Friedrich A. Kittler is Professor for Aesthetics and Media History at the Institute for Kunst- und Kulturwissenschaften (Art and Cultural Studies) at the Wilhelm von Humboldt University, Berlin. He is the author of numerous books and essays on literary criticism and media theory, including Aufschreibesysteme 1800/1900 (1985), which has been translated as Discourse Networks 1800/1900 (1990). Kittler, who studied literature in Freiburg, has been influential since the late seventies in bringing a blend of poststructuralist thought, summed up in the writings of Derrida, Foucault, and Lacan, to German universities and thereby displacing a Gadamer-informed hermeneutics with a discourse analytical approach in literary studies. His earliest books, such as Der Traum und die Rede (1977) or Dichtung als Sozialisationsspiel (1979), in which literature is treated as a “site at which discourses intersect and converge upon each other, without entering into the unity of theory or meaning,”1 establish the pattern for his later work on computer technology. As the title of a volume edited by Kittler, Die Austreibung des Geistes aus den Geisteswissenschaften (1980), illustrates, his concern is to restore to the humanities, and especially to the philologies, a theoretical basis in a culture in which literature can be seen as one function among many of communication technologies. Thus Kittler applies the term “Aufschreibesystem,” a term coined by the Geisteskranker jurist Daniel Paul Schreber and which literally means “system of writing down” or “notation system,” to a “network of technologies and institutions that allow a given culture to transmit, record and process relevant data.”2 Technologies, such as the printing press, and institutions, such as literature and the university, give rise to and provide, as Kittler writes, the preconditions for literary studies in the age of Goethe. Yet despite being itself a product of print technologies, literary studies neglect the aspect of literature summed up as data processing, privileging instead a hermeneutical meaning or a sociological reflection on the conditions of production. The rise of the technological recording media around 1900 marks a caesura within literary studies. “As long as no film and no phonograph, no computer and no microprocessor had broken the immemorial monopoly of

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textual data processing, literary criticism could well ignore the very materiality of its objects. The thought of poets and the poetry of thinkers remain favorite topics of Geistesgeschichte, bourgeois ideology and industrial revolution favorite topics of literary sociology—but as for the technical status of books themselves, idealism and materialism are equally blind.” As the sequel to Discourse Networks 1800/1900, Kittler’s Grammophon Film Typewriter examines three technologies arising at the turn of the century that precipitate networks whose function no longer corresponds to the nineteenth-century positivism of “man,” history, or Geist. Kittler thus situates literary studies in the context of the alphanumeric code within which technology today operates when he writes that “all literature stands since the turn of the century under the mandate of regulating its relationship to the technological recording media.”

Friedrich Kittler’s concept of media can be seen to address the need within the humanities to develop an adequate conceptual vocabulary for dealing with technology and the way it is embedded in human experience. At a time when the concept of the ‘cultural’ has established itself as something like a master-trope in the humanities, preying on and displacing the notion of the ‘textual’ as used in literary criticism and the ‘social’ as in social history, Kittler’s concept of media seeks to account for the technological transformation of knowledge in an electronic culture. Whereas in North America, “culture” provides the critical differences necessary for the motor of theory, in Germany the technological “media” supply theory’s point of departure. A discipline which takes “culture” as its object of analysis could be prone, by virtue of its lack of foundation in either a philologic or sociologic tradition, to go in the direction of a turn-of-the-century Kulturkritik, which would leave the two hundred year-old “national” paradigm within literature departments intact in the form of the “cultural.” The concept of media as applied in German media theory places a new perspective on the analysis of culture. Kittler borrows the concept of media from film studies and generalizes it to apply it to all domains of cultural exchange. Literature, a function of cultural exchange, can no longer be said to be master in its own house since the explosion of the technological media have burst its monopoly on language. “The concept of culture,” writes Kittler, “that attempts to protect the alphabet from every intrusion of numbers will not be tenable for much longer. If that cultural technology, writing, based on the employee profile of certain American firms, requires to some extent everyday speech, as well as formal languages, the humanities will have to acknowledge that they have always worked with code systems and draw the necessary methodological conclusions.” Thus Kittler’s “post-hermeneutic” brand of literary criticism becomes, as David Wellbery writes in introducing Kittler to an American audience, “a sub-branch of media studies.”
Friedrich Kittler's essay "The City is a Medium" represents a radical application of the concept of media to the field of culture. As one of the oldest media for the storage, processing, and transmission of knowledge—Kittler's definition, as well, for literature—the city, with its maximum transfer capacity between networks, provides a model for an analysis of culture in terms of the information channels and media technologies which determine cultural exchange. Long before the rise of the electronic media, the city has been the preferred site of theory. Attempts to theorize urbanity have focused on the city as the network par excellence of modernity. As the nexus of shocks, speed, and fragmentation, the city provides modernity with a framework for gauging the changes in human perception. It is, indeed, no coincidence that Kittler's essay on the city takes Vienna as its object of analysis. Vienna might be said to be the production site for a number of discourses of modernity, from the neurophysics of Ernst Mach and the Vienna School to Freud's psychoanalysis. The opening pages of Robert Musil's Vienna novel The Man without Qualities, in which "automobiles shoot out of deep, narrow streets into the shallows of bright squares" and "dark clusters of pedestrians" form "cloudlike strings," describe the city as a "rhythmically" pulsating network of intersections and collisions whose characteristic feature can be summed up with the anthropological insight that "cities, like people, can be recognized by their walk." From Friedrich Engels's description of the working class in Manchester subsisting in "black holes" to T. S. Eliot's image of London as that "unreal city under the brown fog of a winter dawn," the equation of urbanization with modernization stands under the dictate of the Marxist materialist maxim that "history is not, as it were, a person apart, using men as a means to achieve its own aims; history is nothing but the activity of man pursuing his aims." That "man" himself is subject to the technologies which enable his actions is an aspect that is often forgotten in the analysis of culture, especially in the case of the city where theses on the loss of the human potential abound. "As materials for culture," writes, for instance, Richard Sennett, "the stones of the modern city seem badly laid by planners and architects, in that the shopping mall, the parking lot, the apartment house elevator do not suggest in their form the complexities of how people might live. What once were the experiences of places appear now as floating mental operations." In the fettered consciousness of the city-dweller, the legacy of the Frankfurt School's theses on the "culture industry" returns: the media technologies, particularly the mass media, that is, film, television, radio, and so on, serve the forces of counter-enlightenment and "mass deception." The stones of the city would, indeed, be poor "materials for culture," if their function was solely that of storing and transmitting cultural knowledge; as Kittler emphasizes, the third function of media is data.
processing. The pile of stones “stores,” so to speak, a corpse, and the epitaph, in the case of more advanced cultures, “transmits” information to the living, but a tombstone would be just another rock, if not for the worms (or the angels) whose task it is to restore the landscape and remove the subject-corpses from beneath the rubble of history.

Walter Benjamin’s analysis of modernity, based on Baudelaire’s experience of nineteenth-century Paris in which “memories weigh more than stone” ("The Swan"), represents a departure from the historical agency of the subject in Marxism. Benjamin’s city as allegory of modernity prefigures his description of the relation of technology to human perception in terms of a collective Leibraum: “The manner in which human sense perception is organized, the medium in which it is accomplished, is determined not only by nature but by historical circumstances as well.” Media, as the example of the city as a medium of experience illustrates, exist not just in relation to the people that use them, but also to other media—the city is a medium because in it networks hook up to other networks.

McLuhan’s thesis that technology represents “extensions of man” describes the electronic media as a giant nervous system: “electric circuitry, an extension of the central nervous system. Media, by altering the environment, evoke in us unique ratios of sense perceptions. The extension of any one sense alters the way we think and act—the way we perceive the world. When these ratios change, men change.” Recent attempts in light of the internet to integrate McLuhan’s theses into a theoretical model capable of dealing with technology either take recourse to the pessimism of critical theory or celebrate the transcendental character of technology: “It is as if we have amputated not our ears or our eyes, but ourselves, and then established a total prosthesis—an automaton—in our place.” German media theory rejects the anthropological definition of “man” as cultural recording media; rather, it radicalizes McLuhan so as to allow for an understanding of the way in which technology plays a role in human experience and transforms cultural knowledge. The technological media distinguish themselves from McLuhan’s thesis, as Norbert Bolz writes, in their being “apparatuses that no longer reflect the performance of the peripheral sensory organs, rather imitate the command centers themselves.” In the lexicon of media studies the vocabulary of classical humanism is redefined: “Independent thoughts are cerebral software, Geist refers to every possible combination of data, and culture is the play on the keyboard of the mind.”

Current interest in urbanity might be said to be a symptom of an interest in technology that has been heightened by the internet, since the city, as Kittler states, represents “the most complex model of a
network." This complexity consists, as it does at this point in time for the internet, in its being chaotic. Any theory that attempts to differentiate between the city and the internet and thereby to describe a transformation of the public sphere in light of the information revolution, must first address the question of technology in terms of the materiality of the new media. The internet, states Kittler, distinguishes itself from past postal systems, or communication systems, in that “it functions in a different technological materiality, it is an emanation of the computer system—without the computer, no internet; however, just as well computer without internet.” The internet is not only a medium for the exchange of information, but it also represents that which cannot be represented anywhere else, least of all in books, the computer itself. One therefore has to address the status of writing in an electronic culture in which, as Kittler writes, the “last historical act of writing” took place at “the moment when, in the early seventies, the Intel engineers laid out some dozen square meters of blueprint paper . . . in order to design the hardware architecture of their first integrated microprocessor.” The appearance of computer programming and circuitry is not the end of writing, rather it implies the changed technological conditions of writing, that is, “We simply do not know what our writing does” (82). Literary studies has to address the technological materiality of writing, and this attempt “to elaborate the fate of writing within the technological field,” as Avital Ronell writes, entails an exploration into “a history of atopicality or of that which resists presentation: those things that are nonsubstantial, tending to obliterate the originariness of site . . . Electronic culture makes us ask (again) whether it is now obsolete or timely to write.”

Ten years after the first publication of Aufschreibesysteme 1800/1900, Kittler writes, “Discourse analyses and media histories, which ten years ago could not appear without an apologetic afterword, now present—because they are so much easier to realize than work interpretations—the museum of modern literature. But media histories would only be well-marketed nostalgia, if on the roundabout way of writing tools and information technologies they were to arrive again at the reliquary of poets or ideas. They stand and fall much more with the Heideggerian premise that technologies are not just tools. Thus they are exempt from the popular calculation of the loss today in light of the computer to textual sentences (through deletion or system failure), rather they seek to evaluate the effects that arise when, from the depths of circuitry and computation codes, writing itself returns.” Heidegger’s insight on technology forms the a priori for knowledge in Kittler’s media histories: the technological materiality of media consists in their capacity to produce, or bring forth. Thus Kittler aligns his work with a remark
attributed to Foucault: "My work lies along the lines of Heidegger. Heidegger demonstrated that the things that we take for granted in our encounters have long been objects brought forth [hervorgebracht] and determined by technology. I want to show the same for subjects." Media history, which distinguishes between "man" as the medium of historical and cultural transmission and the technological media, can thus be placed in the context of Foucault's interest in the technologies of power/knowledge. "That books, mnemotechnologies, and machine memories exist, must naturally be kept a secret, so long as memory is a quality or even a property 'of man.' The memory banks thus appear as organs, tools, further developments of a capacity that could also exist on its own, since it parodies its inventor and user. But if they don’t cry, then the schoolchildren for whom the first book is played back, laugh at these fairy tales. They haven’t invented it [the book] and they have to learn to use it. In the name of the analphabets, the confusion between the people and the memory banks in which they land must come to an end."24

Lytotard’s appeal to “give the public free access to the memory and data banks”25 will fall on deaf ears so long as the philologies continue to neglect Nietzsche’s insight into the inscriptive nature of our cultural mnemotechnics.26 Media studies underscore the existence of networks between technologies, as well as between man and his machines. Opening the memory banks to the public involves first and foremost opening the media to other media. When Wilhelm von Humboldt petitioned the King of Prussia in 1809 for the establishment of a university in Berlin, he not only addressed his request to the Prussian state, but also addressed the preexisting institutions of the city.27 In the city-medium Berlin there arose in 1809 a network that provided the conditions for a mastery of the modes of cultural knowledge when the city’s two academies of science, its library, its planetarium, its botanical garden, its fine arts and natural history collections were joined in the form of the university. But the founders of the university knew better than to assign these media—and the philological competency they enabled—to one channel; rather, as the reformer Johann Jakob Engel wrote, “There are objects of teaching which can be taught in books, but never be summed up by books alone, never alone through words; these things, such as handicrafts, the arts and factories, demand to be seen and experienced in the present.”28

The following interview took place on August 1, 1995 at the Institute for Aesthetics in Berlin, and coincided with the publication of the third edition of Aufschreibesysteme 1800/1900, which, next to Grammophon Film Typewriter (1986), forms the crux of Kittler’s attack on the institution of traditional literary criticism. The interview seeks to address the differ-
ences and similarities between Anglo-American cultural studies and German Kulturwissenschaften, which might be said to be a form of media studies. Humboldt University has, after the fall of the Berlin Wall, become the site of unification for literary theorists from disparate universities across Germany, who, like Friedrich Kittler, have been newly appointed to the Institute for Kulturwissenschaften. "We've been reading each other's writings for some twenty years," Kittler states, "and the question at this point is to see what we can accomplish now that we're finally together." From book to computer, media histories focus on the materialities of communication. Literature, which was once the realm of dissonant voices swelling in a babble of languages, can now be rewritten as an effect of media technologies on the alphanumeric code. Literary studies can learn from its medium at a time when writing takes place in the black boxes and computer circuitry which make our electronic culture possible. "How this came about—what no longer stands in books—still remains," as Kittler writes, "for books to write down [aufzuschreiben]."29

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NOTES

1 Friedrich Kittler, Der Traum und die Rede: Eine Analyse der Kommunikationssituation (Bern, 1977), p. 327; my translation. All translations are my own unless otherwise noted.


8 David E. Wellbery, "Foreword," Discourse Networks 1800/1900, p. xiii.


19 Friedrich Kittler, “Internet.”