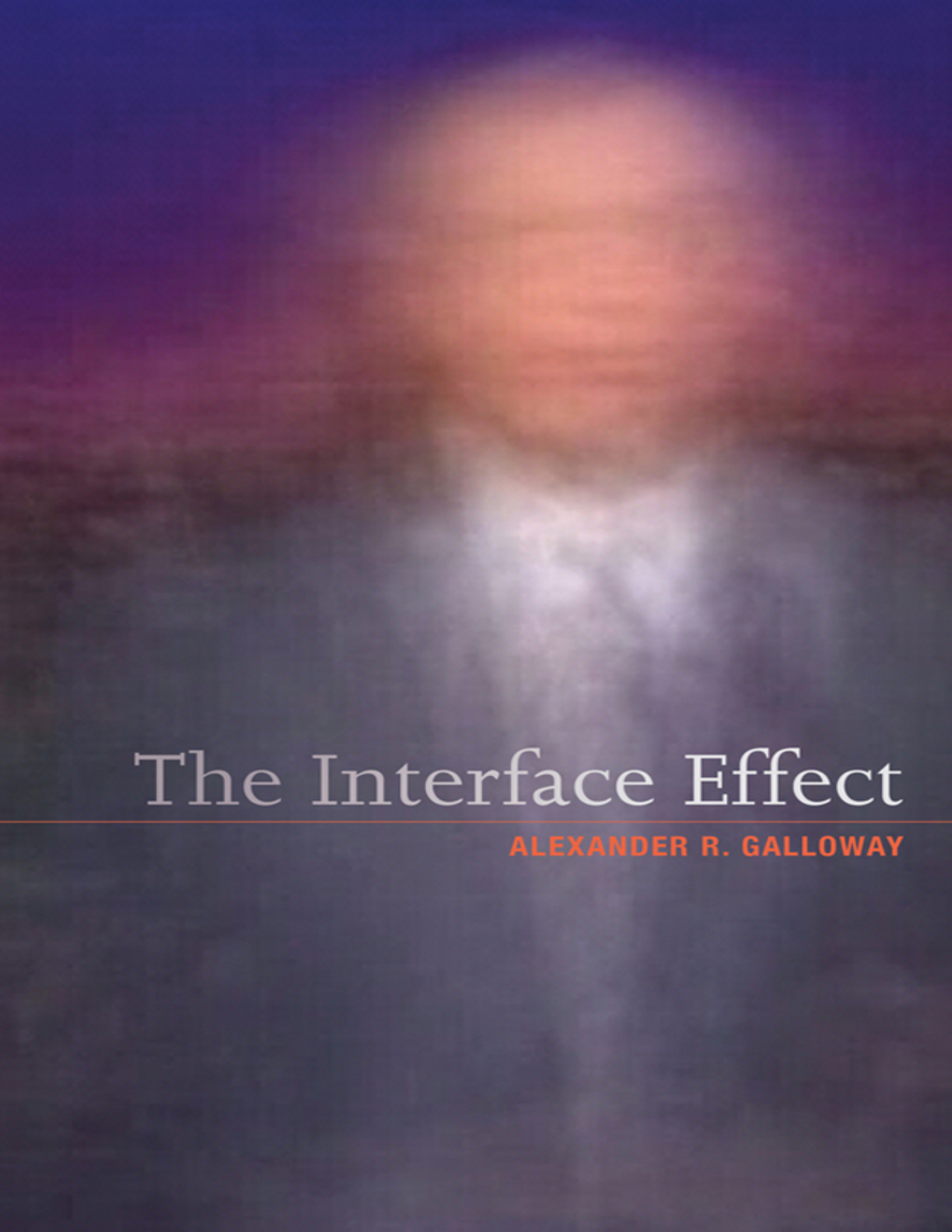
The Interface Effect
ALEXANDER R. GALLOWAY

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For Reed Fulton, Amos Wood, and Frances Wood, writers

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Preface

This book is about windows, screens, keyboards, kiosks, channels, sockets, and holes – or rather, about none of these things in particular and all of them simultaneously. For this is a book about thresholds, those mysterious zones of interaction that mediate between different realities. The goal of the book is twofold, to define the interface, but also to interpret it. Interfaces are not simply objects or boundary points. They are autonomous zones of activity. Interfaces are not things, but rather processes that effect a result of whatever kind. For this reason I will be speaking not so much about particular interface objects (screens, keyboards), but *interface effects*. And in speaking about them I will not be satisfied just to say an interface is defined in such and such a way, but to show how it exists that way for specific social and historical reasons. Interfaces themselves are effects, in that they bring about transformations in material states. But at the same time interfaces are themselves the effects of other things, and thus tell the story of the larger forces that engender them.

While addressing many different aspects of interface culture, the chapters of the book all illustrate, more or less, a specific interpretive method. The method shares a great deal with what Fredric Jameson calls *cognitive mapping*.[1] The times have changed slightly since he first broached the topic, and so too the present interests are somewhat different than his. But the central notion is the same, that *culture is history in representational form* (if Jameson will allow such a stunted paraphrase). The representational form is never a simple analog, though. It is a map, a reduction or indexical and symbolic topology. This “reduction” is a necessary trauma resulting from the impossibility of

thinking the global in the here and now, of reading the present as historical. Thus the truth of social life as a whole is increasingly incompatible with its own expression. Culture emerges from this incompatibility. The same goes for the interface: it emerges from this incompatibility; it *is* this incompatibility.

Yet one might also invert the claim: socio-cultural production indeed "expresses" social life as a whole, which itself is in something of a perpetual crisis – whether that crisis be called planetary civil war, global warming and ecological collapse, increasing material fragmentation and exploitation, or simply capitalism, which after all is the engine for all the others. (Jameson admittedly follows the same broad declension narrative evident in all manner of modern-era criticism from Walter Benjamin and Theodor Adorno to Max Weber, Ferdinand Tönnies, and even of course the later Martin Heidegger.)[2] Hence specific historical traumas migrate into an excessively large number of possible representational forms.

But the cognitive map is also something more than the mirror of geopolitical crises. It is subject formation plain and simple, as the individual negotiates his or her own orientation within the world system. This means that the cognitive map is also the act of reading. It is the hermeneutic process itself, replete with all the inconsistencies and half-truths that accompany the interpretive process. So it is a trauma – in the psychoanalytic sense – as a necessary cutting that is constitutive of the self. But it is simultaneously a subject-centered induction of world experience – in the phenomenological sense. The interface effect is perched there, on the mediating thresholds of self and world.

In the pages that follow, I shall attempt to migrate Jameson's methodology slightly in the direction of new media, as any amount of historical specificity today would

demand. The reader will need to determine exactly how this migration takes place, what it means, and indeed if it is successful. But the spirit of the thing is that, as will become more evident in Chapter 2 on ideology, *digital media ask a question to which the political interpretation is the only coherent answer*. In other words, digital media interpellate the political interpretation. If "digital media" is understood as our contemporary techno-culture and the "political interpretation" is understood as an attempt to read the present as material history, then indeed we are deep in Jamesonian territory.

For poetic flourish though, if nothing else, I might propose a new name for this project, *the control allegory*. Further definition of such a method, as it reveals itself in the analysis of a number of artifacts drawn from interface culture, is the project of the pages to come.

Notes

1 Cognitive mapping is addressed in a number of Jameson's texts including the following: "Class and Allegory in Contemporary Mass Culture: *Dog Day Afternoon* As a Political Film," in *Signatures of the Visible* (New York: Routledge, 1992), 54; "Introduction" and "Totality as Conspiracy," in *The Geopolitical Aesthetic: Cinema and Space in the World System* (London: BFI, 1992); "Cognitive Mapping," in *Marxism and the Interpretation of Culture*, Cary Nelson and Lawrence Grossberg, eds (Urbana, IL: University of Illinois Press, 1988), 347–360; "Marxism and Postmodernism," in *The Cultural Turn* (New York: Verso, 1998), 49; and *Postmodernism, or, The Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991), 51–54, 409, 416–418.

2 Declension narratives dot Heidegger's later work. It is no secret that Heidegger disliked the sort of life brought on in

the twentieth century by capitalism and industrialization: “The decline has already taken place. The consequences of this occurrence are the events of world history in this century. […] The laboring animal is left to the giddy whirl of its products so that it may tear itself to pieces and annihilate itself in empty nothingness” (Martin Heidegger, *The End of Philosophy*, trans. Joan Stambaugh [New York: Harper and Row, 1973], 86–87). The tone is nevertheless evident, if less cataclysmic, in his early work as well. To take one section in isolation: “Dasein plunges out of itself into itself, into the groundlessness and nullity of inauthentic everydayness,” writes Heidegger, after insisting that the concept of “falling” should not evoke any negative connotations! (See Martin Heidegger, *Being and Time*, trans. John Macquarrie and Edward Robinson [New York: Harper and Row, 1962], 223.) If anything, Heidegger’s work is special because it entirely synthesizes such an internally obfuscated and withdrawn subject-position directly into a theory of being, rather than either attempting to refine it to perfection (Hegel) or overcome it in pure rejection (Nietzsche).

Acknowledgments

This book constitutes the final volume of *Allegories of Control*, a trio of publications on networks, games, and interfaces that examines the politics and aesthetics of information technology.

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The introduction incorporates material from "What is New Media? Ten Years After *The Language of New Media*," *Criticism* 53, no. 3 (Summer 2011): 377–384, "The Anti-Language of New Media," *Discourse* 32, no. 3 (Fall, 2010): 276–284, and "If the Cinema Is an Ontology, the Computer Is an Ethic" in *Kittler Now*, edited by Stephen Sale (Polity, forthcoming). Chapter 1 was first published in English in *New Literary History* 39, no. 4 (Autumn 2009): 931–955 and in German in the International Flusser Lecture pamphlet series as *Außer Betrieb: Das müßige Interface* (Cologne: Walther König, 2010). Chapter 2 was first published as

“Language Wants To Be Overlooked: On Software and Ideology,” *Journal of Visual Culture* 5, no. 3 (December 2006): 315–331. Chapter 3 was first published in *Theory, Culture & Society* 28, nos. 7–8 (December 2011): 85–102. Chapter 4 was first published as “*24/7*, *16.8*: Is *24* a Political Show?,” *Afterimage: The Journal of Media Arts and Cultural Criticism* 35, no. 1 (July–August, 2007): 18–22 (see www.vsw.org/ai). The postscript was first published as “Does the Whatever Speak?” in *Race After the Internet*, edited by Lisa Nakamura and Peter Chow-White (New York: Routledge, 2011). I thank these journals and presses for allowing this material, now altered and updated, to reappear here in a new form.

Introduction: The Computer as a Mode of Mediation

What Are New Media?

First a frank assessment: There are very few books on new media worth reading. Just when the nay-sayers decry the end of the written word, bookstore shelves still overflow with fluff on digital this and digital that. And even as a countervailing chorus emerged that was more skeptical of the widespread adoption of new media – in France Jacques Chirac once spoke disparagingly about "that Anglo-Saxon network" (for, as anyone knows, in the beginning there was Minitel) – it was evident that the Internet revolution had already taken place in the US, in Europe, and elsewhere. Like it or not the new culture is networked and open source, and one is in need of intelligent interventions to evaluate it. In the years since its original publication in 2001, Lev Manovich's *The Language of New Media* has become one of the most read and cited texts on the topic.[1] It is a key entry in the disciplines of poetics and cultural aesthetics, and has helped define the new field of software studies. So I will start with Manovich, deferring to the influence of the text, and betting that it might already be familiar to readers. The book is not without its limitations, however, and perhaps today we may begin to look again on the text with the fresh eyes of historical distance, and, using the book as a springboard into other topics, reassess many different aspects of cultural and aesthetic life, from our tools to our texts, from our bodies to our social relations, from our digital objects to our digital interfaces.

Internet culture spawned *The Language of New Media*, particularly the first generation of 1990s web culture. What

this means is that the book is the product of a specific sliver of history when the conditions of the production and distribution of knowledge were rather different than they are today. What was once a subversive medium is now a spectacle playground like any other. The first phase of web culture, one must admit, carried a revolutionary impulse; call it the Saint-Just to today's imperial era. Manovich's book is a product of that first phase. Walls were coming down, hierarchies were crumbling, the old brick and mortar society was giving way to a new digital universe. On the one hand, new virulent ways of looking at the world were forming with unprecedented ferocity – sometimes conveniently labeled the "California ideology" – coalescing around the neoliberal impulse to open source everything (information wants to be free, desire wants to be free, capital wants to be free) and the promise to liberate mankind in ways only dreamed of by our forebears in the new social movements of the 1960s. On the other hand, amid this process of leveling, a new Republic of Letters began to form using email and bulletin-board systems that seemed to offer a real intellectual and social community devoted to the exploration and critique of new media. *The Language of New Media* is a product of this community. Discussed and refined in online forums like Nettime, and partially previewed prior to publication on the email list Rhizome (a web site named enthusiastically, if naively, after the emancipatory topology described in Deleuze and Guattari), *The Language of New Media* was written for, within, and against the new Internet culture of the late 1990s.

Looking back like this is not to suggest that we should dwell on previous decades with nostalgic yearning for a simpler time, nor that Manovich's book has nothing more to say to us today. On the contrary, the simple premise of the book – that new media may be defined via reference to a foundational language or set of formal and poetic qualities

identified across all sorts of new media objects, and indeed across historical and social context – suggests the opposite approach: we are *required* to think critically and historically because of the very fact that the digital is so structural, so abstract, so synchronic.

Manovich's strength lies in the description of digital technologies as poetic and aesthetic objects. His book aims to be a kind of general textbook on new media. Manovich begins from his own experience with software, then he extends his observations so that the "telling detail" becomes a piece in a larger system.

Is Manovich's view on the world a modernist one? I think so. His is a modernist lens in the sense that he returns again and again to the formal essence of the medium, the techniques and characteristics of the technology, and then uses these qualities to talk about the new (even if he ends up revealing that it is not as new as we thought it was). This is illustrated most vividly in the conceptual heart of the book, part one entitled "What Is New Media?" Here Manovich offers a number of defining principles for digital technology, and at the same time debunks several of the myths surrounding it. The five principles – numeric representation, modularity, automation, variability, and transcoding – are not to be understood as universal laws of new media. Rather, they describe some of the aesthetic properties of data, and the basic ways in which information is created, stored, and rendered intelligible.

Scattered throughout the book, Manovich advances a number of aesthetic claims that have become commonplace parlance in the discourse on digital interfaces, including the idea of a "logic of selection," the importance of compositing, the way in which the database itself is a medium, the emphasis on navigation through space, the reversal of the relationship between syntagm and paradigm, the centrality of games and play, the waning of temporal montage (and

the rise of spatial montage), and many other observations. All of these concepts and claims are now taken for granted in the various debates that make up today's discourse on new media.

Dissent exists of course. Given that the operative question is "What Is New Media?" we should remember that more than one response exists to such a question.[2] It is clear where Manovich puts his favor: new media are essentially *software applications*. But others have answered the same question in very different ways. There are those who say that hardware is as important if not more so than software (Friedrich Kittler or Wendy Hui Kyong Chun), or those who focus on the new forms of social interaction that media do or do not facilitate (Geert Lovink or Yochai Benkler), or even those who focus on networks of information rather than simply personal computers (Tiziana Terranova or Eugene Thacker). Perhaps because of the wide degree of latitude afforded by the topic, Manovich's book has elicited a healthy stream of dialogue and debate since its original publication. I for one consider his claim about "the myth of interactivity" (55) to be misguided: yes, the term "interactive" is practically meaningless due to overuse, but that does not mean the term should apply willy-nilly to static works of art. But such quibbles are neither here nor there.

Rather, I would like to spotlight two issues of more profound significance that are worth addressing in the book. The first has to do with *cinema*, the second with *history*.

As the opening pages divulge, the dirty little secret of *The Language of New Media*, and the detail that reveals Manovich's first passion, is this: cinema was the first new media. New media did not begin in the 1980s in Silicon Valley; it began a hundred years prior at Étienne-Jules Marey's Station Physiologique in the outskirts of Paris. The reason for this is that cinema is the first medium to bring together techniques like compositing, recombination, digital

sampling (the discrete capture of photographic images at a fixed rate through time), and machine automation, techniques that, of course, are present in other media, but never as effectively as the singular synthesis offered by the cinema. Thus, the technique of layering inside Photoshop is simply the same technique used in the color key effects afforded by video, or the cinematic convention of shooting actors standing in front of a rear-screen projection backdrop. Or to choose another example, the binary zero-and-one samples of a digital music file are also present decades earlier in the on and off regularity of a single film frame transiting across the projector's beam, stopping for a split second, and then moving again. For Manovich the flicker of film was always already a digital flicker.

With such fuel for controversy, many were quick to confront Manovich on his claims, perhaps most notably Mark B. N. Hansen in his book *New Philosophy for New Media*. Hansen acknowledges the influence of *The Language of New Media*, writing that "Manovich's depiction of digital technology is undoubtedly the most rich and detailed available today."[3] Yet he also argues that Manovich's book is tinted by an over investment in the cinematic. Manovich's position "extends the sway of the 'cinematic' in the narrow sense, and in particular serves to ratify cinematic immobility *as the default condition of the human-computer interface*."[4] (Yet Hansen's subsequent claim, that Manovich cannot think beyond the rectilinear cinematic frame, is unconvincing, given Manovich's argument in the book about the waning of temporal montage and the rise of spatial montage, or what is often simply called "windowing.") In short, Manovich's greatest trick, the cinema, is also, in the eyes of some critics, his greatest vulnerability.

In addition to cinema, a second large issue looms in the book, that of history. Would it be entirely correct to say that this book has no interest in the social, that it has no interest

in the political, that it is blinded (by poetics and formal structure) from seeing history itself? As with anyone who gravitates to pure poetics, Manovich is not immune to such questions. Like some of his critics, I too am concerned by the emphasis on poetics and pure formalism. One might think of Manovich as the polar opposite of someone like Fredric Jameson and the commitment to what he calls the "poetics of social forms." One sees the poetics in Manovich, but one loses the social forms. So there is something to be said for the argument that Manovich is participating in the tradition of those media theorists, like Kittler or Marshall McLuhan, who, while they may discuss the embeddedness of media systems within social or historical processes, ultimately put a premium on media as pure formal devices. (Kittler's politics are complicated, but in general he falls prey to some of the same traps of nostalgia and Hellenistic longing as his romantic forebears; McLuhan knew which way the wind was blowing in his public persona, but in private was a good traditional catholic who was more than a little unnerved by the social upheavals happening around him.)

Near to his heart, Manovich opens the book with Dziga Vertov. Featuring the Soviet filmmaker so prominently did not go unnoticed by the intellectual establishment. In the following passage he is held at arm's length by the editors of the journal *October*, a publication known to have a special relationship to the avant-garde as well as poststructuralism and continental philosophy:

> It is thus with some interest that we witness the usage of a crucial avant-garde film such as Dziga Vertov's *Man with a Movie Camera* as the opening device of a recent text on the "language of new media," just as it once provided the signal image some years ago for the very first issue of this journal. And it is also with some doubt that we listen to these same theoreticians of the new digital media proclaim that cinema and photography –

> with their indexical, archival properties – were merely preliminary steps on the path to their merging with the computer in the *über*-archive of the database. Much of what was most important to cinema and photography is wiped away by such a teleology. And much of what seems most critical in contemporary artistic practice reacts to just such an erasure.[5]

Going a step further, Brian Holmes continues this line of dissent, as he bemoans what he sees as Manovich's "smug insistence that the new media were essentially defined by a certain kind of rhythm, a certain multiplication of screens, a certain connection to databases, etc. – in other words, that the new media were essentially defined by the dominant trends of contemporary capitalist society."[6]

While such dismissals might be seductive, here too I am not entirely convinced, and perhaps against my better judgment wish to offer something of a defense on his behalf. Yes, Manovich refuses a specific kind of American or European politico-historical critique of media technologies, the kind we might associate with any number of theorists on the left, from Louis Althusser, to Jean Baudrillard, to Guy Debord, or even today with Giorgio Agamben or Bernard Stiegler. But to understand Manovich, one must understand two important aspects of his work.

In an important short essay from 1996, "On Totalitarian Interactivity," Manovich admits that he sees digital interactivity as a type of political manipulation. He harbors a deep-seated phobia of political ideology, due largely to his youth spent in the Soviet Union:

> As a post-communist subject, I cannot but see [the] Internet as a communal apartment of [the] Stalin era: no privacy, everybody spies on everybody else, [an] always present line for common areas such as the toilet or the kitchen. Or I can think of it as a giant garbage site for the