

A Strong Couple

New Media and Socially Engaged Art

SJOUKJE VAN DER MEULEN

ABSTRACT

Despite the relevance of new media art for the critical understanding of the information and network societies today, it is largely ignored as a socially engaged practice—certainly compared to other forms of socially engaged artistic practices in the international field of contemporary art. This article outlines the reasons for this relative neglect and specifies different kinds of new media art that qualify for the category of socially engaged art beyond leftist politics and ideologies transposed to the realm of art. Proposing and mobilizing a “media-reflexive” art theory, which emerged from the author’s doctoral dissertation, this claim is substantiated by the analysis of three exemplary digital art projects by Joseph Nechvatal, George Legrady and Blast Theory, respectively.

Socially engaged art is a recurring topic in contemporary art, with a historical grounding in modern art of the 20th century, from Russian Constructivism, Dada, happenings and Fluxus to the Situationists and relational art. In *The Social Turn* (2006) Claire Bishop diagnoses

a recent surge of artistic interest in collectivity, collaboration, and direct engagement with specific social constituencies. . . . This expanded field of relational practices currently goes by a variety of names: socially engaged art, community-based art, experimental communities, dialogic art, littoral art, participatory, interventionist, research-based, or collaborative art [1].

Bishop and other critics of the art world, however, rarely credit the role of socially engaged new media art in this “expanded field.” The critic and curator Nicolas Bourriaud—who coined the term “relational aesthetics” in the 1990s—even suggested at the 2010 Art Basel that the main effects of the computer revolution are visible today among artists who do not use computers [2].

There are various reasons for this relative neglect of new media art as socially engaged practice in the established con-

temporary art world. The first is linked to the antagonism between the art world and the new media art scene, as critics on both sides of this split have recognized. Media theorist Geert Lovink asks, for example: “Why is it so hard for artists that experiment with the latest technologies to be part of pop culture or ‘contemporary arts?’” [3]. Bishop also refers to this split: “There is, of course, an entire sphere of new media art, but this is a specialized field of its own: it rarely overlaps with the mainstream art world” [4]. What art critics from Bishop to Bourriaud do not acknowledge, however, is that they contribute in no small measure to this “divide,” especially regarding socially engaged art. Bishop, for example, underrates the recent history and social ambitions of new media art when she asks:

While many artists use digital technology, how many really confront the question what it means to think, see, and filter through the digital? How many *thematize* this, or reflect deeply on how we experience, and are altered by, the digitalization of our existence? [5]

Beside the artists discussed in this article, there comes to mind a host of artists who have seriously considered “the digital” through their work since the mid-1990s, including Harun Farocki, Pierre Huyghe, Usman Haque, Natalie Jeremijenko, Jodi, Trevor Paglen and Knowbotic Research, all of whom have operated in the art world and some of whom were first presented at media art festivals such as Ars Electronica, ISEA (International Symposium on Electronic Art) and transmediale.

Another reason for the unresponsiveness to new media art in the “recent surge” of socially engaged art is the trend to identify new media art with the social realm only when it is mobilized for social and political causes. This genre of art, in other words, is often aligned with leftist politics and manifests itself in forms of cultural activism that seek social and political change. This ideological tendency of socially engaged art has also a strong history in the 20th century but is once again fueled by the upsurge of social media platforms and the common but often misinterpreted idea

Sjoukje van der Meulen (art critic, theorist), Department of History and Art History at Utrecht University, The Netherlands. Email: <sv103@caa.columbia.edu>.

See <www.mitpressjournals.org/toc/leon/50/2> for supplemental files associated with this issue.

that they instigate societal change through their massive reach and interactive nature. While social media certainly provide a new platform for socially engaged art, an ideological and activist reading of new media in the context of Web Culture 2.0 does no justice to the rich and varied ways in which media art forms intersect with society and have done so since the convergence of the personal computer, the Internet and digital culture. It is debatable whether socially engaged art should have a critical ideological subtext or whether it could also focus on social realities in other ways; for example, by critically exploring the political, social, cultural and technological conditions that shape society in a given period.

In this article I reconsider new media art's links to social practices and identify categories of new media art that reflect upon information or network society in other than ideological and activist ways. In addition, I propose a reflexive media art theory on the intersection of art and technology, which is equipped to address new media art and its role and function in society. The theory is mobilized as both an explanatory model and a critical tool for three carefully selected case studies that provide evidence of the significance of socially engaged new media art for understanding the information and network society: Joseph Nechvatal's *Computer Virus Project 2.0* (2002), which responds in an abstract visual language to the social problem of AIDS in the early 1990s through creative simulations of the HIV virus; George Legrady's database project for the Seattle Public Library, *Making Visible the Invisible* (2004–2014), which opens up the information stored in the library's database to implied sociocultural meanings with information visualization software; and Blast Theory's mixed-reality performance, *Can You See Me Now?* (2001), which links urban spaces and the virtual worlds of online gaming to address in a critical and reflexive way the impact of geomobile technologies on society.

NECHVATAL'S COMPUTER VIRUS PROJECT 2.0

Joseph Nechvatal's *Computer Virus Project 2.0* is a good example of socially engaged new media art in a nonactivist and nonideological sense. The artist describes his digital project—in which artificially created viruses attack digital image files stored in a computer—as follows: “With *Computer Virus Project 2.0*, elements of artificial life have been introduced in that viruses are modeled to be autonomous agents living in and off the image. The project simulates a population of active viruses functioning as an analogy of a viral biological system” [6]. Nechvatal draws an interesting comparison here between artificial and biological viral systems, which is crucial for understanding the socially engaged nature of

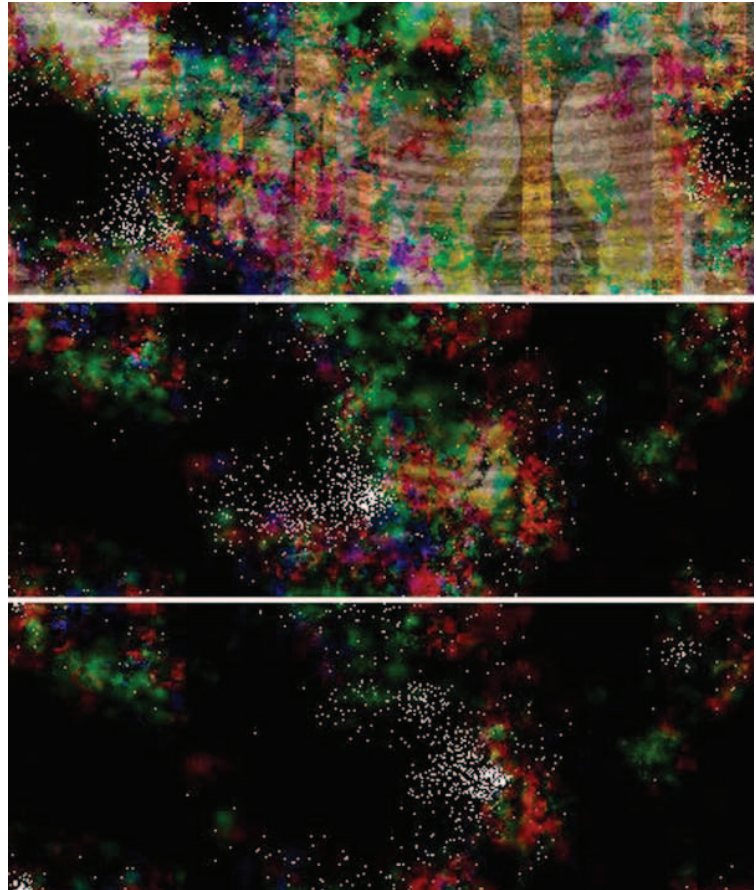


Fig. 1. Joseph Nechvatal, “Black Attack,” *Computer Virus Project 2.0*, 2002. © Joseph Nechvatal

the work. The social issue at hand is the AIDS epidemic that erupted in the late 1980s, with which the artist was personally involved:

In my personal life I had issues around AIDS, and AIDS was very much an important part of what was happening socially. I wanted to make an art that would be analogous to these problems and would be able to visualize these problems. That was the beginning of my viral project [7].

In this real-time digital animation, Nechvatal investigates a visual algorithm that mimics the way in which a viral infection such as HIV operates: Just like HIV attacks the human body by infecting the cells of its immune system, the artist's artificially created viruses attack color pixels of digital image files (Fig. 1). Nechvatal's work is clearly distinct from the socially engaged artistic production of the well-known direct action group Act Up!, who were pioneers in raising awareness about AIDS in the social and political domain. Rather than using activist strategies, Nechvatal sheds light on the nature of viruses and how they operate through an abstract language that is reminiscent of the visual logic of modernist painting, with the underlying ambition to address a distressing social phenomenon through its biological dimension.

Digital art such as Nechvatal's can be analyzed with the reflexive media art theory that I first outlined in my dissertation, “The Problem of Media in Contemporary Art Theory

(1960–1990)” [8]. The thesis itself deals with the root cause of the rivalry between art theory and media studies—to begin with the epistemological and ideological clash between the work of Clement Greenberg and that of Marshall McLuhan over the period from the 1940s through the 1960s. The conclusion of the dissertation is that the antagonistic aesthetic and technological traditions in the postwar period need to be transcended through a reflexive media art theory that takes both traditions equally seriously: on the one hand the self-critical tradition of Greenberg’s modernist art and on the other McLuhan’s call for understanding media. The proposed theory thus appropriates the concept of *reflexivity* from the modernist art tradition and mobilizes it as a method for analytical reflection on media art, without, however, falling into the trap of an “art-for-art’s-sake” approach. At the same time, the theory adopts the critical insight of the postwar media tradition that technological conditions must be considered as a formative factor in contemporary art, while moving away from the oft-voiced criticism that this necessarily results in technological determinism. The aesthetic, philosophical and sociological aspects of the concept of “reflexivity” are too complex to discuss fully in this article, but crucial for my analysis of socially engaged media art is that the term is restricted to the “field of competence” (Greenberg) of “new media as art forms” (McLuhan) but is also interpreted as a form of action: i.e. as an active reflection upon the function of art in the complex mediatic environment of culture and society today—and “action” not in an activist but in a reflexive sense.

The theory applies to Nechvatal’s digital art, because on the one hand the artist stays close to the self-critical tradition of modernist painting in a Greenbergian sense, but on the other he reinvigorates the idea of medium by embracing hybrid electronic media in the spirit of McLuhan. In Nechvatal’s words: “My practice and craft paradoxically defends Modernism as well as it celebrates the radical plurality of a form of knowing that is undeniably characteristic of contemporary electronics” [9]. Further, “I want to bridge these cultures [traditional painting and electronic media], because the speed of the technologically produced image today is both a blessing and a kind of problem, but the reflexivity of painting is also both a gift and a problem” [10]. Nechvatal’s project takes a reflexive media art approach to the technical possibilities of artificial intelligence programming for the artistic simulation of color-affecting viruses. In collaboration with programmer Stéphane Sikora, the artist developed a custom-made software program (or *Eigen-programm*, as Vilém Flusser would call it [11]), which drives the behavior of these digital viruses. The program creates a form of *embedded aesthetics*—a term used to indicate that every degree of software is, to some extent, making its own decisions regarding how an art project will turn out—as the algorithms used condition the aesthetic permutations that might appear on the computer screen. The resulting reflexive operations in Nechvatal’s work can be related to the biological concept of *autopoiesis* as developed by the second wave of cyberneticians, such as Humberto Maturana and Francisco Varela. Through a complex and self-generating process of doubling-back of the previously used

system of code, the artist not only develops his digital palette but also reflects on an entirely new digital genre of painting. In Nechvatal’s words: “Digital painting is a precise reaction to critical things as they are now in the hyperactive information age while maintaining the position of reflective criticality found in the long tradition of silent and immobile painted surfaces” [12]. Overall, Nechvatal’s project exemplifies a first category of socially engaged new media art: a distinct form of digital art that technologically and aesthetically “expands” an already existing medium such as modernist painting in a critical and reflexive way, while investigating a contemporary form of abstraction infused with social content. Or, as the artist formulates it: “I don’t want to leave our social political reality out of art, and escape into a sort of pure abstraction” [13].

LEGRADY’S DATABASE ART

The database projects of George Legrady can also be interpreted as socially engaged. Databases are everywhere—they permeate society. Whether we travel, go to a shopping mall, do online banking, stay in the hospital or log onto social media, our information is stored, retrieved and processed. Databases are thus an integral part of the information and network society. In the succinct words of Legrady: “We are data” [14]. Lev Manovich even defines the database as a new cultural—even symbolic—form: “Following art historian Erwin Panofsky’s analysis of linear perspective as a ‘symbolic form’ of the modern age, we may even call database a new symbolic form of a computer age.” The database, according to Manovich, “becomes the center of the creative process in the computer age” [15]. In *Making Visible the Invisible* (2004–2014) for the Seattle Public Library, Legrady investigates the effects of this new “cultural form” on the socio-cultural realm and communicates this analysis to the public. In response to a public call of the library for artworks that “reflect on aspects of the fundamental nature of the library as an organizational structure,” [16] Legrady conceptualized the institution as a data exchange center, fed by the circulation activities of the library’s patrons. Every checked-out item produces basic information—or “meta data”—such as time and date, item type, barcode, title and subject. With four computer visualization animations, developed in collaboration with programmers Rama Hoetzlein and Mark Zifchock, the project shows this data on six LCD screens above the librarian’s information desk (Fig. 2). By making visible the usually hidden core of the library’s database and transforming it into an interactive data center, the work aptly intersects with current debates on the physical and the digital library (Is the first still useful? Should it rethink its cultural and public functions?), or the opening-up of municipal archives to online public access.

Legrady’s 10-year database project can be interpreted as a reflexive media art practice because his digitally based, new artistic medium reflects upon itself on multiple technological, aesthetic and sociocultural levels. On the technological level, Legrady’s project investigates the rule-based algorithmic processes and parsing techniques of data-processing technology for the aesthetic display of selected data on the



Fig. 2. George Legrady, *Making Visible the Invisible*, Seattle Public Library, 2004. (© George Legrady)

screen. For this goal, the artist uses a wide range of artistic techniques known in information visualization, such as color-coding, spatial plotting, animation, visual metaphors and the organization of data through a balanced composition. The artist considers the database as an aesthetic medium in both Greenberg's self-critical sense (What are the specific characteristics of the database as an artistic art form? What is its field of competence?) and Rosalind Krauss's idea of the reinvention of the medium "as something like a language" [17]. In Legrady's words: "The collection and juxtaposition of data as a means of aesthetic exploration can be understood as a form of a meaning-generating process, where meanings emerge through the organization of discrete elements according to rules not unlike linguistic structures" [18].

Given the structural impact of the database on society at large, Legrady's project also relates to the cybernetic concept of reflexivity as advanced by the sociologist Niklas Luhmann for analyzing social systems. Within the reflexive context of Luhmann's transformative social systems, Legrady's ambition to make visible invisible information can be said to raise critical questions on the criteria that govern data's visibility (Which data is made visible, and which data remains hidden from view?) and accessibility (Who can access which data under what circumstances?). Questioning both the "front end" (visual display) and "back end" (underlying codes) of database culture, the work aims to increase awareness of nothing less than its politics of code [19]. More specifically, the library's patrons are encouraged to discover how a database operates as a meaning-generating apparatus in culture and society and how they themselves are participating agents. "A unique feature is that these installations also function as data collection sites," Legrady writes, "as the public is activated and willingly participates, contributing information. Through this process, the artworks reflect back to the participants, giving insight in the operations of the way in which data can be compiled and visualized" [20]. With this citation we return to Luhmann's concept of reflexivity, especially as he relates it to agency, i.e. as the reflection by the members of

a social system on the structure of the system and the changes that occur in that system as a result of that reflection. Legrady's reflexive-media approach toward aesthetics thus goes beyond visual display and user experience to key conceptual questions concerning the database as such: How does the database impact society? What is the database as a cultural form? In contrast to Nechvatal, who creates a dialogue between his digital medium and the traditional medium of painting and focuses on a specific social problem (AIDS), Legrady explores the entirely new aesthetic medium of database and brings to the surface its broader sociocultural dimensions. This critical approach links Legrady's project to the institutional criticism of conceptual artists in the 1970s such as Hans Haacke and Marcel Broodthaers. Overall, Legrady's database art represents another category of new media art that can be categorized as "socially engaged," if that

term is interpreted to include more than art that literally engages in provoking social and political change.

BLAST THEORY'S MEDIA-REFLEXIVE GAMES

The work of Blast Theory is exemplary for the last category of socially engaged new media art discussed in this article: new digital forms of collaborative and interactive art that link physical and virtual spaces. Blast Theory's founding members—Matt Adams, Ju Row Farr and Nick Tandavanitj—relate their mixed-reality performances and location-based games to a form of social engagement that responds to the changes in society brought about by digital developments. In Blast Theory's straightforward words:

The group's work explores the social and political aspects of technology. It confronts a media-saturated world in which popular culture rules, using performance, installation, video, mobile and online technologies to ask questions about the ideologies present in the information that envelops us [21].

Blast Theory's game *Can You See Me Now?* (2001) exemplifies the socially engaged basis of their projects (Fig. 3). The game is a new kind of chase game that is played simultaneously in the virtual world of online gaming (by logged-in players) and the actual streets of an urban environment (by runners selected by Blast Theory). As is clear from their collaborative research essay "Reflection through Artistic Gaming," Blast Theory considers this work media reflexive in multiple ways:

We consider the learning that might potentially take place when an unusual perspective offered by a game provokes its players into reflecting on issues concerning the world around them, their relationship to other players, and the nature and role of games and related technologies [22].

Reflective, of course, is not the same as reflexive, and the two (nonetheless overlapping) terms have produced vastly different discourses in various disciplines such as art his-



Fig. 3. Blast Theory, *Can You See Me Now?*, 2001. (© Blast Theory)

tory, sociology and cybernetics. Blast Theory's use of the term "reflection," however, should be read in the context of the self-critical tendency of modern art in the postwar period, when it was conceptualized as a form of reflexivity in the context of the specific aesthetic medium. Blast Theory's game can thus be seen as a reflexive art form in the basic sense of self-criticality ("the nature of the game") and self-awareness ("reflecting on the world around us"). Blast Theory uses a wide range of mobile technologies, such as GPS, Wi-Fi, handheld computers and cell phones as artistic devices for making the gap between virtual and physical spaces experienceable. Some players have vividly described the effects of the disparities between the two worlds, in which the runners encounter obstacles within the city that are nonexistent yet experienceable for the players in the online game. The end result of Blast Theory's media-reflexive approach toward the whole question of virtuality is an "aesthetics of experience" in John Dewey's original sense of art with an experiential function embedded in everyday life. Blast Theory is a perfect example of artists who, in Bishop's words, "deeply reflect on how we experience, and are altered by, the digitalization of

existence." There is a historical link between Blast Theory and the Situationists in the 1950s and the 1960s, but the contemporary artist collective does not share the latter's political and ideological agenda nor their wish to change the world (understanding it is enough).

Given Blast Theory's concern about the way in which the digital media impact social relations within the context of everyday life, the concept of reflexivity as developed in sociology is relevant for the analysis of Blast Theory's work, which can be seen as a form of digital sociology through artistic means. In sociology, the concept of "reflexivity" was introduced in the early 1990s to investigate the relations between history and changing social structures in the face of the upcoming information society. In *An Invitation to Reflexive Sociology* (1992), Pierre Bourdieu advances the idea of a methodical reflexivity, which encourages sociologists to engage in a "sociology of sociology." Reflexive sociology as elaborated by Bourdieu is a self-referential methodology of social research, which turns methods of constructing the research object back on themselves so as to produce a more accurate understanding of the social world. Bourdieu, in other words, mobilizes the idea of "reflexivity" to uncover disciplinary assumptions, which includes a reflection on the role of the researcher in the creation of knowledge. Anthony Giddens even goes a step further by introducing the concept of "reflexive modernization," which draws modernization as a whole into a self-reflexive project. Giddens calls it a reflexive modernity because it ends modernity as we knew it: "Reflexivity" is seen as transformative of the critical frameworks through which we used to understand the modern world,

and the discourses through which objects and subjects were made intelligible. He recognizes the need to address contemporary conditions (technological, economic, global, etc.) and their impact on societal structures and institutions. Giddens thus opts for reforming the discipline of sociology as a science of the present [23]. Considering that media art is still often not integrated within art history even though it has long been an integral part of contemporary artistic production, this discipline, with its long and reputable tradition, could benefit from a disciplinary reflection on its field as sociology did at the end of the last century. This would enable it to evaluate socially engaged new media art in the information and network society.

CONCLUSION

This article concludes that the ideological concept of socially engaged art should be broadened to include less explicitly politically biased artworks that aim to understand social issues, challenges and concerns that arise with digital culture. New media art is in part socially committed in the conventional sense, but this opening-up of the category would enable it

to be more inclusive of a considerable amount of digital art forms that respond to the information society from a less activist but no less critical standpoint. This article identifies various kinds of new media art that critically reflect on the information and network society: the new digital form of abstract art; a new media art form that critically and publicly reflects upon its own sociocultural role and function; and a multimedia art form that explores the social use and impact of new mobile technologies in the hybrid spaces we inhabit today. The proposed categories do not intend to capture all types of digital new media art that can be classified as socially engaged. Other categories are conceivable, such as the conventional medium that reinvents its medium from within. I am thinking of the digital transformations of photography, of which photographers such as Thomas Ruff and Trevor Paglen are investigating the aesthetic, technological and cultural, as well as ethical and political, implications. The three proposed categories could also be further divided into subcategories: The Internet, for example, can be seen as a specific category of the database (the database of databases) in which socially engaged art takes place, from the hacker's art of Jodi in the early days of the Internet to the explorations of the uses, genres and codes of the Web by Constant Dullaart today. Similarly, the work of other artists could be added to each category. Golan Levin, Ben Ruben and Mark Hansen, for instance, have all created socially relevant database projects. The selected artists are just a few recognized pioneers in the proposed categories of socially engaged media art. The point is not to give a complete list but rather to provide concrete evidence that a wide range of media art with social ambitions and

intentions at its core exists. While it is doubtlessly true that there also exists a category of nondigital art that confronts contemporary media conditions and their cultural, political, sociological and other effects on the information society—such as the work of Pierre Huyghe or Haroun Farocki—this is no convincing reason for excluding new media art from the list of socially engaged art in contemporary art history. Media art is *art*, after all, and it is part of the same art history. The second conclusion of this article, in fact, is that new media art and a socially engaged artistic practice form a strong couple.

Aesthetic theories developed in media studies tend to develop formal theoretical approaches without much concern for the sociocultural dimensions of new media art. Good examples are Mark Hansen's *A New Philosophy of New Media* (2004), Oliver Grau's *Virtual Art* (2003) and *Performing Mixed Reality* (2011) by Steve Benford and Gabrielle Giannachi. All these books deal with crucial theoretical and epistemological concepts and questions of media art (embodied aesthetics, illusion and immersion, mixed reality and augmented reality), but socially relevant new media art necessitates additional media aesthetic theories. The conceptual vocabulary of reflexive media art theory offers a framework that not only facilitates an analysis of new media art on an aesthetic and technological level but also considers its sociopolitical content and cultural meaning. From a disciplinary perspective, the proposed reflexive media art theory also leads to a third and final conclusion: that contemporary art history must reconsider the premises of its own discipline in order to properly address the concept and role of art in the information and network society.

Acknowledgments

I would like to express my sincere thanks to Matt Adams (Blast Theory), George Legrady and Joseph Nechvatal for their collaboration and to Max Bruinsma and Marek Wieczorek for their editorial support.

References and Notes

- 1 Claire Bishop, "The Social Turn: Collaboration and Discontents," *Artforum* (February 2006) pp. 178–179.
- 2 Edward Shanken, "Contemporary Art and New Media: Towards a Hybrid Discourse," Art Basel, Salon Art and Technology, 19 June 2010, <www.artbasel.com/en/About-Art-Basel/Art-41-Basel/Salon>, accessed 20 August 2013.
- 3 Geert Lovink, "New Media Arts: In Search of the Cool Obscure: Explorations beyond the Official Discourse," in Geert Lovink, *Zero Comments: Blogging and Critical Internet Culture* (New York: Routledge, 2008) p. 40.
- 4 Claire Bishop, "Digital Divide: Claire Bishop on Contemporary Art and New Media," *Artforum* (September 2012) p. 434.
- 5 Bishop [4].
- 6 For Nechvatal's citation, see <www.youtube.com/watch?v=up29Rc-ksfM>.
- 7 Interview with Joseph Nechvatal, <www.youtube.com/watch?v=NSyN_wlvAog>.
- 8 Sjoukje van der Meulen, *The Problem of Media in Contemporary Art Theory (1960–1990)* (PhD dissertation, Columbia Univ., New York, 2009). I am reworking the results and conclusions of my dissertation into the book manuscript with the provisional title, "Beyond the Divide of Art and New Media: Blueprint for a Reflexive Media Art Theory."
- 9 Joseph Nechvatal, "Fast and Beautiful: The A-Life of Undeading of Painting," in Joseph Nechvatal, *Towards an Immersive Intelligence* (New York: Edgewise, 2009) p. 66.
- 10 van der Meulen [8].
- 11 Sjoukje van der Meulen, "Between Benjamin and McLuhan: Vilém Flusser's Media Theory," *New German Critique* 110, 37, No. 2, p. 206 (Summer 2010).
- 12 Nechvatal [9] p. 64. In my reading of Nechvatal's digital project, his computer animations relate to a new genre of painting rather than a digital form of video. I address this issue further in my book.
- 13 van der Meulen [8].
- 14 George Legrady, "Making Visible the Invisible, Seattle Library Data Flow Visualisation," in *Digital Culture & Heritage* (Paris: Bibliothèque Nationale de France, 2005), p. 3.
- 15 Lev Manovich, "Database as Symbolic Form," in Lev Manovich, *Database Aesthetics, Art in the Age of Information Overflow* (University of Minnesota Press, Minneapolis, 2007) p. 40.
- 16 Legrady [14] p. 5.

- 17 Rosalind Krauss, “. . . And Then Turn Away?” An Essay on James Coleman,” *October* 81 (Summer 1997) p. 6.
- 18 Legrady [14] p. 3.
- 19 Richard Rogers, *Information Politics on the Web* (Cambridge, MA: MIT Press, 2006). Rogers draws the distinction between back end and front end to describe the politics on the Web, or the database of all databases.
- 20 George Legrady, “Culture, Data and Algorithmic Organization,” *Leonardo* 45, No. 3, p. 286 (2012).
- 21 See Blast Theory’s website, <www.blasttheory.co.uk/our-history-approach>, accessed 1 April 2013.
- 22 Steve Benford et al., “Provoking Reflection through Artistic Games,” *Proceedings of the CHI Conference on Human Factors in Computing Press* (University of Nottingham) p. 2004.
- 23 Pierre Bourdieu and Loïc J.D. Wacquant, *An Invitation to Reflexive Sociology* (Chicago: University of Chicago Press, 1992); Ulrich Beck, Anthony Giddens and Scott Lash, *Reflexive Modernization: Politics, Tradition, and Aesthetics in the Social Order* (Cambridge, UK: Polity Press, 1994).

Manuscript received 26 November 2014.

SJOUKJE VAN DER MEULEN is an art critic and theorist with a research focus on media aesthetics in contemporary art since 1945. She received her PhD from Columbia University in 2009 and was until 2015 a lecturer in the Department of Media Studies: New Media & Digital Culture at the University of Amsterdam.

ANNOUNCING

Leonardo Art Science Evening Rendezvous (LASER)

Since 2008, the Leonardo Art Science Evening Rendezvous (LASER) series of lectures and presentations on art, science and technology has provided spaces for progressive thought leaders to come together to form community and explore the intersections of disciplinary thinking. Owing to its success and popularity, LASER has expanded beyond its birthplace in the San Francisco Bay Area, first to the U.S. East Coast, then across the Atlantic to London—the home of the first European LASER—and today continues to expand to new locations nationally and internationally. We thank all of those who have spoken at, participated in or attended LASER events throughout the years. We owe a special thank you to Piero Scaruffi, LASER founder and chair, for his inspiration and continued dedication, and to the growing list of LASER hosts around the world. To follow LASER events, see <www.leonardo.info/isast/laser.html>.