

*A social attitude vis-à-vis machines [. . .] expresses [. . .] the position of desire in the infrastructure.*¹

This text maps a constellation of trajectories oscillating between intimacy and the web of machinic infrastructure in which intimacy operates. In doing so, it critically reads intimacy as drawing on a space of interiority contingent upon this machinery. In other words, rather than suspending intimacy, this text probes an alternative notion: *extimacy*. In psychoanalysis, this term addresses the subject’s immanent relation with radical exteriority. Drawing on Félix Guattari’s psychiatric experiments with media such as voice recorders and film, and his critique of Lacan’s structuralist idea of the subject, this text explores the entanglement between the *unconscious* and the *machine*. Extimacy is no longer understood as a paradoxical interplay between the subject and its innermost exteriority. The question is rather: How does the problem of the topology of the psyche elucidate our present machinic condition,² both in its historical development as well as in its present digital configuration?

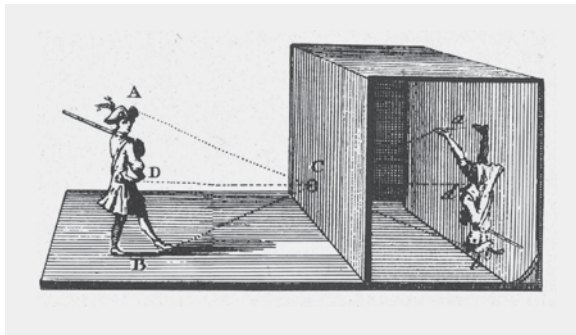
Interior Machina

In 1959, Jacques Lacan coined the term *extimité*, critically addressing the problem of the topology of the psyche. He could hardly have imagined the profound transformations of the half century to come:

a world in which geographical distances so radically changed their meaning—the world of the technical colonization of the unconscious.³ However, this same new world was also inhabited by a multiplicity of new senses, by desires inflamed by a refusal to accept as given or natural the regime of sexual difference; a world of transcultural global communities formed and disseminated in opposition to the territorialized state politics. Yet precisely these then distant constellations incite us to reevaluate Lacan’s concept of extimacy.

Lacan’s inversion of “intimacy” through the prefix “ex” might appear paradoxical at first glance, as it points at something *outside* located simultaneously *inside*. The French *intimité* (intimacy) designates not only closeness and proximity but refers also to a topological quality of the deepest, innermost part of one’s being: a locus, *intimateness*. Such topological intensification is also reflected in the

Unknown, Illustration of the Camera Obscura Principle, 18th century



1 Félix Guattari and Gilles Deleuze, “Balance-Sheet for ‘Desiring-Machines,’” in Guattari, *Chaosophy: Texts and Interviews 1972–1977*, ed. Sylvère Lotringer, trans. David L Sweet, Jarred Becker, and Taylor Adkins, Semiotext(e) Foreign Agents Series (Los Angeles: Semiotext(e), 2009), 114.

2 Machinic: “of or relating to machines.” Wiktionary, s.v. “Machinic,” accessed March 16, 2019, <https://en.wiktionary.org/wiki/machinic>. Guattari and Deleuze use

this term throughout their work to describe the machinic qualities of reality, which this essay explicates below.

3 Describing the new ethology in the age of the digital, conceptualized as “new feelings,” Alexandra Molotkow refers to the vertiginous immediacy of relations and potential contacts in social networks. Molotkow, “New Feelings: Crush Fatigue,” *Real Life*, August 1, 2018, <https://reallifemag.com/new-feelings-crush-fatigue>.

4 Jacques-Alain Miller, “Extimité,” *Prose Studies* 11, no. 3 (December 1988): 122.

5 Sigmund Freud, note of August 22, 1938, in Freud, *Standard Edition of the Complete Psychological Works*, trans. James Strachey (London: Hogarth Press, 1964), 23:300, quoted in Edward S. Casey, *The Fate of Place: A Philosophical History* (Berkeley: University of California Press, 1997), 456n6.

6 Miller, “Extimité,” 123.

7 Lacan not only served as Pablo Picasso’s therapist but also published texts in Surrealist journal *Minotaure*.

8 Henning Schmidgen, *Das Unbewusste der Maschinen: Konzeptionen des Psychischen bei Guattari, Deleuze und Lacan* (Munich: Wilhelm Fink Verlag, 1997), 114–115; see also Svitlana Matviyenko, “Lacan’s Cybernetics” (PhD diss., University of Western Ontario, 2015), <https://ir.lib.uwo.ca/etd/3461>; on the influences leading from cybernetics to French theory more

etymology of the word, since the Latin *intimus* is a superlative of “interior.” Intimacy marks “an effort on the part of language to reach the deepest point in the interior.”⁴

Speaking of extimacy at decisive junctures, Lacan took up a fundamental problem that obsessed Sigmund Freud. In one of Freud’s final, and rather enigmatic, notes, he envisioned the psyche as being radically extended into space:

Space may be the projection of the extension of the psychical apparatus. No other derivation is probable. Instead of Kant’s *a priori* determinants of our psychical apparatus. Psyche is extended; knows nothing about it.⁵

Freud counters Immanuel Kant’s major philosophical concept: time and space as *a priori* conditions for psychic processes and cognition. Following his path, Lacan later derived that the psyche is *extimate* to itself, *is* unconscious. Extimacy is not the opposite of intimacy; “Extimacy says that the intimate is Other—like a foreign body, a parasite.”⁶ The Other, the foreign intimate, the unconscious: these are synonyms, figures ruthlessly driven out of themselves.

Observing symptoms of paranoid psychosis, Lacan described behavior escaping patients’ will as “automatic phenomena.” Such acts mediated something imposed from the outside. In the

1930s Lacan was close with Surrealists who practiced *écriture automatique*, the technique of giving immediate expression to what André Breton called “inner discourse.”⁷ What Freud conceived as *Wiederholungszwang* or “repetition compulsion” in *Beyond the Pleasure Principle*, Lacan conceptualized as *automatisme de répétition*. Deliberately foregrounding such a machinic quality of the psyche, Lacan insists on the specific function of the unconscious as memory of the symbolic. Later, in his famous 1956 cybernetic seminar *The Seminar on The Purloined Letter*, Lacan transposed these spectral automatisms into a language shaped by contemporary information theory.⁸

For we have learned to conceive of the signifier as sustaining itself only in a displacement comparable to that found in electric news strips or in the rotating memories of our machines-that-think-like-men, this because of the alternating operation which is its principle, requiring it to leave its place, even though it returns to it by a circular path.⁹

In his translucent and groundbreaking study on Guattari’s machinic unconscious, *Das Unbewusste der Maschinen* (The unconscious of machines, 1997), Henning Schmidgen analyzes Lacan’s association of psychic processes and information technology.¹⁰ He also points out Lacan’s extension of Freud’s

generally, see Bernard Dionysius Geoghegan, “From Information Theory to French Theory: Jakobson, Lévi-Strauss, and the Cybernetic Apparatus,” *Critical Inquiry* 38, no. 1 (September 2011): 96–126.

9 Jacques Lacan, “Seminar on ‘The Purloined Letter,’” in *Ecrits: The First Complete Edition in English*, trans. Bruce Fink (New York: W.W. Norton & Co, 2006), 21. Also available at <https://www.lacan.com/purloined.htm#11x>.

10 Excerpts of which are available in English: Henning Schmidgen, “Machinic Subjectivity: Psychoanalysis, Cybernetics, and the Assemblage of Technology,” trans. Gloria Custance (self pub., 2019).

contentions. In Lacan’s words, “It is not only the subject, but the subjects, grasped in their inter-subjectivity, who line up [. . .] and who [. . .] model their very being on the moment of the signifying chain which traverses them.”¹¹ For Lacan, such machinic procedures encapsulate the core of intersubjective relations. Lacan’s equation places the unconscious on the level of the machine. Or more precisely, intersubjectivity is a machine determined by the chained, metric displacement of the signifier. Coupling the alterity of the unconscious with the machine, Lacan undertakes a radical step toward dehumanizing the psyche, exteriorizing it, and transposing the interfering function from the subject on the machine. Yet by the same gesture, he makes the subject a prisoner of its “translucent, aseptic, imputrescible and timeless signifying chains.”¹²

In his 1966 essay “From One Sign to the Other,” published in *Psychoanalysis and Transversality* (1972), Guattari offers a scathing account of Lacan’s model of the unconscious:

The ‘I’ defines nothing. [. . .] Grasped by the other on the edge of myself I ebb to the other end of the chain. The coordinates cross. The I for I was only a possible mirage in the intimacy of the other for me. But this other, to the extent that it refers to an other for the other, from which any orientation is impossible, forbids me any

security related to the true position of the subject and leaves me beset by the vertigo of an eternal return to my first effusions with death.¹³

In this “infinite game of references from one structure to another,” Lacan’s subject as well as the machine correspond with the totalizing set of the signifier.¹⁴ Guattari uncovers the tautological premise of such a model, a model promoting an omnipotent agent to which all possible signification is subordinated.

From One Machine to Another

While Guattari excoriated Lacan for modeling the psyche on a totalizing and reductive conception of the machine, his own theoretical outlook by no means repudiated machinic concepts. Rather the opposite: Guattari would develop a veritably machinic theory—yet this move went hand-in-hand with a radical reorientation of the concept of the machine itself, largely derived from his psychotherapeutic experience. Henceforth, the machine and the machinic would refer to productive interconnections between heterogeneous domains and elements, encompassing the social, psychical, political, and aesthetic just as much as the technical.

This new concept took center stage in *Anti-Oedipus* (1973), the famous manifesto on desiring

11 Lacan, “Seminar on ‘The Purloined Letter,’” 21.

12 Félix Guattari, “From One Sign to the Other (Excerpts),” in *Psychoanalysis and Transversality: Texts and Interviews 1955–1971*, trans. Ames Hodges (Los Angeles: Semiotext(e), 2015), 200.

13 Guattari, “From One Sign to the Other,” 200–201.

14 Guattari, “From One Sign to the Other,” 199.

15 Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia*, trans. Robert Hurley, Mark Seem, and Helen R. Lane (Minneapolis: University of Minnesota Press, 1983), 1.

16 La Borde is situated two hundred kilometers south of Paris in Cour-Cheverny; Guattari was invited by its director, the psychiatrist Jean Oury. While there, Guattari also attended Lacan’s lectures in Paris and shared the knowledge with the team at La Borde. An elaborated

account of Guattari’s activity in La Borde is given in Schmidgen, *Das Unbewusste der Maschinen*, as well as in Henning Schmidgen, ed., *Die Guattari-Tapes: Gespräche mit Antonio Negri, Jean Oury, Jean-Claude Polack, Élisabeth Roudinesco, Danielle Sivadon und Paul Virilio* (Berlin: Merve, 2019).

17 Félix Guattari, “La Borde: A Clinic Unlike Any Other,” in *Chaosophy: Texts and Interviews 1972–1977*, ed. Sylvère Lotringer, trans. David L

Sweet, Jarred Becker, and Taylor Adkins, *Semiotext(e) Foreign Agents Series* (Los Angeles: Semiotext(e), 2009), 178.

18 Guattari, “La Borde,” 179.



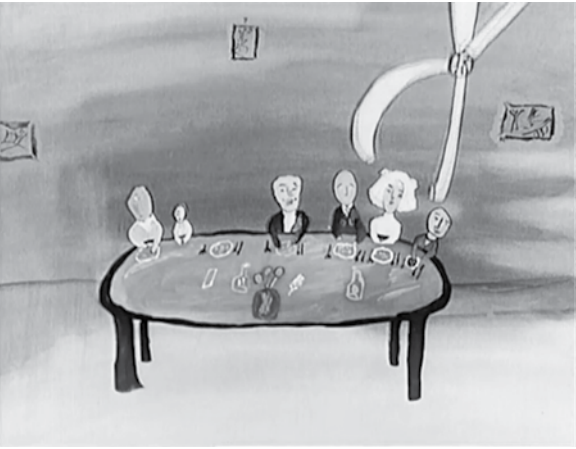
Fernand Deligny's *Network in Cévennes*. Trajectories or “wander lines” of Philippe and Anne (two autistic children) in the kitchen of the house Y in Monoblet, November 13, 1976. Traced by Thierry Bazzana et Marie-Madeleine Godet

machines written with Gilles Deleuze. Both its criticism of psychoanalysis as well as its rampant machinism drew on Guattari’s fifteen years of therapeutic practice. While machinic vocabulary was merely metaphorical for Lacan, Guattari elaborated and implemented a theory of “real [. . .] not figurative” machines that applied to socio-institutional contexts as well as the actual media and machines in his therapeutic practice.¹⁵ Two formative episodes elucidate this shift, and this essay will extrapolate from these to present-day assemblages of the social, psychical, and technical.

First, when Guattari joined the psychiatric clinic of La Borde, he was responsible for implementing “institutional psychotherapy,” a therapy

based on group methods, workshops, and the critical restructuring of the institution, as well as a series of media and artistic practices operated together with the patients.¹⁶ Guattari describes the new ergonomic structure of La Borde as an “internal mini-revolution”: a rotational principle required “all service personnel work to be integrated with medical work, and that, reciprocally, medical staff be drafted for material tasks such as cleaning, cooking, dishwashing, maintenance.”¹⁷ As Guattari recalls, “an old washerwoman proved very capable at running the print workshop and editorial committee of the newspaper; another excelled in sporting activities, a former metallurgist showed great talent leading mime shows.”¹⁸ This principle aimed at a gradual desegregation and disalienation

René Laloux, *Les dents du singe*, 1961. Animation, 5:34



of the institution’s internal relationships—the patient-doctor relationship as well as that between medical staff and service personnel. A collectively devised grid that formalized and diagrammed the division of labor constituted this process’s fulcrum, mediating between tasks and subjectivities.¹⁹ Against the ossified prior routine, this reorganization of labor installed a machine intersecting the clinic’s institutional, social, and psychical domains that intensified the heterogeneity of activities and contacts within the milieu.

“The institutional machine that we positioned didn’t simply remodel the existing subjectivities, but endeavored, instead, to produce a new type of subjectivity.”²⁰ Such an idea of disalienation implied—besides the manifest positioning against monotonous “seriality” and hierarchy of institutions—a dismantling of another alterity: the alienation of the unconscious through Lacan’s Other. Guattari’s “institutional analysis” opened the Pandora’s box of the unconscious toward social and political dimensions, such as “health, pedagogy, prison conditions, femininity, architecture, urbanism.”²¹ Furthermore, machinic interventions opened the rigid mirror corridor of Lacan’s imaginary through an active use of imagination: staging of theater plays, production of exhibitions (such as “Le siècle de Kafka” at the Centre Georges Pompidou, 1984), films, and journals served as “projective equivalents,” therapeutic techniques helping to restore patients’ bodies and minds.

Second, for Guattari, machines were equivalent to psyches on the basis of their active intervention, or even interaction: from one machine to another, from psyche to machine. This elucidates his formative experience with the case of R.A., a patient showing symptoms of psychosis who refused any constructive interaction. In his therapeutic cure with the patient Guattari used a tape recorder.²² This machine *par excellence* broke the two-person psychotherapeutic structure by introducing a crucial third instance: “The recorded voice, the drawling tone, the hesitations, the breaks, the constant incoherence revolted him, and he took me as a witness that he must have truly fallen ‘lower than everything’ to end up speaking like that.”²³

Guattari also mentions an amateur film made at La Borde: when R.A. watched the recording, he—to Guattari’s surprise—recognized himself participating in various activities. Next, Guattari asked R.A. to transcribe Franz Kafka’s novel *The Castle* (1926), having previously noted similarities between the patient and the author’s psychopathological structure and external appearance. This projective exercise gradually enabled the patient not only to speak but also to keep his own diary, fragments of which feature in *Psychoanalysis and Transversality*. Remarkably, R.A. compares his own speech acts and their difficulties with machinic operations.²⁴ The intervention of machines in the therapeutic cure allowed for a crucial heterogeneity of relations. This experience allowed Guattari to reconsider the

19 For more on the grid, see Susana Caló, “The Grid,” Anthropocene Curriculum, April 23, 2016, <https://www.anthropocene-curriculum.org/contribution/the-grid>.

20 Guattari, “La Borde,” 180.

21 Guattari, “La Borde,” 183.

22 See also the brilliant analysis of the patient R.A. in Schmidgen, *Das Unbewusste der Maschinen*, 91–98.

23 Félix Guattari, “Monograph on R.A.,”

in *Psychoanalysis and Transversality: Texts and Interviews 1955–1971*, trans. Ames Hodges (Los Angeles: Semiotext(e), 2015), 38.

24 “I say ‘in short’ as if I were a steam machine, both living and dead, that sometimes makes a small sound of steam being released, somewhat regularly, as if it were woken up a little bit by a sound in its dreams of clouds. It does not move but jumps while releasing the words ‘in short’ in one sentence, then two, then... All of my subsequent ‘in

shorts’ serve the same cause (remember this when you read them).” Félix Guattari, “Collapse of a Life Not Lived. Loss of the ‘I’: (Extracts from the Journal of R.A.),” in *Psychoanalysis and Transversality: Texts and Interviews 1955–1971*, trans. Ames Hodges (Los Angeles: Semiotext(e), 2015), 42.

25 Guattari and Deleuze, “Balance-Sheet,” 91. Emphasis in original.

26 Guattari and Deleuze, “Balance-Sheet,” 114.

27 Schmidgen, *Das Unbewusste der Maschinen*, 162 (translation our own).

28 Félix Guattari, “Machinic Heterogenesis,” in *Chaosmosis: An Ethico-Aesthetic Paradigm*, trans. Paul Bains and Julian Pefanis (Bloomington: Indiana University Press, 1995), 33.

29 Michael Hardt, “Anti-Oedipus: Part One,” Reading Notes on Deleuze and Guattari: *Capitalism & Schizophrenia*, <http://people.duke.edu/~hardt/ao1.htm>.

structuralist analogy between psyche and machine. For Guattari, machines assumed an equivalent status to the psyche. Such reciprocal interactions went from one machine to another, from psyche to machine. “*Humans are a component part of the machine, or combine with something else to constitute a machine [. . .] under specific conditions.*”²⁵

These two cases reveal that Guattari’s concept of the machine divorces itself from its conventional confinement to the realm of technics.²⁶ It instead refers to the productive coupling of heterogeneous components and processes across different domains, such as the social, political, institutional, psychical, and aesthetic. As a theoretical lens, it thus foregrounds the “coaction of human activities, machinic functions, and further processes.”²⁷ This conceptual shift entails a radical revaluation according to which the machine “becomes the prerequisite for technology.”²⁸ Moreover, it puts forth the “properly ontological claim” that “all is machinic.”²⁹

Cybernetic Ecology

Guattari and Deleuze’s elaboration of the machinic thus departs from Lacan’s rigid transposition of cybernetics to psychoanalysis by working through more experimental couplings and heterogeneous domains. Yet this entails a proper reckoning with, rather than repudiation of, cybernetics.³⁰ Indeed,

30 Cf. Andrew Goffey: “Even when [Guattari] is talking about the production of subjectivity in a post-media era, when he is concerned with planetary computerization [...] these ideas nevertheless remain consistent with and are strongly informed by his exploration of the transformations of libidinal energy at play in the kind of psychopathological phenomena—psychosis, schizophrenia, autism, and so on—that were of central importance to him in his lifelong work at the La Borde clinic. The plural

semiotic processes which he emphasizes as being operative in the production of subjectivity today [...] are to be understood as indissociable from a growing emphasis in his work on the pathic dimension of subjectivity—a dimension that is emphatically focused on the existential in a manner that simply disappears when people [...] assimilate his work on ideas to do with the machinic to a kind of recondite form of cybernetics.” Andrew Goffey, “La Borde and the Analytic Practices of Jean

the machine-infused philosophy that the two developed, took up cybernetics’ expansion of the machinic, yet with two critical caveats. First, it radicalized the cybernetic principle that feedback opens a machine to its outside, allowing it to incorporate and respond to the contingency of the environment.³¹ Accordingly, “the machine no longer faces to the past and determinism, but rather toward rupture, opening, and creativity”³²—an “intrusion of the radically new” laden with deep political valence via the protests of 1968 France.³³ The concern with “rupture, opening, and creativity” and the recognition of the machinic as a connection of heterogeneous elements also announce the second caveat: Guattari’s focus on subjectivity. This rupture on the part of the machinic is itself that which effects subjectivity; as a corollary, machines—including “technological machines of information and communication”—“operate at the heart of human subjectivity, not only within its memory and intelligence, but within its sensibility, affects, and unconscious fantasm.”³⁴

Thus, although Guattari never engaged with the concept of extimacy, his and Deleuze’s “schizoanalytic” machinism does Lacan one better. Traversed not by the tautological alterity of the other but by the heterogeneity of the world, subjectivity becomes truly *extimate*: open to political, social, institutional, aesthetic, as well as technical relations. This extimate production of subjectivity is, in all its valences, machinic.

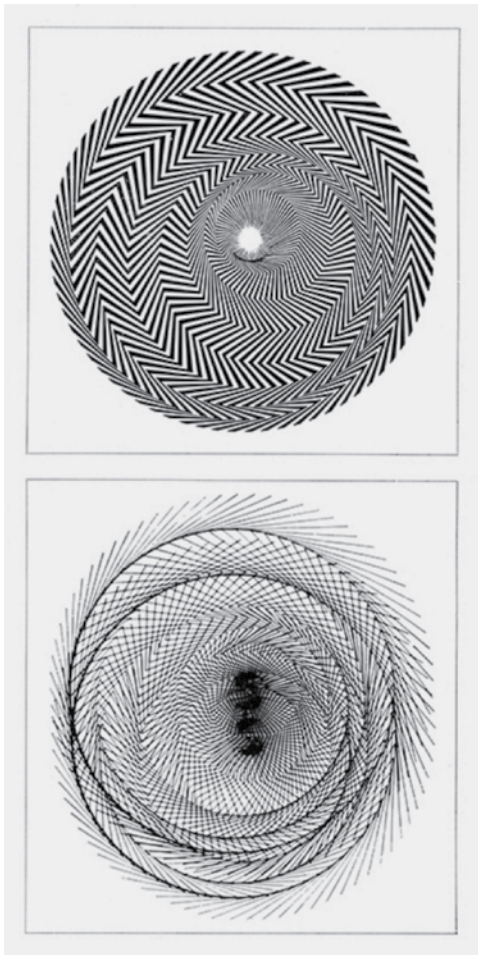
Oury,” lecture, Visual Cultures Public Programme, Goldsmiths, University of London, January 30, 2020, London, YouTube, 56:41, <https://www.youtube.com/watch?v=iLITiFxAB9E>, 13:45–15:25.

31 On cybernetics and the incorporation of feedback and contingency, see Geert Lovink and Yuk Hui, “Cybernetics for the Twenty-First Century: An Interview with Philosopher Yuk Hui,” *e-flux Journal*, no. 102 (September 2019), <https://www.e-flux.com/journal/102/282271/cyber>

netics-for-the-twenty-first-century-an-interview-with-philosopher-yuk-hui; expounded at length in Yuk Hui, *Recursivity and Contingency*, Media Philosophy (London: Rowman & Littlefield, 2019).

32 Schmidgen, *Das Unbewusste der Maschinen*, 163 (translation our own).

33 Schmidgen, *Das Unbewusste der Maschinen*, 65 (translation our own); see also 58–61. For the political roots informing institutional psychotherapy more generally, see Camille



Bridget Riley, *Blaze I*, 1962. Emulsion on board. Leigh Hendricks, *Variations on a Theme from Bridget Riley*, 1968. Computer graphic. In: Jasia Reichardt, ed., *Cybernetic Serendipity: The Computer and the Arts* (New York: Studio International, 1969)

In this light, the digitization of the lifeworld and the concomitant extension of market forms of organization merit special attention.³⁵ The Deleuzo-Guattarian machinist lens affords a perspective that apprehends the psychical, technical, economic, etc. as constituting one immanent field. As institutional psychotherapy and Gestalt psychology before it recognized, behavior emerges from the constitutive reciprocities between the poles conventionally understood as organism and environment.

Today, companionship in digital spaces has become a fact of everyday life. The imbrication of information technology in the most minute gestures, affects, and habits reveals a spectrum of *machinic ethological hieroglyphs*: modes of behavior and attitudes that testify to a psychical, digital, and social infrastructure. Their symptomatic expression through articulations of *intimacy* proves their incommensurability with the available psycholinguistic inventory. For one thing, the inherence of digital mediation in interpersonal intimacy has taken on the character of a sine qua non relation accepted and felt at the level of the cultural unconscious. Deprivation—“without information and limited to the people around”—induces depressive isolation.³⁶ Furthermore, intimacy prevails as a conceptual modality for articulating affects of the emergent socio-technical milieu. It recurs, for instance, in nearly half of the entries in *New Feelings*, a column in the Snapchat-sponsored magazine *Real Life*, “devoted to the desires,

Robcis, “François Tosquelles and the Psychiatric Revolution in Postwar France,” *Constellations* 23, no. 2 (June 2016): 212–22.

34 Félix Guattari, “On the Production of Subjectivity,” in *Chaosmosis: An Ethico-Aesthetic Paradigm* (Bloomington: Indiana University Press, 1995), 4.

35 A notable contribution on the concomitance of market forms of organization and information technology is Claudio U. Ciborra, “Reframing the Role of Computers

in Organizations: The Transaction Costs Approach,” in *Proceedings of the 6th International Conference on Information Systems (ICIS)*, Indianapolis, Indiana, 1985 (Atlanta: Association for Information Systems, 1985), 57–69, <http://aisel.aisnet.org/icis1985/9>.

36 “Isolation,” the world UNPLUGGED, 2019, last modified March 3, 2011, <https://theworldunplugged.wordpress.com/emotion/isolation>.

37 “New Feelings,” *Real Life*, <https://reallifemag.com/tag/new-feelings>.

38 Theodore Roszak, *From Satori to Silicon Valley* (Stanford: Stanford University, 2000), electronic edition, Making the Macintosh: Technology and Culture in Silicon Valley, <https://web.stanford.edu/dept/SUL/sites/mac/primary/docs/satori/index.html>.

39 Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Chicago: University of Chicago Press, 2006), 38.

40 Stewart Brand et al., eds., “Purpose,” *Whole Earth Catalog*, 1968–72.

41 Turner, *From Counterculture to Cyberculture*, 31; see also Theodore Roszak, “The Short Cut to Satori” in Roszak, *From Satori to Silicon Valley*, <https://web.stanford.edu/dept/SUL/sites/mac/primary/docs/satori/short.html>.

42 Richard Brautigan, “All Watched Over by Machines of Loving Grace,” in *All Watched Over by Machines of Loving Grace* (San

moods, pathologies, and identifications that rarely had names before digital media.”³⁷ These entries name the new configurations of intimacy, which no longer exist within the continuity of inner- or intersubjective space, as well as new symptoms of a subjectivity conditioned by new forms of machinic entanglements.

A tension emerges from this situation. On one hand, an ongoing, thorough recompiling of the psychosocial stack with evermore technological components immanentizes it with the digital. It thereby undermines traditional models of interiority. On the other hand, the subjective experience of this process apparently refers back to intimacy—yet what kind of intimacy is at stake here? There is a linguistic and experiential persistence of intimacy as longing for interiority even as its very conditions are in considerable flux. In an apparent paradox, in the midst of a reconfiguration revealing itself in all its extimate and machinic dimensions, classical notions of interiority—and with it, intimacy—resurface.

This coexistence dates back to the origins of the current technological regime. The “technophilic”³⁸ “new communalists” of the American 1960s counterculture sought to effect a transition away from the 1950s Fordist disciplinary *dispositif*, its bureaucracy, technocracy, and proffered model of a “drab, psychologically distressing adulthood,”³⁹ toward a “realm of intimate, personal power.”⁴⁰ Having eschewed the confrontational politics of

social change, they “turned inward, toward questions of consciousness and interpersonal intimacy, and toward small-scale tools such as LSD or rock music as ways to enhance both.”⁴¹ Evidently, the critique of the prevailing technocracy had less to do with technology as such and more to do with the perceived unfeeling rigidity of the homogenizing apparatus. Against the latter, cybernetics offered an epistemological framework that rendered technology more supple, appropriately scaled, and responsive to the social, human, and natural. This liquefaction applied to the perception, use, and development of technology. Communes, acid trips, festivals: these sites prototyped, demoed, and beta-tested the “cybernetic ecology”⁴² that would recuperate their failure.⁴³ The personal, networked computer incorporated and reproduced aspects of this milieu.

The relevance of this genealogy lies in the fact that the technophiles of the Californian counterculture not only occupied a remarkably influential niche but also essentially “endeavored [...] to produce a new type of subjectivity” as a sociopolitical strategy.⁴⁴ Potent technical machines such as personal computing, psychedelics, as well as multimedia and improvisational arts infused an experimental milieu. These elements were assembled into machines of subjectivation. Conceptually, the psychic infrastructure underlying such a cultural, political, and ethical utopia fundamentally implies the extimacy of processes of subjectivation.

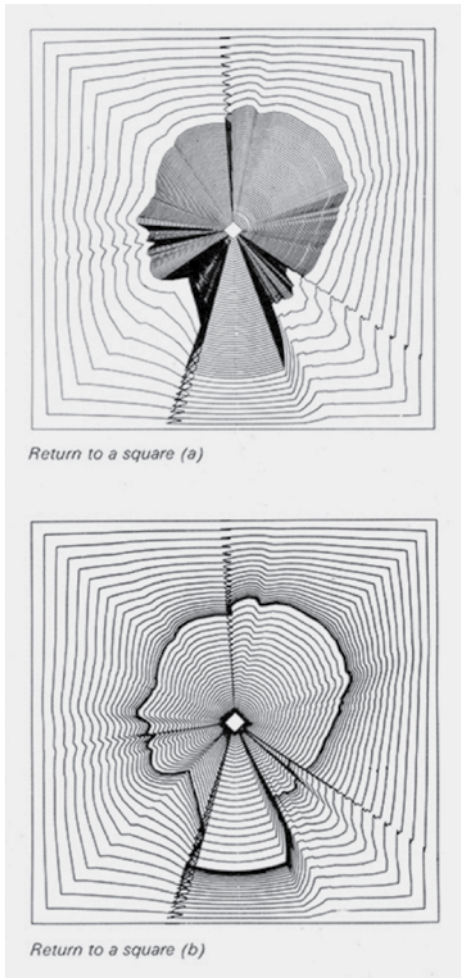
Francisco: Communication Company, 1967), <http://www.brautigan.net/machines.html#28>.

43 See Turner, *From Counterculture to Cyberculture*, 146–48; this was also a retroactive move, as for example in Stewart Brand, “We Owe It All To The Hippies,” *TIME*, Spring 1995, http://members.aye.net/~hippie/hippie/special_.htm.

44 Guattari, “La Borde,” 180.

Thus, this section of the counterculture evinces some striking commonalities in terms of problematizations and strategies with Guattarian theory and practice. Yet the dispositif that crystallized from the assemblage gestating west of the Atlantic would come to mobilize its technical resources in order to reinscribe models of interiority. Two factors would play decisive roles in this occurrence.

One, the personal computing “revolution,” like the counterculture before it, drew on American cultural reservoirs of individualism and frontier mythology and also naturalized mid-twentieth-century capitalist relations. Economically and discursively, this heritage would prove fruitful for the incipient digital intimacy by offering a solution to—that is, deferring—a problem that cybernetics and its technologies had continuously contended with: the potency of the cybernetic “universal solvent.”⁴⁵ Applied to social and technical machineries, it rendered them more flexible, supple, and responsive, but that same agnosticism to the boundaries between entities, whether cultural or natural, also extended to and put individuals’ bodily or subjective “boundaries [...] up for grabs,” thus seriously imperiling the classical model of liberal subjectivity.⁴⁶ Incorporating an individualism steeped in a mythological reservoir fortified the construction of psychological unity, the illusion “that mask[s] the cybernetic reality” of interconnected machines at once constituting and threatening to erode the subject.⁴⁷ Messages on the WELL, an early internet



Masao Komura and Kunio Yamanaka, *Return to Square*, 1968. Computer graphic. In: Jasia Reichardt, ed., *Cybernetic Serendipity: The Computer and the Arts* (New York: Studio International, 1969)

45 N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), 85.

46 Hayles, *How We Became Posthuman*, 85.

47 Hayles, *How We Became Posthuman*, 109.

48 Turner, *From Counterculture to Cyberculture*, 158–59; see also 146–47.

49 Philip E. Agre, “Beyond the Mirror World,”

in *Technology and Privacy: The New Landscape*, ed. Philip E. Agre and Marc Rotenberg (Cambridge, MA: MIT Press, 1997), 31, modified version available at <http://polaris.gseis.ucla.edu/pagre/mirror.html>; see also e.g. Charles Irby et al., *A Methodology for User Interface Design* (Palo Alto: Xerox Information Technology Group, Systems Development Division, 1977), http://www.bitsavers.org/pdf/xerox/sdd/A_Methodology_for_User_Interface_Design_Jan77.pdf.

50 Gilles Deleuze, “What Is a Dispositif?,” in Michel Foucault, *Philosopher: Essays*, ed. and trans. Timothy J. Armstrong (New York: Harvester Wheatsheaf, 1992), 159–68.

51 See for instance Roderick Perkins, Dan Smith Keller, and Frank Ludolph, “Inventing the Lisa User Interface,” *Interactions* 4, no. 1 (January 1997): 40–53; see also David Canfield Smith et al., “Designing the Star User Interface,” *BYTE*, April 1982, 242–82, <https://tech-insider.org/star/research/acrobat/8204.pdf>.

52 See Philip E. Agre, “Surveillance and Capture: Two Models of Privacy,” *Information Society* 10, no. 2 (April 1994): 101–27; see also Bernhard Rieder, “Beyond Surveillance: How Do Markets and Algorithms ‘Think’?,” *Le Foucaldien* 3, no. 1 (2017), <https://doi.org/10.16995/lefou.30>.

53 On the PC dispositif in general and its foregrounding of user agency, see Udi ben Arie and Noam Knoeller, “The Holodeck Is All Around Us—Interface Dispositifs in Interactive Digital Storytelling,”

discussion board, eagerly assimilated the networked infrastructure of the milieu to content reminiscing on the days in the commune, combining both in an “experience of interpersonal intimacy.”⁴⁸ A kind of—partially retroactive—cultural-technological causality aligned medium and message.

Two, personal computing embedded in the extant computing industry, in the logistics of its material development, in the knowledge formations and practices it imported, and in the market pressures its research and development teams responded to. Computing had long been “assimilated” and “essentialized” to bureaucratic procedures and a quasi-Taylorist information processing paradigm.⁴⁹ Thus, the development of the graphical user interface—the vanguard apparatus by which personal computing would modify “lines of sight” and produce the new modes of perception necessary for the sought-after resubjection process⁵⁰—modeled the user as an individual, specifically a bureaucratic office worker.⁵¹ Concretely, work-rationalization and step diagrams of office work laid the procedural and metaphoric groundwork for the human-computer interaction paradigm. Critically, this alignment of market logics and individual subjectivation by way of digital interfaces proceeds by the disambiguation of potential actions and concepts, thus externalizing them from the user.⁵²

This counterculture–Silicon Valley overlap thus quite effectively postponed the problem posed by the cybernetic dissolution of subjective in- and

exteriority. The most comprehensive manifestation of this “Californian solution” was the desktop “PC interface dispositif” that served as the dominant human-computer interaction paradigm from its market debut in the 1980s until the early twenty-first century.⁵³ This dispositif of interface design places user agency in the foreground and produces a spatiality consistently external to the user.

The second (and ongoing) wave of personal computing is based on smaller, even more supple devices such as smartphones and new business models of platformization. Premised on the datafication and capture of life and affective experience via gestural interfaces as well as near-ubiquitous and contextually aware computing, the second wave reorders the infrastructure constituting the user’s in- and exteriority.⁵⁴ In its interface design logics, it holds on to Californian technological liberalism’s insistence on the user as an individual, thus enabling the feeling and divulgence of intimacy. At the same time, it exploits the cybernetic dissolution of said individual via the infrastructure of algorithmicized extimacy it installs.

Digital Ethology

In recent years, interface design has gravitated toward minimalism, receding into the background in order to prioritize the presentation of content. Seeking attention, interfaces also employ a variety

in *Interactive Digital Narrative: History, Theory and Practice*, ed. Hartmut Koenitz et al., Routledge Studies in European Communication Research and Education 7 (New York: Routledge, 2015), 51–66. Regarding consistency as a design principle, see e.g. Apple Computer, Inc., *Macintosh Human Interface Guidelines*, Apple Technical Library (Reading, MA: Addison-Wesley Publishing Company, 1992); on the point of consistency and the interface’s relation to quasi-Taylorism, see Don Gentner and Jakob

Nielsen, “The Anti-Mac User Interface,” *Communications of the ACM* 39, no. 8, August 1996, 70–82, Nielsen Norman Group, <https://www.nngroup.com/articles/anti-mac-interface>.

54 Soenke Zehle, “The Autonomy of Gesture: Of Lifestream Logistics and Playful Profanations,” *Distinktion: Journal of Social Theory* 13, no. 3 (December 2012): 340–53.

of hooking mechanisms such as infinite streams and auto-playing videos.⁵⁵ These changes effectively recant the exteriority characteristic of the PC interface vis-à-vis the user. The immediacy of gestural interaction and pervasive nudging habituates users to the continuous and continually generated stream of content, curated to enable evermore-capable tracking mechanisms. Where once interfaces leaned heavily on skeuomorphic cues to afford specific interactions, now, nudges, gamification, and habituation take over as compulsion mechanisms of a behaviorist paradigm.⁵⁶ One scrolls “adrift among the consciousness of others” on Twitter’s platformized disorientation of “intimacy turned malignant” or floats through an endless river of infinitely looping TikTok videos.⁵⁷ Except *one* is not doing these things: it is not a subject interacting with objects, whether a person using their phone, an organism with its environment. Rather, the machines in question consist of database logic and reflexes, vision and haptics, institutions and dopamine release: moments of intensifying feedback loops that render any attempt to distinguish between a psychic interiority of the user and an exterior space of the infrastructure a blurry mess.

This “machine zone,” wherein “affect and behavior at once condition and are conditioned by the system,” employs the same principles that Natasha Dow Schüll finds at work in machine gambling.⁵⁸ The “desubjectifying effects” of this

sort of frictionless “uninterrupted flow” interface design draw on an experience of near-perfect contingency.⁵⁹ Yet whereas machine gambling aims this at “self-erasure,”⁶⁰ platform infrastructure maintains a thin membrane around a space of interiority. Elements that require discrete decisions, from profiles to post fields and reaction buttons, constitute the links of this membrane. Its selective permeability conditions the circulation of intimate thoughts, experiences, and inclinations—which, in turn, filter into other users’ streams. This interfacial logic performs a critical mediating and productive role in effecting new machines that operate across psychical and social domains.

Whether the Instagram feed showing friends’ family homes⁶¹ or Tinder’s extension of the “commercial revolution” of “location-based services” to “the discovery of people,”⁶² the organizing principle corresponds to what Schüll refers to as “technologically contrived contingency management.”⁶³ Here, the disambiguation effected by software plays a critical role. Schüll compares machine gambling and its straightforward stakes and concepts to the more uncertain, experiential, and messy labor of emotion or risk management that societal transformations thrust upon unprepared subjects.⁶⁴ The economic calculus of the reduced transaction costs offered by an informatized market for the “discovery of people”—or, for that matter, topics or events—enters into this social field. This same social field is undergoing liquefaction and

55 For the paradigmatic text of the “hooking” approach to software design see Nir Eyal, *Hooked: How to Build Habit-Forming Products* (New York: Portfolio, 2014); for an overview, see also Chauncey Neyman, “A Survey of Addictive Software Design” (bachelor’s thesis, California Polytechnic State University, 2017), <https://digitalcommons.calpoly.edu/cscsp/111>.

56 On the shift from skeuomorphic to “flat” design generally, see e.g. Ivan Burmistrov et al., “Flat

Design vs Traditional Design: Comparative Experimental Study,” in *Human-Computer Interaction – INTERACT 2015: 15th IFIP TC 13 International Conference, Bamberg, Germany, September 14–18, 2015, Proceedings*, ed. Julio Abascal et al., vol. 2, Lecture Notes in Computer Science 9297 (Cham: Springer International, 2015), 106–14. Note that as of 2020, this aesthetic trend is less extreme than at the initial shift to “flatness.” For a critical recounting of broad shifts in interface design, see also Cade Diehm, “On

Weaponised Design,” *Tactical Tech*, 2018, <https://ourdataourselves.tacticaltech.org/posts/30-on-weaponised-design>.

57 Chris Randle, “New Feelings: Roach Complex,” *Real Life*, June 13, 2019, <https://reallifemag.com/new-feelings-roach-complex>.

58 Natasha Dow Schüll, *Addiction by Design: Machine Gambling in Las Vegas* (Princeton: Princeton University Press, 2012), 165. This connection is made explicitly in Shoshana Zuboff, *The Age of Surveillance*

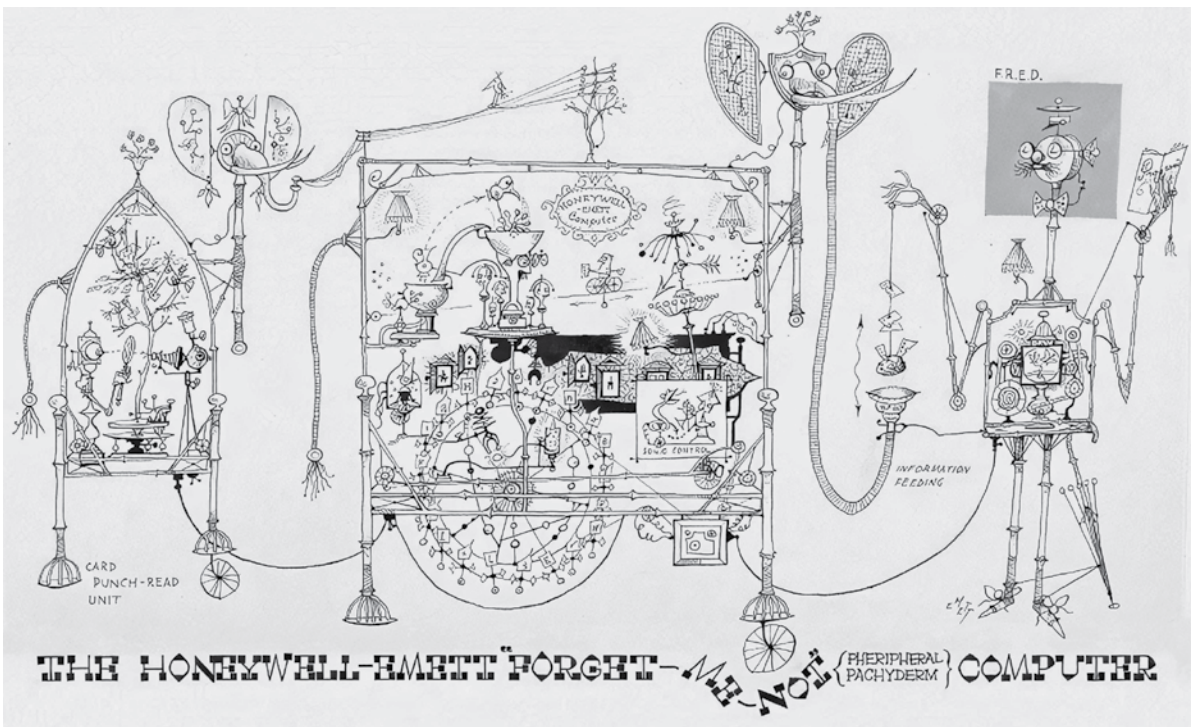
Capitalism: The Fight for a Human Future at the New Frontier of Power (New York: PublicAffairs, 2019).

59 Schüll, *Addiction by Design*, 166, 171.

60 Schüll, *Addiction by Design*, 171.

61 Alexandra Molotkow, “New Feelings: Selfish Intimacy,” *Real Life*, January 17, 2019, <https://reallifemag.com/new-feelings-selfish-intimacy>.

62 Gareth Tyson et al., “A First Look at User Activity



Frederick Rowland Emmett, *The Honeywell-Emett “Forget-Me-Not” (Pheripheral Pachyderm) Computer*, 1966. Pen ink and watercolor with bodycolor

marketization via the entangled vectors of progressive-ization, neoliberalism, and digitization. The ordering of disambiguating grammars and personalized matching algorithms interface to this complexity; gamification and habituation design patterns not only acclimate users to this sociotechnical milieu, but they also manage the anxiety and uncertainty of intersubjective contingency.⁶⁵ For

instance, as the erosion of heteropatriarchal social scripts grants subjective freedom and bodily safety, it leaves a psychosocial vacuum of uncertainty effectively responsible-ized to the individual. Platforms, with their algorithmic management of contingency, readily take up the task of reconfiguring flows of desire by disintermediating the components of the classic social milieu.⁶⁶ This cybernetic

on Tinder,” in *Proceedings of the 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining: ASONAM 2016*, ed. Ravi Kumar, James Caverlee, and Hanghang Tong (Piscataway, NJ: Institute of Electrical and Electronics Engineers), 461.

63 Schüll, *Addiction by Design*, 192.

64 Natasha Dow Schüll, “Gambled Away: Liquidating Life,” chap. 7 in Schüll, *Addiction by Design*, 189–209, especially 194–95.

65 On the question of interfaciality and complexity, see Patricia Reed, “Uncertainty, Hypothesis, Interface,” in “Scientific Romance,” ed. Beatriz Ortega Botas, special issue, *AH*, no. 00 (March 2017), archived March 22, 2018, <https://web.archive.org/web/20180322080411/http://www.ah-journal.net/issues/00/uncertainty-hypothesis-interface>; Patricia Reed, “Orientation in a Big World: On the Necessity of Horizonless Perspectives,” *e-flux Journal*, no. 101 (June 2019), <https://www.e-flux.com/journal/101/273343/orientation-in-a-big-world-on-the-necessity-of-horizonless-perspectives>; and Benjamin H. Bratton, “Interface Layer,” in *The Stack: On Software and Sovereignty* (Cambridge, MA: MIT Press, 2016), 219–49.

66 Kate Julian, “Why Are Young People Having So Little Sex?,” *Atlantic*, December 2018, <https://www.theatlantic.com/magazine/archive/2018/12/the-sex-recession/573949>; Michael J. Rosenfeld, Reuben J. Thomas, and Sonia Hausen, “Disintermediating Your

solvent technicizes, dissolves, and reassembles the social milieu and individual alike.

The management of contingency thus concerns the exposure to and conditions of experienced intimacy. The digital infrastructure, by virtue of its increasing capacity to incorporate and learn from the contingency of the psychosocial *Umwelt*—processes by which it also comes to embody and produce contingency itself—begins to take on a wisp of the machine in its Guattarian sense.⁶⁷ This widespread and privileged⁶⁸ access to the production of intimacy approves a diagnostic in terms of Deleuze and Guattari’s thesis that a “social attitude vis-à-vis machines [...] expresses [...] the position of desire in the infrastructure.”⁶⁹

In this light, the cultivation of spaces of interiority appears significant. This adds causal linkage to a concurrence Guattari already noted in the early 1990s, of the “massive development of machinic productions of subjectivity” with its “conservative reterritoralisations.”⁷⁰ The nostalgic warmth and familiar spatiality of intimacy readily offer themselves for cliché experience and commodification. Further, the careful calibration of this space as one of continuous feedback suggests that “technologically contrived intimacy management” may be *the desired projection of machinic extimacy* today.⁷¹

The scrolling machine is in motion and propels the stream. Some of the endless banalities, exhortations, and absurdities affect you. They do so because they connect to other machines: some

long dormant, others sputtering on and off again in periods of perhaps days or weeks, and some constantly running background processes. Each of these connects to vast reticulations that traverse affects, social constellations, markets, information logics, and memories. Because you cannot perceive the breadth of this space, your experience forms at a fold onto which its vast multidimensionality is projected. The projection apparatus is another machine (as everywhere) with two unstable poles, the intimate and the extimate.

Here, Lacan’s point that extimacy is not a mere counterpart to intimacy takes on renewed significance. Psychoanalysis, as revisited by Guattari, thus provides a fertile ground to think about extimacy as an artificially produced space, open in all directions, and traversed by machines. The logic of this space proves that when machines shape our behavior, behavioral patterns have already constituted amalgamations of machines. The desiring machines of intimacy operate in parallel and in countermotion to extimacy machines. Trying to question the effective topology of the psyche modulated, maintained, and formed by digital operations means, today maybe more than ever, addressing the section of transversal space folded in and through psychic machines.

67 For further treatment of digital technology through a Guattarian lens, see Andrew Goffey, “Micropolitics of Software: Rethinking Programming Practices and the Production of Subjectivity,” lecture, Subjectivity, Art and Data, Royal Holloway, University of London, 2018, London, YouTube, 1:42:57, <https://www.youtube.com/watch?v=9bqxsmFo72k>; see also e.g. Simon Crowe, “Micropolitics of a Recommender System – Machine Learning and the Machinic Unconscious,” *Spheres*, no. 5 (November 2019), <http://spheres>

-journal.org/micropolitics-of-a-recommender-system-machine-learning-and-the-machinic-unconscious.

68 For an example of the privileged access that the digital infrastructure holds to the “intimacy” of the individual, see Suzannah Showler, “New Feelings: Screen Protectiveness,” *Real Life*, February 19, 2019, <https://reallifemag.com/new-feelings-screen-protectiveness>.

69 Guattari and Deleuze, “Balance-Sheet,” 114.

70 Guattari, “On the Production of Subjectivity,” 2–3.

71 The phrase “machinic extimacy” has also been used in a Lacanian study by Marc von Boemken dismantling apocalyptic fantasies vis-à-vis technology: Marc von Boemken, *Machinic Extimacy: A Critical Mediation on the Dialectics of Technological Apocalypse* (Saarbrücken: VDM Verlag, 2009).