

Ars and Organological Inventions in Societies of Hyper-Control

For Franck Cormerais and Internum

HAVING SHOWN IN 1990 that the disciplinary societies analyzed by Michel Foucault have become societies of control and modulation—of a control and modulation exerted by the mass media, and especially television—Gilles Deleuze, in a dialogue with Serge Daney, hypothesized about the possibility of an “art of control.”

Given that digital technologies, in particular after the exposure of the immense problems posed by “big data,” constitute an age of *hyper-control* in societies that have become hyper-industrial (rather than postindustrial), is an *art of hyper-control* either conceivable or desirable?

The hyper-industrial societies that have grown out of the ruins of the industrial democracies constitute the third stage of completed proletarianization: after the loss of *savoir-faire* in the 19th century with industrial machinism and then the loss of *savoir-vivre* in the 20th century via the mass media, in the 21st century comes the loss of *savoirs théoriques*, of theoretical knowledge, via high-performance computing and correlational analysis. With the *total automatization* made possible by digital technology, theories—those most sublime fruits of idealization and identification—are deemed obsolete, and along with them, the scientific method itself—or so at least we are told by Chris Anderson in “The End of Theory: The Data Deluge Makes the Scientific Method Obsolete” [1] and by Viktor Mayer-Schönberger and Kenneth Cukier in *Big Data: A Revolution That Will Transform How We Live, Work, and Think* [2].

Founded on the *self-* and *auto-production* of digital traces, and *dominated by automatisms* that exploit these traces, hyper-industrial societies are undergoing the proletarianization of theoretical knowledge, just as broadcasting analogue traces via television resulted in the proletarianization of *savoir-vivre*, and just as the submission of the body of the laborer to mechanical traces inscribed in machines resulted in the proletarianization of *savoir-faire*.

When Deleuze referred to what he called “control societies,” it was the hyper-industrial age that he was foreshadowing. The destructive capture of attention and desire [3]

is what occurs in and through those control societies that Deleuze described in terms of the noncoercive modulation exercised by television on consumers at the end of the 20th century. These societies of control appear at the end of the consumerist epoch, and they prepare the way for the transition to the hyper-industrial epoch.

In the *automatic society* [4] engendered by societies of hyper-control, of which Deleuze could hardly have been aware but which he and Félix Guattari anticipated (in particular with the concept of *dividuals* [5]), control passes through the *mechanical liquidation of discernment*, of what Aristotle called *to krinon*—from *krinein*, a verb sharing the same root as *krisis*, decision.

Discernment, which Kant called “understanding” (*verstand*), has been automated and automatized as analytical power that has been delegated to algorithms, which convey formalized instructions through sensors and actuators but outside of any intuition in the Kantian sense—that is, outside of any experience.

In the hyper-industrial stage, hyper-control is established through a process of generalized automatization. It thus represents a step beyond the control-through-modulation discovered and analyzed by Deleuze: Now, the noetic faculties of theorization and deliberation are short-circuited by the current operator of proletarianization, which is *digital tertiary retention*—just as analogue tertiary retention was the operator of the proletarianization of *savoir-vivre* in the 20th century, and just as mechanical tertiary retention was the operator of the proletarianization of *savoir-faire* in the 19th century.

By artificially retaining something through the material and spatial copying of a mnemonic and temporal element, tertiary retention modifies the relations between the psychic retentions of *perception*, which Husserl referred to as *primary retentions*, and the psychic retentions of *memory*, which he called *secondary retentions*. Over time, tertiary retention evolves, and this leads to modifications of the play between primary retention and secondary retention, resulting in *processes of transindividuation* [6] that are each time specific—that is, specific epochs of what Simondon called the *transindividual*.

In the course of processes of transindividuation, founded on successive epochs of tertiary retention, shared meanings are formed by psychic individuals, who thereby constitute collective individuals, and what we call “societies.” The meanings formed during transindividuation processes and shared by psychic individuals within collective individuals of all kinds constitute the transindividual as the set of collective secondary retentions through which collective protentions are formed—that is, the expectations that typify that epoch.

If, as posited by Anderson [1], so-called big data heralds the “end of theory,” it is because digital tertiary retentions and the algorithms that allow them to be both produced and exploited also make it possible for reason as a synthetic faculty to be short-circuited, thanks to the extremely high speeds at which this automated analytical faculty of understanding is capable of operating [7].

Proletarianization is a fact. Is it inevitable and unavoidable? Anderson claims it is (as does Nicholas Carr, who suggests in less-joyful terms that the destruction of attention is fatal [8]). I hold a contrary position: The *fact of proletarianization* is what is provoked by the digital, which, like every new form of tertiary retention, constitutes a new age of the *pharmakon* [9]. That this *pharmakon* will have toxic effects is inevitable if new therapies and new therapeutics are not prescribed.

Such prescriptions are the responsibility of the scientific world, the artistic world, the legal world, the world of the life of the spirit in general and the world of the citizen—and, in the first place, of those who claim to represent them. Much courage is required: It is a struggle against countless interests, including those who partly suffer from this toxicity and partly feed off it. It is this period of suffering that constitutes the stage of the chrysalis.

Generally, a new *pharmakon* is begun by short-circuiting the psychosocial process. But the short-circuiting of psychic and collective individuation that is being caused today by automatized transindividuation processes, based on automation in real time and occurring on an immense scale, requires detailed analyses capable of taking account of the remarkable novelty of the digital *pharmakon*.

To achieve socialization, that is, a collective individuation, every new *pharmakon*—in this instance a new form of tertiary retention—always requires the formation of *new knowledge*. And new knowledge always means new therapies or therapeutics for this new *pharmakon*, through which are constituted new ways of doing things and reasons to do things, to live and to think—that is, to project consistencies, which constitute at the same time new forms of existence and, finally, new conditions of subsistence. This new knowledge is the result of what I call the “second moment of the epochal” redoubling—that is,

the *second moment of the technological shock* that is always provoked whenever a new form of tertiary retention appears.

Anderson can claim that the contemporary fact of proletarianization is insurmountable, which is to claim that there is therefore no way to bring about its second moment, because Anderson himself happens to be a businessman defending a libertarian perspective [10]. He remains beholden to the neoliberalism implemented in all industrial democracies after the “conservative revolution” that occurred at the beginning of the 1980s, which short-circuited processes of transindividuation via the analogue mass media, creating what Deleuze described as societies of control [11].

For Anderson, as for us, and as for the global economy, the problem is that the development, the becoming, that leads to this stage of proletarianization is *inherently entropic*: It depletes the resources that it exploits, which in this case are psychic individuals and collective individuals. It leads, in the strict sense of the term, to their *disintegration*.

Automatic society is now trying to channel and control these *dangerous automatisms* that are the psychological drives by submitting them to new retentional systems that are themselves automatic and that capture these drive-based automatisms by outpacing and overtaking them. Formalized by applied mathematics and realized concretely through algorithms devised to capture and exploit the traces generated by individual and collective behavior, *interactive, reticular automatisms* are systems designed to capture behavioral expressions.

In automatic society, those digital networks that are referred to as “social” networks channel such expressions by submitting them to mandatory protocols to which psychic individuals bend because they are drawn to do so by the so-called *network effect*, which with the addition of social networking becomes an *automated herd effect*—that is, a highly mimetic situation and one that constitutes a new form of *artificial group* in the sense given to this phrase by Freud [12].

The constitution of groups or crowds, and the conditions under which they can take action or act out, are the subjects of analyses by Gustave Le Bon, on which Freud commented at length:

The most striking peculiarity presented by a psychological group is the following. Whoever be the individuals that compose it, however like or unlike be their mode of life, their occupations, their character, or their intelligence, the fact that they have been transformed into a group puts them in possession of a sort of collective mind which makes them feel, think, and act in a manner quite different from that in which each individual of them would feel, think, and

act were he in a state of isolation. There are certain ideas and feelings which do not come into being, or do not transform themselves into acts except in the case of individuals forming a group. The psychological group is a provisional being formed of heterogeneous elements, which for a moment are combined, exactly as the cells which constitute a living body form by their reunion a new being which displays characteristics very different from those possessed by each of the cells singly [13].

It was on the basis of the analyses by Le Bon that Freud showed that there are also “artificial groups,” which he analyzed through the examples of the Church and the Army.

However, the programming industries also form, every single day, and specifically through the mass broadcast of programs, such “artificial groups.” The latter become, as masses (and Freud refers precisely to *Massenpsychologie*: the psychology of masses), the permanent, everyday mode of being of the industrial democracies, which are at the same time what I call industrial tele-cracies.

Generated by digital tertiary retention, net-connected artificial groups constitute an economy of “crowdsourcing” that must be understood in manifold ways, of which the so-called “cognitariat” would be one dimension [14]. Big data is one very large component of those technologies that exploit the potential of crowdsourcing in its various forms, of which social engineering is a major element.

Through the network effect, through artificial groups that the network effect allows to be created (such as the billions of psychic individuals who are now on Facebook), and through the crowdsourcing that allows these groups to be exploited, including through the use of big data, it is possible:

- to stimulate the production and auto-capture by individuals of those tertiary retentions we call *personal data*, which spatialize their psychosocial temporalities;
- to intervene, by circulating this personal data at the speed of light, in the processes of transindividuation that are woven through circuits that are formed automatically and *performatively*;
- through these circuits, and through the collective secondary retentions that form automatically, and no longer transindividually, to intervene in return, almost immediately, in psychic secondary retentions, which is also to say, in protentions, expectations and, ultimately, in *personal behavior*, it becomes possible to *remotely control*, to *tele-guide*, *one by one*, each of the members of a network—that is what is referred to as “personalization.”

The Internet is a pharmakon that can thus become a technique for hyper-control and social dis-integration. Unless there is a new politics of individuation—that is,

unless attention is formed through the specific tertiary retentions that make possible a new technical milieu (and every associated milieu, beginning with language)—it will inevitably become a cause of dissociation.

The hyper-industrial situation takes what Deleuze called *societies of control*, founded on modulation by the mass media, to a stage of hyper-control generated by self-produced personal data, self-collected and self-published by people themselves—whether knowingly or otherwise—and exploited through the application of high-performance computing to these massive datasets. This *automatized modulation* establishes what Thomas Berns and Antoinette Rouvroy have called *algorithmic governmentality* [15].

The digital allows all technological automatisms to be unified (mechanical, electromechanical, photo-electrical, electronic and so on) by implanting the producer into the consumer and through the production of all manner of sensors, actuators and related software. But the truly unprecedented aspect of digital unification is that it allows articulations between all these automatisms: technological, social, psychic and biological—and this is the main point of neuro-marketing and neuro-economics. This integration, however, leads inevitably to *total robotization*. It is not just public authority, social and educational systems, intergenerational relations and psychic structures that find themselves disintegrated: For mass markets to be formed and for all the commodities secreted by the consumerist system to be absorbed, wages need to be distributed so as to supply purchasing power, but it is this very economic system that has disintegrated and that is becoming functionally insolvent.

All of this can seem utterly overwhelming and hopeless. Is it nevertheless possible to invent, from out of this state of *total dis-integration* [16], an “ars of hyper-control”—for example, by re-actualizing Deleuze’s support (“almost”) in his letter to Serge Daney (the title of which was “Optimism, pessimism, and travel”) for the possibility and necessity of an “art of control”?

Television is the form in which the new powers of “control” become immediate and direct. To get to the heart of the confrontation you’d almost have to ask whether this control might be inverted, harnessed by the supplementary function opposed to power: to *invent* an art of control that would be like a new form of *resistance* [17].

To invent or to resist? I will return to this hesitation.

It is thus a matter of knowing where such a therapeutic might come from and how it might be quasi-causal. I argue that if this quasi-causality is indeed what can and must emerge from a *new history of art* (from, in other words, a *new individuation of art*), such that *art should again become an ars* (the Latin for technique and also

knowledge or know-how), this would be possible only if this *ars* were also and immediately an invention in the fields of jurisprudence (which is also to say, politics), philosophy, science and economics.

Art has a distinct role to play with respect to invention in relation to the organological [18] in general. But this is far from clear in the work of Deleuze, who thinks of this art of control much more in terms of resistance than of invention—presuming that invention is always in some way or another organological, that is, always consists in inventing technically or technologically, and not just artistically.

An “art of control” of the kind envisaged by Deleuze, or of “hyper-control,” which I attempt to describe, would not be self-sufficient—except by hearing, and making heard or reheard, the *ars* in art: As in the great epochs of artistic or spiritual inventiveness, an “art of hyper-control” would need to be inseparable from a juridical, philosophical, scientific, political and economic inventiveness.

The question of such an art is that of a *therapeutic*, for which art would be a primary, obviously inaugurating, element, yet *inherently insufficient*. It would need to invent therefore—along with all other forms of knowledge, including those technological forms of knowledge that make theoretical knowledge possible, i.e. forming, designing and inventing the *ars* of a positive *Pharmakon*—but this requires organological invention.

The pharmacological character of the digital age has become more or less clear to those who belong to it, resulting in what I am calling “net blues”: the state of fact constituted by this new age of tertiary retention has failed to provide a new state of law. On the contrary, it has liquidated the rule of law as produced by the retentional systems of the bygone epoch [19]. Property law, for example, has been directly challenged by activists through their practices in relation to free software and through reflecting on the “commons”—including some young artists who are attempting to devise a new economic and political framework for their thinking.

These questions must, however, be seen as part of an *epistemic* and *epistemological* transition from fact to law, and by canonical reference to indisputable experience—projecting law beyond fact. The passage from fact to law is firstly a matter of discovering in facts the necessity of interpreting them—that is, of projecting beyond the facts themselves (but also on the basis of facts that are not themselves self-sufficient)—onto another plane toward which they beckon: that of a consistency through which and in which we must “believe.”

The *context* of this task of thinking conceived as therapeutic is one in which automatisms of all kinds are being technologically integrated by digital automatisms. The unique and very specific aspect of this situation is the way that digital tertiary retention succeeds in totally rearranging assemblages or montages of psychic and collective retentions and protentions. The challenge is to invert this situation by having an *ars* of hyper-control instead reach toward a new idea of dis-automatization that would arise out of today’s dis-integrating automatization.

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References and Notes

This article is an excerpt from an original text by the French philosopher Bernard Stiegler, and it is born of a residency in Aix-en-Provence, France, in November 2013, organized by Alphabetville with Zinc and Leonardo/Olats, and the support of Marseille-Provence 2013, European Capital of Culture. For more information, see <www.residencezan zibar.info> and <www.arsindustrialis.org>.

- 1 Chris Anderson, “The End of Theory: The Data Deluge Makes the Scientific Method Obsolete,” *Wired* (2008), available at <www.wired.com/science/discoveries/magazine/16-07/pb_theory>. I noted in Bernard Stiegler, *What Makes Life Worth Living: On Pharmacology*, trans. Daniel Ross (Cambridge: Polity, 2013) that Alan Greenspan defended himself by arguing that in an automated financial economy it is no longer possible to theorize, and hence that he had no re-

sponsibility to take action after the series of economic catastrophes caused by the dogmas that he had applied during the subprime era, from making Madoff chairman of NASDAQ, the stock exchange for “technology stocks,” to the non-rescue of Lehman Brothers.

- 2 Viktor Mayer-Schönberger and Kenneth Cukier, *Big Data: A Revolution That Will Transform How We Live, Work, and Think* (Boston: Houghton Mifflin Harcourt, 2013).
- 3 See Bernard Stiegler, *De la misère symbolique* (Paris: Flammarion, 2013).
- 4 See Bernard Stiegler, *The automatic society* (Fayard, 2015). In July 2014 the Belgian newspaper *Le Soir* claimed that France, Belgium, the United Kingdom, Italy, Poland and the United States may lose between 43 and 50 percent of their jobs within 10–15 years <https://www.polity.co.uk/book.asp?ref=9781509506309>.

- 5 Gilles Deleuze, "Postscript on the Societies of Control," *October* Vol. 59, 3–7 (Winter, 1992).
- 6 For Gilbert Simondon, the appearance of the transindividual is the result of a psychosocial individuation whereby the living individual extends and surpasses itself, a social becoming that individuates in "collective unity" in parallel with the singular "personalization" of each psychic subject. In my philosophy, the process of transindividuation operates at the conditions of metastabilization made possible by what Simondon calls the preindividual middle, supposed by any process of individuation and shared by all psychic individuals. This preindividual middle is, for the *Ars industrialis* group and myself, artefactual, and the technic is the becoming that metastabilizes the psychic and collective coindividuation. The transindividuation is the transformation of the "I" by the "us" and one another, it is correlatively the transformation of the techno-symbolic middle in which only the "I" can meet themselves as an "us." In general, the social is produced by transindividuation, that is to say by the participation in some associated middles where some meanings shape that play between or through the persons that they constitute. There is no transindividuation without technics or technologies.
- 7 Big data technology, also called "high-performance computing," is carried out on massive datasets, wherein the treatment of data in the form of digital tertiary retentions occurs in *real time* (at the speed of light), on a *global scale* and at the level of billions of gigabytes, operating through data-capture systems that are located everywhere around the planet and in almost every relational system that constitutes a society. These are innumerable and infinitely varied: automatic teller machines, public transport gateways, mobile phones, RFID objects, supermarket checkouts, tollbooths, navigation systems, messaging services, dating sites, electronic baby monitors, social networks, MOOCs, smart city sensors and all kinds of tracking technology that are spreading as we speak into daily life at a rate unprecedented in the history of technology.
- 8 Nicholas Carr, *The Shallows: What the Internet Is Doing to Our Brains* (New York: Norton, 2010). See my commentary in Bernard Stiegler, *Pharmacologie du Front national* (Paris: Flammarion, 2013).
- 9 In ancient Greece, the term *pharmakon* designated at once the poison, the cure and the scapegoat. The *pharmakon* entered into contemporary philosophy with Jacques Derrida's commentary on Phaedrus, in "Plato's Pharmacy," in *Dissemination* (University of Chicago, 1981).
- All technics are originarily and irreducibly ambivalent. If the Internet can be described as pharmacological, this is because it is at once a technological device allowing user participation and also an industrial system appropriating user data for submission to marketing regimes that are both omnipresent and individually traced and targeted through user-profiling technologies. <www.arsindustrialis.org/vocabulary-english-version>.
- 10 See Horatia Harrod, "Chris Anderson: The do it yourself guru," *The Telegraph* (12 October 2012), available at <www.telegraph.co.uk/technology/9586312/Chris-Anderson-the-do-it-yourself-guru.html>: "As it happens, Anderson's great-grandfather, Jo Labadie, was one of the founding members of the American Anarchist movement, and Anderson himself was a punk in his twenties. ('We definitely drew lots of circles with As in them,' he says. 'I'm not sure we could spell anarchy.') There's certainly a libertarian flavor to his conversation, although he doesn't like to be pigeonholed. . . . Anderson's vision is unsparing: it's a world of perfect competition and pure capitalism. . . . 'I think infinite competition has made us better,' he says. 'We've all found ways to add value in a world of infinite competition.' It's a grandiose vision, too. 'I'm motivated primarily by social change, and my preferred tool is business.'"
- 11 I have proposed an analysis of this calamitous becoming, which runs from the conservative revolution to the events of 2008, in *What Makes Life Worth Living*. Digital tertiary retention, however, brings to this ultra-liberal war against the state, against the *res publica*, new weapons that are yet to be subject to critique.
- 12 Sigmund Freud, "Group Psychology and the Analysis of the Ego," in *The Standard Edition of the Complete Psychological Works* Vol. 18, trans. James Strachey (London: Hogarth Press, 1955) p. 124.
- 13 Gustave Le Bon, *Psychologie des foules* (1895), cited in [9], pp. 72–73.
- 14 See Christopher Newfield, "The Structure and Silence of the Cognitariat," *Eurozine* (2010), available at <www.eurozine.com/articles/2010-02-05-newfield-en.html>. And see my commentary in *Pharmacologie du Front national*, §38.
- 15 Thomas Berns and Antoinette Rouvroy, "La gouvernementalité algorithmique et perspectives d'émancipation: le disparate comme condition d'individuation par relation?," *Réseaux* Vol. 31, No. 177, pp. 163–196 (2013).
- 16 My description of this situation thus refers to Alain Supiot's discussion of the total market, himself referring to total mobilization in Ernst Jünger's sense. See Alain Supiot, *The Spirit of Philadelphia: Social Justice vs. the Total Market*, trans. Saskia Brown (New York and London: Verso, 2012).
- 17 Gilles Deleuze, "Letter to Serge Daney: Optimism, Pessimism, and Travel," in *Negotiations*, trans. Martin Joughin (New York: Columbia University Press, 1995), p. 75, translation modified, my emphasis. Deleuze speaks of "supplementary function," referring to Daney and assuming that the latter uses the term in reference to Derrida—which is also to say, therefore, in reference to the trace in the sense of *Grammatology*, which I argue calls for thinking the process of grammatization—and in reference, obviously, to the *pharmakon*.
- 18 This term is derived from the Greek *organon*, meaning tool or device. "General organology" is a method of analysis conjoining the history and the becoming of physiological organs, artificial organs and social organizations. See also Georges Canguilhem's work in *The Normal and the Pathological*. After the concept elaborated by Bertrand Gille, there is *hyper-maladjustment* when the artificial organa forming the technical system short-circuit both the level of organs and psychosomatic apparatuses (including genital organs and the brain) and the level of social organizations. This is what leads to what we call a generalized proletarianization. More: <www.arsindustrialis.org/vocabulary-english-version>.
- 19 This is a specific case of what I have proposed analyzing as a doubly epochal redoubling.

Manuscript received 5 May 2015.

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