Technology Romanticized: Friedrich Kittler's
*Discourse Networks 1800/1900*

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Some consider Friedrich Kittler's *Discourse Networks 1800/1900* (originally published in 1985 under the title *Aufschreibesysteme 1800/1900*) a rare and outstanding example of the German reception of contemporary French philosophy. David Wellbery, introducing Kittler to a broader English-speaking audience for the first time, praises the book for being not only “thoroughly informed by post-structuralism” (viii) but especially because it avoids a discussion of post-structuralist theory altogether, engaging instead in a radical application of its practice. Affirming Kittler's claim to radically break with hermeneutics, generally considered to be the trademark of German thought, Wellbery proffers yet another newly coined term: *post-hermeneutics*. According to Wellbery, post-hermeneutics would be a criticism that “stops making sense” (ix). And Kittler's book, indeed, seems to extend an invitation to forswake the enterprise of making sense.

Kittler draws upon nearly all the contemporary French philosophers giving the reader the impression of being confronted by a patchwork construed to reconcile elements generally held to be truly different. Assimilating the work of Derrida, Lacan, Deleuze and Guattari and rounding it off with McLuhan's doctrine “the medium is the message,” Kittler attempts to “materialistically” sur-

pass the Foucaultian discourse analysis which had informed his earlier publications. Discourse analysis, he argues, must be transformed into an "archaeology of the present" (369) by considering the material and technical conditions that permit discourse storage in the first place. A simple analysis of the rules governing discourse, their mechanisms for combining and excluding, is no longer of primary concern; instead, these rules themselves must be accounted for by the material factors found in every system that in any way stores or records information. The term Aufschreibesysteme (literally, "notation systems") is adopted from Schreber's Denkwürdigkeiten eines Nervenkranken; for Kittler it refers to the portrayal of discourses as effects of historically existing media technologies. It follows that the status of literary texts is also determined by what one might call this technicist perspective:

Discourse analyses . . . have to be materialistic. An elementary datum is the fact that literature (whatever else it might mean to readers) processes, stores and transmits data, and that such operations in the age-old medium of the alphabet have the same technical positivity as they do in computers. (370, Afterword to the Second Printing. Translation modified by T.S.)

One would have to conclude that because literature is a medium, literary science ought to be conducted as media science. However, the procedure is much more traditional than Kittler's provocative statements would have the perplexed reader believe. In spite of the fact that he rejects everything in any way appearing to belong to Geisteswissenschaften—he is the editor of a volume entitled Die Austreibung des Geistes aus den Geisteswissenschaften—he nevertheless basically remains loyal to the traditional approach of analyzing literature as the documentation of cultural and historical developments. Thus, Kittler's book ultimately turns out to be a narrative history surprisingly unreflected with regard to its methodological procedure. There are, to be sure, differences between Geistesgeschichte and Kittler's use of "instantaneous exposure or snapshots" (370), referring to synchronic cross-sections of historical material that permit structuring according to analogous and contrastive features. Yet, leaving unaddressed the question of whether Kittler really does what he claims to be doing, the two methods share a fundamental epistemological trust in the reconstructability of historical events. This, however, always also assumes the unproblematic readability of historical data, a requirement whose hermeneutical problematics Kittler believes he can escape because he
(like a good structuralist radically reduces the diversity of his historical material to a markedly restricted number of factors. In addition, he chooses to consider literary and historical documents as equivalent. As a result Kittler takes the fictive content of literary texts at face value as though the projections of a literary text are tantamount to the historical reality from which it emerges.

The outcome of Kittler's historico-archeological construction hardly differs from current accounts of literary history. In spite of expectations aroused by the gesture of Kittler's radical proclamations, his historical account adheres to contextual as well as formal conventions. Beyond his ironic posture, for example, Kittler still accepts a Classical Age of Goethe devoid of Hölderlin, Jean Paul and Kleist and, like the Germanists of the fifties and sixties, he understands modernism as its destruction. The epochally inopportune is thus excluded by the fable of two mutually exclusive historical orders. Their relationship, determined by a categorical paradigm clearly recognizable as a construct, is based on a simple oppositional series: 1900 is to 1800 as signifier to signified, writing to speech, insanity to sanity, untranslatability to translatability, anarchy to state, outside to inside. Kittler's history describes the inversion of one order into the other. It is obvious that he interprets this essentially structural displacement as historical progress, even though he is actually not allowed such an appraisal within the framework of his positivistic methodology. The truly innovative aspect of this context is the structuring of social, literary and philosophical history according to existing historical development of media technology. The amount of historical material Kittler presents for this purpose is remarkable and the material concerning the experiments and results of psychophysical research around 1900 is especially informative. Nowhere has this been treated so extensively before. However, the narrative that Kittler construes out of this material only makes sense superimposed against the background of Lacan's psychoanalytic theory which is itself only cursorily presented according to select motives and highlighted by specific exemplary citations. But even the reference to Lacan's theories (and subsequently Deleuze's, as well as those of others) hardly take Kittler's book beyond the level of an anthropologically conceived cultural history.

Thus, for example, Kittler advances "woman" somewhat crudely as a "presignifying talking machine" (38, translation modified T.S.) in order to conceive of literature around 1800 as a recording
system in the sense of technical medium. “Woman,” however, does not refer to “the women” around 1800 as historical individuals, but rather those “mothers” who Kittler believes to have discovered in the metaphoricity of literary, philosophical and pedagogical texts of that time as that instance which, according to Lacan, “causes speech but does not itself speak.” This naturally raises the question of why and how this “woman” around 1800 suddenly appeared. Although Kittler is compelled to presume the existence of actual mothers, he takes the fact that they provided the motivation for an unambiguous collective maternal imago (which is precisely what we are dealing with here) as the mere effect of the technical development of a particular Aufschreibesystem. The other available explanation is the common historical phenomenon which occurs in the nuclear family of the 1800s. In that social setting the mother undertakes the role of primary caregiver, resulting in the perfect intersection of her biological function as nurturing mother and her pedagogical influence on the early socialization of her children. This is indeed a significant change for all socio-psychological interpretations of literature around 1800. However, it is precisely this kind of socio-psychological genealogy and its hermeneutical presuppositions that Kittler wants to avoid. He writes:

This placing of mothers at the origin of discourse was the condition of production for Classical poetry, and the Mother was the first Other to be understood by poetical hermeneutics. Here, the analysis will remain at an elementary level: that of the materiality of language. . . . Because small changes in the play of letters and paper have changed the course of the so-called world, psychological introspection is superfluous. What is important are not biographical mothers with their comedies and tragedies, but the mothers and midwives of a completely new ABC book; not the transformation of dreams and desires, but a new technique of transcription that determines writing. “In the beginning” was, not the Act, but the ABC book. (28)

There is, then, for Kittler the possibility of technically manipulating a materiality of language and thereby altering the course of history. This occurred around 1800 because of a pedagogical reform of didactic procedures in language learning. A shift was made from learning complete words and phrases to the phonetic approach of oralizing the consonants and syllables of the alphabet. But the success of this “coercive act of alphabetizing” (30) was not merely initiated by a pedagogical shift to phonetics in High German orthography but rather, according to Kittler, because this
measure was associated with the body of “biographical” mothers. The voice of this primary pedagogical instance around 1800, the “ma/ma,” had eroticized language—a language which by this stage had been fragmented into letters and syllables causing its material writerliness to be lost in the imaginary of the mother’s voice.

Kittler thus eliminates the “biographical” or actual historical mothers “with their comedies and tragedies” from his examination by reducing them to a single function in their relationship to the infant, namely that of the oral mother in the psychoanalytic-anthropological sense. It follows that the recording system around 1800 operates because the “phonetic alphabet” is coupled with the “mother’s mouth.” The effect of this coupling is “WOMAN” as collective maternal imago who, as Kittler subsequently attempts to demonstrate, raises sons to be poets or script-producing civil servants and daughters who are their mothers and readers. However, in order to be able to combine the mothers with their speech acts as technical and material elements of an Aufschreibesystem, Kittler must base his assumptions on an empirical concept of writing so as to grasp language in its “materiality.” But with this, he himself restores precisely that opposition between speech and writing, the metaphysical implications of which he had sought to situate in the discourse around 1800. For Kittler, then, the language of literature is no longer merely communicative language, but, as a component of an Aufschreibesystem, it has acquired a formative quality—the Aufschreibesystem, to be sure, first forms language and forms itself as formation of language. Otherwise, if Kittler had not already made this distinction between oral language and written (recorded) language, he could make no historical differentiation between the medium of language around 1800 and the same medium around 1900. Without this distinction, he would be compelled to deal with language in a quasi “natural” state and not yet with “writing as channel for information” (370). But as Jacques Derrida (whom Kittler invokes without proper justification) has shown, there is no speech that is not already “writing.” Such a writing as the structure and movement of a différence can no longer be conceived of as an empirical fact. Kittler’s eclecticism is evident in these two incompatible concepts of writing, the Derridean concept on the one hand and a concept of writing as positive medium on the other.

According to Kittler, “the logic of the signifier”—that is, the discovery of language as “writing”—can be located historically with
the advent of Nietzsche. But such a logic undoubtedly was also experienced during the Age of Goethe, at least, if we can assume with some plausibility that this period had anything at all to do with literature. Specific historical differences can hardly be considered in terms of such typological generalizations as an age of the signified and an advanced age of the signifier, especially since these oppositions and hierarchies are themselves indebted to an ideology that is, one might argue, continually called into question or at least appears dubious in the texts they are intended to categorize. Although there was indeed a time when Goethe wrote and another when Nietzsche wrote, how those historical differences are articulated is a matter open to discussion. To unfurl them as a history of media technology is only possible at the expense of a violent reduction of their historical material and its specificity. In Kittler's narration they are sacrificed to that primary epochal difference, the opposition of nature and form (for 1800), and then again to the opposition of form and material (for 1900). And as in traditional historiography, the past is conceived from the point of view of the present. Thus, with the confident voice of 1900, Kittler writes (1985):

The limiting and defining shadow that would fall across Poetry, the shadow of the technological media, had not been cast in 1800. (99)

Poetry around 1800 is thus "defined" by media technology around 1900. Whatever Kittler claims elsewhere, here we are confronted with traditional hermeneutics, except that in this case the hermeneutical subject is not the historiographer but rather media technology itself. Thus media technology, like Hegel's Weltgeist, becomes the epistemological as well as the historical subject.

By 1900 there are real machines, a category to which man must also be counted and retroactively—by virtue of the force of Kittler's argumentative construct—always has been counted. Kittler relegates what the history of ideas treats under the term positivism to the founding phase of "psychophysics." He attributes positivism's historical praxis to the "paradigm shift" (214) that distinguishes 1900 from 1800 in his analysis. Psychophysics in its most extreme ambitions presents the attempt to think of man as analogous to a physical machine. Just as sensual perception is merely an effect of certain neurophysiological impulses, the "meaning" of linguistic expressions now similarly appears as the simple effect of a materially-existent linguistic structure. Of course, effects of
meaning cannot be computed. However, this is no longer important since by 1900 “meaning” itself has become dysfunctional. “Man”—a word not simply problematic, but one that has become utterly devoid of content for Kittler—is a machine in a larger complex of machines. And the significance of terms like “meaning,” “consciousness,” “subject” are now, as mere epiphenomena for positivists, completely irrelevant. The universe is a machine made of machines, driven by an originary energy of which “nerve stimuli” only present a particular modification. The principle governing this universe is energy consumption or “exhaustion.” Just as machines ultimately break down and wear out, so, too, does Man as machine.

The epistemological basis of this psychophysical concept is empirical observation or, more specifically, the experiment as technical sophistication. Consequently the transcendental “subject” of this epistem is a certain kind of technique or technology best described—if one were to summarize Kittler’s impressive descriptions—by the term “tinkering” (bricolage). No doubt the analogy between structuralist methodology and this view of the psychophysicist as tinkerer makes the latter so fascinating for Kittler. Kittler nowhere even suggests that empiriocriticism, popular in the heyday of psychophysics and best represented by Ernst Mach, was untenable as a theory of scientific praxis. A discussion of positivistic scientific theory within the framework of its historical development would doubtless have forced Kittler to reflect on the premises of his own project. Nevertheless, such a discussion may indeed appear superfluous if one assumes, as Kittler clearly does, that psychophysics presents the paradigm of scientific knowledge par excellence not just in 1900 but with equal validity in 1985. Since the technical refinements of a discourse network determine how material is recorded, they themselves are always already the framework for what is recordable as the universal order. The respective technological status of a discourse network becomes the historical apriori for what is recorded. Any interrogation of Kittler’s analyses and proposals has to conclude that they, too, circulate within the mute immanence of the “1900” apriori.

According to Kittler the phonograph, film and typewriter were the direct result of psychophysical experimentation, and their invention around 1900 led the way to the destruction of the previous Aufschreibesystem. Concerning the phonograph and film, he writes:

Circa 1900, the ersatz sensuality of Poetry could be replaced, not by
Nature, but by technologies. The gramophone empties out words by bypassing their imaginary aspect (signifieds) for their real aspects (the physiology of the voice). . . . Film devalues words by setting their referents, the necessary, transcendent, indeed absurd reference points for discourse, right before one's eyes. . . . To use Lacan's methodological distinction between symbolic, real and imaginary, two of these three functions, which constitute all information systems, became separable from writing circa 1900. The real of speaking took place in the gramophone; the imaginary produced in speaking or writing belonged to film. (246)

Here, at the very latest, Kittler's historiography belongs to phantasmagoria. Why the phonograph should have access to the real, while film only has access to the imaginary is baffling. Sound waves as such are inaudible to me, I never actually hear the instruments producing them. Notes emanating from a phonograph are neither more real nor less imaginary than filmed images on a screen. If Kittler is merely concerned with saying that the phonograph demonstrates the theoretical assumption of the existence of sound waves as something "real," then the same holds true with respect to film for our scientific understanding of the physics of light. Nevertheless, however the connection between the real and the phonograph is constructed in order to allow the equation of media technology with certain psychoanalytical theorems to be resolved without remainder, Kittler finally introduces yet another analogy: the typewriter for the realm of the Lacanian symbolic. With the introduction of the typewriter, Kittler asserts the existence of a qualitative opposition between handwritten and type-written texts:

In the play between signs and intervals, writing was no longer the handwritten, continuous transition from nature to culture. (194)

But couldn't the opposite be just as plausible, since according to Kittler's own insight the technology of the typewriter was "capable of putting one's first thoughts, which are well known to be the best, onto paper." (193). In fact, it is frequently possible to invert Kittler's examples in this way and undo the historical poles of 1800 and 1900 which he endeavors to stabilize. Consider the following citation from Hoffmann's *The Golden Pot*, for example:

I stole out to my favorite stone, upon which mosses and lichens formed the strangest images [*Figuren*] and which I never tired of contemplating. I often believed that I could understand these signs, and it seemed to
me that I could see in them the most wondrous stories, such as those that my mother had told me. (86)

This is Kittler’s interpretation:

In order for signs to be comprehensible rather than simply readable, they must first be endowed with the figural quality of images drawn from nature, then these images must be animated by the hallucinated Mother’s Voice. As in the phonetic method, optical signs are surrounded with the echo of maternal orality. The result is that instead of signifiers one has signifieds that can be “seen,” as if the text were a film. (86)

One wonders which echo from which mother’s mouth surrounds the interpreter and suggests to him the ability to see in Hoffmann’s “strange figures” on stone, moss and lichens more than mere figures. That is, what allows him to “see” and “read” actual signifiers? Here Kittler indeed steps into the shoes of Hoffmann’s protagonist when he declares that the “figures” are signifiers. Certainly, they first become signifiers after being given a minimum of significance, while “figures” existing without this projection of significance lack even this very minimum. Which text is then supposed to be like a film? The one by Hoffmann or the “strange figures” and “signs” with which it deals? Isn’t Hoffmann’s text primarily concerned with material resistances against readability? With regard to literary texts like this one, it should be asked whether they don’t offer greater critical potential than a criticism that believes itself ahead of them.

But again compare the above with another example which Kittler has chosen for 1900. The following is taken from a novel by Emil Strauss, whose protagonist is confronted by a difficult mathematical problem:

But on the fourth day he suddenly caught himself not concentrating on the equation he was supposed to be solving but reading the letters as notes, and, without being aware of it, he had already hummed a whole page of the book. . . . Soon, however, he was no longer laughing; he noticed that he could no longer concentrate on the mathematical value of the letters, and that the simplest sequence of letters would remind him of a musical phrase or suggest a motif. (271)

Here Kittler finds neither “mother’s mouth” nor signifieds at work. Instead:

One who reads note values rather than algebraic variables (and also letters in other places), is proceeding neither irregularly nor according
to an author's psychology. His reading is conceivably a precise transposition of media and can be interpreted and legitimized by Simmel's objective interpretation. (271)

Thus the fundamental paradigm shift occurring around 1900 is that while previously a reader “believed” he had found stories (which unfortunately his “mother” had told him) while looking under lichens, moss and stone, he now perceives algebraic variables as musical notes. While for the former, “the impossible, namely the presence of letters in Nature, is realized” (86)—and according to Kittler this is mere psychology—the latter is confronted with “precise media transposition.” In both cases Kittler treats literary texts as documents of empirical historical processes. But isn’t this in fact the genuinely romantic topos of the readability of the world, to treat each thing as a reflection of another? And, therefore, doesn’t this view also conform precisely to Kittler’s universal media network? Just as romantic heroes (but not romantic authors nor the romantic texts themselves) view nature as writing, allowing the transcription of figures into signs, so, too, can the technician of 1900 transcribe algebraic signs like letters and variables into music. In principle there is no difference here if one imputes, as Kittler does, that the romantic hero would view nature as a medium.

For Kittler, translating around 1900 is no longer the translating of signifieds (as he claims it was in 1800), but is instead simply based on relationships between signifiers. Kittler calls these interlinear translations “transpositions of media” (271); he presumably uses this term in order to metaphorically rule out all doubt that this transposition of media is still a hermeneutical procedure. Now, because such “transpositions” take place between finite quantities of signs they must necessarily leave “gaps”; therefore, we are dealing not so much with translations as with displacements. Paradoxically, it turns out that precisely the “untranslatability of media is essential to the possibility of their coupling and transposition” (273). Thus, in the final analysis the untranslatability of a medium provides no material resistance to its transformation into another medium because the medium is always already conceived of as form and not as matter. McLuhan, to whom Kittler refers, leaves no doubt about the Platonic formalism of his concept of media. In *Understanding Media* (New York: McGraw-Hill, 1964), McLuhans’ sensational book propagating his dictum “the medium is the message,” he states: “All media are active meta-
phors in their power to translate experience into new forms" (64). But if media transpositions are again simply the movement of a metaphorization, then 1800 and 1900 can no longer be distinguished from one another in the way Kittler would like: namely, in the belief in a transcendental signified in the former case and the knowledge of manipulatable signifiers in the latter. Instead, 1800 and 1900 would be distinguishable only by means of the various realizations of one and the same formalism, a techno-transcendentalism, nevertheless still more "materialistic" in Hoffmann's "figures" and romantic lichens, moss and stones, which do not themselves automatically announce the significance of their form, than in Kittler's media-technological formalism.

Since, according to Kittler, around 1900 the imaginary was recorded by film and the real by phonograph, there remained for literature only the realm of the symbolic. But around this time literature had to share its territory with the nascent discipline of psychoanalysis. Here again Friedrich Kittler operates with the opposition of speech and writing. For him psychoanalysis is apparently a system for inscribing that which otherwise would remain merely verbal, mental or "the primal soup of brain physiology" (319). Thus literature and psychoanalysis are media-technological rivals distinguished, to be sure, by the fact that literature merely records the nonsense running through an author's head while psychoanalysis organizes this nonsense according to the logic of dreams. For Kittler, literature around 1900 is a "simulacrum of insanity" and according to this logic Rilke's Aufzeichnungen des Malte Laurids Brigge and Schreber's Denkwürdigkeiten eines Nervenkranken are qualitatively the same. The difference between a neurotic who does not write and one who does lies in the fact that the former simply suffers while the latter has already mimetically accommodated himself to his suffering in the hope that by simulating his insanity he can counteract it. By means of his writing, the neurotic is the complete meshing of the machine-man with the machines of the Aufschreibesystem: he is a potential liberator of that which could impede the unrelenting flow of media transpositions whether it goes by the name of "man" or "ratio" or "soul" or "subject."

Kittler says of Foucault:

In his admirable uncertainty about whether the return of language circa 1900 represented the last moraine of transcendental knowledge or a new beginning, Foucault placed psychoanalysis, ethnology, and structural linguistics in a position where the human sciences' inner perspec-
tive on Man was transversed by language as an exterior element. The uncertainty arose because Foucault conceived discursive rules as comprehensible [denkbare] and therefore overlooked technologies. But innovations in the technology of information are what produced the specificity of the discourse network of 1900, separating it from transcendental knowledge and thus separating psychoanalysis from all human sciences. (278)

Kittler thinks of technology merely as technical apparatuses in their empirical facticity and not, like Foucault, as a function of knowledge. And Kittler does not recognize that if he replaces language by technologies—conceived of as such empirical apparatuses—then everything that Foucault says about language holds true precisely for technology. In other words, the specificity that Kittler reserves for psychoanalysis and his own enterprise can be nothing more than an illusion that is transversed by an exterior element called technologies. If media technologies are the historical apriori of what can be recorded, then they are this unattainable exteriority; every history of a media technology is subject to this exteriority and cannot account for its own historical locus. It is simply a story not obliged to tell any verifiable truths—the advent of other technologies will require other sciences which, in turn, will tell other stories. Thus an "archaeology of the present" is, according to the logic of Kittler’s systems and contrary to his own claims, utterly inconceivable: in it technologies themselves would indeed be the ideal historical and hermeneutic subject which Kittler unwittingly makes them, even while intending to break away from the philosophical concepts of the human sciences.

Kittler clearly remains unaware of the tenuousness of his historiography with regard to its own presuppositions, and instead of really thinking through technology as the "historical apriori," he couples completely incompatible concepts as though he were trying above all else to put his thesis of modern writing as a "simulacrum of insanity" into practice right here in his own book. Whatever else one may be tempted to call it, this certainly cannot be accepted as critical practice. Nevertheless, it is quite an interesting form of literary practice, and several of Kittler’s readings stand as remarkably innovative interpretations even though they were not intended as such. His refreshing and unscrupulous attacks against canonical texts sometimes garner concrete results far outweighing what he had actually intended to show and they certainly rank his book above most German literary criticism. He can hardly be ac-
cused of sharing their blandness. However, this originality is obtained at the expense of a thoroughly coherent concept. Finally, the attempt to think of technology as technological apparatuses is neither particularly new nor does it lie beyond the realm of anthropology, as Kittler seems to assume. As Heidegger, for example, would argue, this is precisely an anthropological definition of technology, namely technology as man’s supplementing instrument, since man has been considered a *zoon technicon* since Aristotle at the latest. However, concerning the moral and political implications of Kittler’s ideas, they need not be deemed offensive. Since, as Kittler himself says, only “*printed* laments over the death of Man or the subject always arrive too late (370, my emphasis),” it is impossible to entirely eliminate the likelihood that man will ultimately also abstain from this utopia of romantic technicity.

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