avant-garde represents an alternative to modernism's absolutist claims. The avant-garde avoids this tendency toward the absolute because it always has to define and differentiate itself from its contemporary context. In contrast to the temporary intervention of the avant-garde, modernism is founded on the belief in a lasting innovation. It marks the beginning of a new epoch, whose end is neither expected nor debated. While the principle of the avant-garde allows for context-related, temporary, new versions, modernism can never fall back behind itself. Situationism can therefore be understood as a kind of avant-garde critique of

65 Nevertheless, or precisely because of them, avant-garde movements have tended to historicize themselves. See Astrit Schmidt-Burckhardt, *Stammbäume der Kunst: Zur Genealogie der Avantgarde* (Berlin: Akademie Verlag, 2005).

66 Rosalind Krauss, "The Originality of the Avant-Garde and Other Modernist Myths," *October*, no. 18 (Fall 1981).

67 Thomas Crow, "Modernism and Mass Culture in the Visual Arts," in *Modernism and Modernity: The Vancouver Conference Papers*, ed. Benjamin H. D. Buchloh, et al. (Halifax: The Press of the Nova Scotia College of Art and Design, 1983), 215–64.

68 Just to mention a current example: "Twitter Medium der Avantgarde," *Süddeutsche Zeitung* (December 5, 2008), <http://www.sueddeutsche.de/computer/741/450463/text/>.

totalitarian modernism. An opposing example is provided in Clement Greenberg's transformation from a political revolutionary modernism to a formalist affirmative modernism. The conflict—acute since the 1980s—between postmodernism and the different varieties of modernism and neo-modernism has to be evaluated more from an ideological standpoint than from an historical one. The notion that its paradigms could be outdated is unacceptable to modernist thought. Postmodernist theories do not seem to be capable of going beyond a defensive attitude, because even though they are correct in questioning modernism's claim to absolutism, they have nothing of equal value to offer in its place. The powerlessness of post-modernism is founded in the fact that it does not object to "the modern world" as such, embodied in the progress of technology and science, because otherwise it would be declared an anachronism. Instead, it objects to modernism as the kind of "modernité," as Charles Baudelaire called it, which is itself an artistic, aesthetic reaction to technological, scientific modernity and its consequences for society.⁶⁹

Since modernism lays claim to totality, but has never achieved it and has always remained a utopia, Bruno Latour asserts that it never actually began: "We have never been modern," is his thesis. He proposes instead that we regard modernism neither as a radical break nor as a one-time revolution, but rather as a process; an iterative model of continual translation and the networking of hybrid conditions. Latour sums this up as a "sociotechnological network" that is ignored and misunderstood by established science: "criticism itself has to face a crisis because of these networks it cannot swallow." These sociotechnological networks "are simultaneously real, like nature, narrated, like discourse, and collective, like society," meaning that

⁶⁹ See the chapter on "Modernität und Medien," in *Kunst als Sendung: Von der Telegrafie zum Internet*, ed. Dieter Daniels (Munich: C. H. Beck, 2002), 162–76.

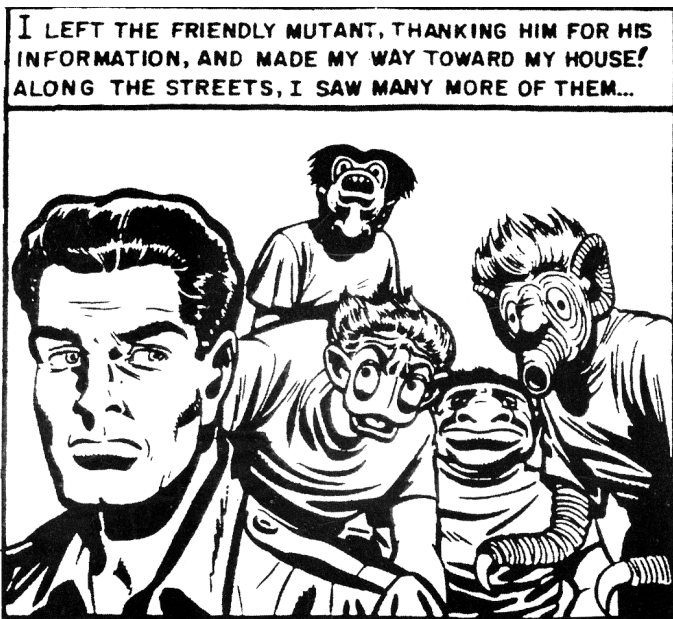
they contain an inherent contradiction that cannot be resolved in modernist thought.⁷⁰ The surprising proximity of this terminology to early Net-based art is evident. However, it should not lead to a simplified analogy; since Latour's concept of network is both metaphorical and concrete at the same time, it cannot be understood in terms of technology.⁷¹ This is also true for Hakim Bey's "temporary autonomous zone." For both authors, the discursive hybridity of the networks in 1991 is an alternative to modernism's claims of universalism. Even if it is by pure coincidence, 1991 was also the year that THE THING New York went online, and started a discourse inside the electronic network as an alternative to the mainstream modernist art world.

REVERSE ENGINEERING MODERNISM

Having differentiated between the terminology, we may apply it to our case studies and claim that the frameworks are "avant-garde" in their practice. As independent, social "reality communities," as Youngblood would call them, the frameworks are ahead of their time compared to the existing art and media systems. But this advantage is quickly overtaken by commercial, technological reality. The frameworks represent a moment of autonomous innovation, which they do not successfully build upon to establish their own long-term paradigms, because the network context surrounding them changes too rapidly. They are in accordance with the temporary quality of the avant-garde movement that becomes part of life before it can establish

70 Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993), 5 and 6. (First published in French: *Nous n'avons jamais été modernes: Essai d'anthropologie symétrique* [Paris: La Découverte, 1991])

71 Latour is referring to mechanical networks such as the railway or telephone, which are both local and global, and the paths of ideas, knowledge, and facts is comparable to these kinds of technological networks. He did not yet mention the Internet, but rather the distributed intelligence of computers: "Reason today has more in common with a cable television network than with Platonic ideas." *Ibid.*, 119.



THE THING is an international bulletin board service offering discussions on art and critical theory. a virtual gallery of on-line projects. database archives. Internet E-mail. and live conferencing.



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itself as modern. This is different in the case of the following Net.Art movement. Its formal, self-referential analyses demonstrate a typically modernist repertoire, disclosing, reducing, or destroying structures of the network medium. The corresponding vocabulary employed by art criticism then sometimes seems like a distant echo of Clement Greenberg's verdicts on modernism. However, in their outside presentation, the core group of Net.Art deliberately chose to use relics borrowed from the history of the avant-garde movements.⁷²

In the 1990s, all contemporary artists, critics, and theoreticians of Net-based art agreed that it was impossible to simply continue the modernist tradition. Yet the spirit of Net-based art is not postmodern either, because it is still obsessed with the future: promises which could be opportunities to be grasped, or hopes to be spoiled. It may be possible to call this "re-modernist." Fully aware of the break with modern tradition and of the zeitgeist of postmodernism, it re-considers or re-enacts some of the central modernist paradigms, including: the process of integrating art into life; non-nationality; anti-commercialism; critical formalism; and, most importantly, the possibility of being avant-garde. With this re-modern attitude and practice, Net-based art does not expect to succeed in the framework of postmodernist art; rather, it sees the Net as a place for the fulfillment of that which modernism sought, but never achieved.

Without building much of a theory around its practice, the huge variety of Net-based art created within the short period of 1992 to 1997 and documented in the Net Pioneers case studies seemed to be re-visiting modernism

⁷² See their description in Wikipedia "as a parody of avantgarde movements." (<http://en.wikipedia.org/wiki/Net.art>.) A typical example of this semi-serious, semi-parodic attitude is the book series *classics of net.art*, which exists simply as an announcement on the Vuk Cosić website: <http://www.ljudmila.org/~vuk/books/>.

with an awareness of the fact that “we have never been modern,” to quote the phrase by Bruno Latour. However, how can we understand modernism without even trying to be modern? How can we say that modernism is over or never took place, without testing it? And if we want to test it, how can we discover its *modus operandi*? To the postmodern mind, the technical and commercial success of “the modern world” (as the antithesis of aesthetic modernism) sometimes appears as a machine running at high speed, without a plan detailing either where to go or how to stop.⁷³ In the mid-1990s, digital media, the Internet, and the World Wide Web seemed to be the most advanced part of this machinery and were offered, in the face of all cultural and postmodern skepticism, as the ultimate proof that innovation will continue. In this specific context, the activities of Net-based art are in a paradoxical situation: they are a hybrid of the cultural, postmodern attitude and technological, hyper-modern dynamics. They operate in the gap between theory and practice, where the practice is part of technological, hyper-modern dynamics, and where the theory belongs to cultural, postmodern attitudes. This unique position enables Net-based art to analyze the forces and functionalities of modernity, not so much in theory, but through a symbolic practice, taking place within the digital medium. Metaphorically speaking, we can call this “reverse engineering modernism.” Why reverse engineering? In software technology, reverse engineering involves analyzing the functions of a program without any available documentation, in a process of trial and error, and then rebuilding its functions step by step. Reverse engineering is also applied to any kind of hardware objects that can be disassembled and turned back into a blueprint, for example as illegal “look-alike” products. The best comparison here is that of a defunct software program, whose

73 This links the postmodern to the pre-modern critique of progress, as Baudelaire’s concept of “modernité” points directly to the difference between the arts and the natural sciences, and their impact on technology.

functions and operations are analyzed, and the program made operational again. After reverse engineering a program, it is possible to run it again.⁷⁴ In this case, deconstruction and reconstruction are no longer separate, but rather are simply two ways of looking at the same thing. From a humanities viewpoint, this seems to resemble research methods employed in history or archeology. However, in software development, which is one of the most forward-looking industries, history is not an end in itself but rather a research tool applied in determining the future operability of old programs. This is exactly the way in which Net-based art reworks the programs of modernism and their relations to modernity: the lost blueprint and the no-longer-intelligible dynamism of modern innovation is analyzed, commented, simultaneously deconstructed and reconstructed, tested, and then put back into operation. This does not happen at a safe distance, like in the 'white cube' of the art world, but inside the most advanced system of the day: the digital network. Here, the antagonism between the techno-social "modern world" and its artistic counterpart "modernity" (a leitmotif of all modern art since Baudelaire's time) is itself being questioned, since Net-based works of art exist in both of these fields, or rather in the above-mentioned gap between them. This is what makes early Net-based art a much more important part of the art of the 1990s; it deserves more attention than it receives, and this is one of the reasons for initiating the Net Pioneers project.

74 This is called "re-engineering." The terminology is actually much more complex. See the taxonomy by James Cross and Elliot Chikofsky from 1990 at <http://www2.informatik.hu-berlin.de/swt/projekt98/lehre/taxonomy.htm>.

POSTSCRIPT: FROM "SOCIAL SCULPTURE" TO SOCIAL SOFTWARE

Once repressed in part, the avant-garde did return, and continues to return, but returns from the future: such is its paradoxical temporality.

Hal Foster, 1996⁷⁵

This essay has so far presented historical arguments, but there are also contemporary reasons for the importance of Net-based art today. Net-based art also provides a prehistory of Web 2.0 and the significance of today's social software and communities. There is no direct genealogy that links today's communities back to Net-based art and the frameworks of the 1990s, most of which have long since disappeared from the Net. However, the avant-garde status of the Net-based art projects will perhaps become more obvious today than in the context of their own time, when they were rapidly overtaken by the commodification and commercialization of the Internet. At the same time it would be too easy to pretend that the success of companies such as Facebook or MySpace confirms the artistic concepts and visions of self-organized user communities. In the mid-1990s, it was too early for a broad acceptance of these ideas. The first major attempts to commercialize the Web in the late 1990s ignored the ideas of these pioneering projects and ignored the fact that the Internet has a logic of its own. These attempts failed because they wanted to turn the Web into a "push medium" for broadcasting corporate content; a symptom of this was the liaison between AOL and Time Warner.

Regarding Web 2.0 today, the question of possible autonomy has to be posed entirely anew. Through the hybridization and de-contextualization of information, the dividing lines between self-organized, commercial, and state-sponsored media are no longer as clear as they were in the 1990s.

⁷⁵ Hal Foster, *Return of the Real* (Cambridge, MA: MIT Press, 1996), 29.

Today, the communities are the main conveyors of viral marketing and the new hotspots in a fresh edition of the New Economy, where the “attention economy” becomes the most scarce resource in the flood of information.⁷⁶ Effective advertising now depends on the determination of user profiles, since classic so-called graphic advertising is meaningless in comparison to the guidance of search results and influence on user navigation behavior. This kind of metadata mining exploits the pseudo-autonomous media cultures of Web 2.0: “user-generated content,” even if it is available for free, is ultimately sold back to the users through corporate structures.⁷⁷ Through their micro-work invested by creating this content and consuming it again, the communities finance the cash profits for the attention-based economy. Hence, the ideals of the self-organized artist communities of the early 1990s have been turned completely inside-out by companies like Facebook and Myspace, which offer a corporate-guided, fake independence.

76 See the interview with public relations manager Martina Mekis: “Communities in general are, for advertising work, a gift from God. They make it easy for us, because the users there reveal a great deal about themselves. ... The users join different groups and practically turn themselves into cluster—no study could do it better.” *Silver*, no. 17 (October 2008): 25, <http://www.sil.at/aktuelles/magazin/magazin-nr-17/seite-25/>.

77 A comparable business model existed in the 1980s in the first prominent “virtual community,” founded by Steward Brand: The WELL. “Brand argued ... that users should be allowed to create their own conversation topics ... Brand hoped to allow the system’s users to converse with one another and to market that conversation back to its participants.” (Fred Turner, “Where the Counterculture Met the New Economy: The WELL and the Origins of Virtual Community,” *Technology and Culture* 46, no. 3 [July 2005]: 497.) The difference between this and the self-organized, non-commercial Net community in Europe can be seen in the attitude of the BIONIC Mailbox representative, Rena Tangens: “Besides, we are not selling information—we do not own it, after all—but charge for the utilization of resources.” *On Line: Kunst im Netz*, ed. Helga Konrad (Graz: Steirische Kulturinitiative, 1993), 101.

On the other hand, the blogospheres in the social networks indisputably offer an alternative to “official” mass media—something dreamed of by the video activists in the 1970s, as well as by the Net activists of the 1990s. Also, advanced creative platforms are moving from commodification of access to the “customization” of self-designed environments for creative, collaborative use of the Net and digital tools. With today’s “pro-ams,” or professional amateurs, creating their own team-based work environments, Gene Youngblood’s vision of the metadesign and the new generation of “Renaissance amateurs” is within reach.⁷⁸ Even Joseph Beuys’s frequently misunderstood dictum “everyone is an artist” can be reinterpreted, shifting from “social sculpture” to “social software.” Considering these phenomena, does it still make sense to operate with the concept of “Art” with a capital “A”? Lev Manovich assures us that his question “Is Art after Web 2.0 Still Possible?” is not a rhetorical one for him.⁷⁹

To conclude: the anticipations of Net-based art in projects such as THE THING, Public Netbase, and Internationale Stadt did not materialize during the 1990s, but from today’s perspective some of their concepts and visions have been confirmed, albeit under altered conditions.⁸⁰

If we use the formula mentioned earlier—one year in the Internet equals seven years of life—to calculate how far ahead of the times the Net pioneers

78 Gene Youngblood, “Metadesign: Die neue Allianz und die Avant-Garde,” *Kunstforum International* 98 (January/February 1989): 76–94.

79 “Is Art after Web 2.0 Still Possible?” was supposed to be the title of his essay, according to Lev Manovich. (Conversation with Lev Manovich on February 14, 2009). However, without consulting him, editors at the San Francisco Museum of Modern Art changed the title from an open question to an affirmative statement. See: Lev Manovich, “Art after Web 2.0,” in *The Art of Participation: 1950 to Now*, exh. cat., San Francisco Museum of Modern Art (London: Thames & Hudson, 2008), 77.

were, then they would be more than one hundred years old and ready to enter into the museum of techno-social-artistic history, which has yet to be built!

80 When asked if THE THING in the 1990s anticipated the ideas of the Web 2.0, Wolfgang Staehle replied: "It was our ideal; we wanted to be the producer and the recipient and everything in one. That's something we aspired to, we tried to get away from this kind of dichotomy, somebody produces something, with some disposition, and then somebody else just buys it. Our idea was, everybody is a producer; everybody is an artist, everybody who wants to participate. That was kind of the credo." And on the commercialization of these ideals: "I never had illusions; this was a 'temporary autonomous zone' — Hakim Bey's term — it's temporary, I knew that." (Wolfgang Staehle, interviewed by Dieter Daniels, Berlin, January 5, 2009.)