VI   Context Awareness
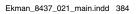
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21 Feeding the Serpent Its Own Tail: Counterforces to Tactile Enclosure in the Age of Transparency

Inke Arns

Giedion, Mendelsohn, Corbusier turned the abiding places of man into a transit area for every conceivable kind of energy and for electric currents and radio waves. The time that is coming will be dominated by transparency.

—Walter Benjamin, "The Return of the *Flâneur*"

The coils of a serpent are even more complex than the burrows of a molehill.

—Gilles Deleuze, "Postscript on the Society of Control"

With a fictitious newspaper report allegedly appearing in the year 2067—bearing the headline "Anna Kournikova Deleted by Memeright Trusted System"—David Rice (2001) pursued to a logical end the situation of transparency coupled with the ever stricter persecution of copyright infringements we are witnessing today. The perfidiously phrased newspaper report details the death of former professional tennis player and model Anna Kournikova. Kournikova, having had her looks protected against illegal look-alikes, had been identified as an imitation of herself (an "illicit copy") while on an unofficial trip to the Pacific Rim and thereupon eliminated by a potent microwave beam from a satellite operated by the Memeright Trusted System.

David Rice's story perfectly illustrates the change from the enclosing milieu of the disciplinary society to the flexible modulations of the society of control. Whereas the disciplinary societies described by Michel Foucault (1977) are characterized by built enclosures (the prison, the school, the factory, the hospital), the control societies of today are permeated by continuous modulations. These, soft modulations resemble a "self-transmuting molding continually changing from one moment to the next, or like a sieve whose mesh varies from one point to another" (Deleuze 1995, 179). Both coils and burrows are "apparatuses of capture; in burrows or coils, either way, you are caught" (Bogard 2007). Burrows, however, are "rigid, arborescent structures, assembled as series of confined spaces or interiors. . . . Serpents' coils, on the other hand, are meshes rather than series. A more flexible form of enclosure than burrows, they adjust to the body as it moves and wherever it moves" (Bogard 2007). As suggested by Gilles

Deleuze's analysis, today "rigid mechanisms of enclosure are giving way to supple ones that have lost none of their power to constrict the body. The new mechanisms can position and fix the body independently of its location" (Bogard 2007). With coils as a kind of mobile confinement, "control is more intensive, enclosure more supple, and confinement to fixed interiors redundant" (Bogard 2007).

Control society's supple mold has three distinctive attributes: (1) transparency (diaphanousness or invisibility that eludes direct sensory perception); (2) immateriality (as the connection between individual materialities), and (3) performativity ("Code is Law,"[1] computer code becomes the law). These three in turn create a so-called fourth attribute, "smooth space" (Deleuze and Guattari 1987, 493) or "haptic space" characterized not by (pan)optic visuality and distance perception, but by haptic visuality within a close-range space.

Transparency

Today, the age of transparency that Walter Benjamin in 1929 optimistically considered to be emerging in the glass buildings designed by his architect contemporaries seems to be ambiguous. For one thing, not only light waves pass through the transparent buildings, but any number of electromagnetic waves deriving from a very diverse range of technical sources.[2] For another, the notion of "transparency"—with its double meaning of visibility and invisibility or with the ambivalence of the panoptical and the postoptical (see Arns 2005)—turns out to be very suitable for the characterization of contemporary performative (information) architecture and spaces. Michel Foucault's (1977) notion of panopticism is derived from Jeremy Bentham's "panopticon," the blueprint for a perfect prison that makes the inmates of a circular prison permanently visible to a warden placed in the middle. However, I use the term *postoptical* to denote all the digital data streams and (programmed) communication structures or architectures that are monitored at least as easily as such prisoners yet consist of visual information in only a very small part ("dataveillance").

Although in everyday usage the term *transparency* stands for simplicity, clarity, and controllability through viewability (as suggested, for example, by the names "Transparency International"[3] and "Prozrachnyi Mir" [Transparent World]),[4] in computer science it means the very opposite—namely, invisibility and information concealment. A "transparent" interface is one that the user can neither detect nor notice. Although this concealment of (superfluous, excessive) information is often expedient in terms of reducing complexity, it can also lull the user into a false sense of security: the invisibility of the interface suggests a direct view of something, an unimpaired transparency in which it would be foolish, of course, to believe. For that reason, Lev Manovich writes: "Far from being a transparent window into the data inside a computer, the interface brings with it strong messages of its own" (2001, 65). Making this "message" visible is a matter of directing attention to the transparent "windowpane" itself. Just

as at the press of a button the glass facades of buildings can be transformed from transparent to translucent—that is, semitransparent or semiopaque surfaces—and thus become visible, "making the message visible" is a question of wrenching the transparency out of postoptical information–technical structures. Applied analogously to communication networks, it would be a matter of making opaque and therefore perceptible the transparent distribution structures of economic, political, and social power. It is ultimately a matter of restoring to the information-technology-based notion of transparency the original meaning of clearness and controllability through visibility.

Immateriality

The more regulated by software everyday things become, the less accessible they are to sensory perception in our everyday dealings with them. However, the fact that they are vanishing from sight does not mean that they are not there. On the contrary, the increasingly programmed world surrounding us means that rules, conventions, and relationships that are basically changeable and negotiable are being translated into and fixed in software. Recorded in software, immaterial structures are at least—and herein lies the paradox—as permanent and perhaps even more powerful than material structures and architecture. The secret (and uncanny) making invisible of the world through software deployment not only leads to a withdrawal from visibility and perceptibility but also means that structures become immaterial. In this case, however, the term *immaterial* does not imply that these structures are any less effective than their solid counterparts. To take *immaterial* to mean the opposite of *material* would be to wholly misread the term (see Terranova 2006, 31). Rather, one must learn to grasp the immaterial as something that turns "qualitative, intensive differences into quantitative relations of exchange and equivalence" (Terranova 2006, 31). The immaterial establishes relations between isolated materialities—things and people, wares and individuals, objects and subjects—and in this way is able to compute profiles, for instance, of consumers or movements at very high speed.[5] At every given second, the immaterial is *somewhere* (as opposed to nowhere), between the things. It encloses the materialities, elastically changes shape, agilely follows objects and bodies, and constantly establishes connections. The immaterial is admittedly not that "what holds the world together in its innermost self," as described in Goethe's *Faust*, but it forges together the things in the world by interrelating them and does so more efficiently than rigid structures were ever able to. Thus, software turns out to be a very hard substance, and immateriality to be quasi-factitious materiality that most of the time eludes our (visual, tactile) sensory perception.

Performativity

Programmed structures consist of two kinds of texts: a visible, "front end" (the graphical user interface) and an invisible, transparent, "back end" (the software or program

code). These texts are to each other as phenotext is to genotext in the sphere of biology. The surface effects of the phenotexts (graphical user interfaces) are called up and controlled by the texts (program codes or source texts) effective below the surface. The characteristic attribute of program code is that it unites saying and doing (action); in other words, code as a performative speech act is not a description or representation of something but instead affects directly, sets in motion, times effects. Code does what it says.

However, code affects not only the phenotexts—that is to say, the graphic user interfaces. Coded performativity has equally direct and even political effects on the (virtual) realms through which we move. "Program code increasingly tends to become law," according to Lawrence Lessig (2000). Today, control functions are integrated directly in the architecture of the network—namely, in its code. In *Code and Other Laws of Cyberspace* (1999), Lessig uses the Internet provider America Online (AOL) as a compelling illustration of the way in which program architecture can hinder, with the aid of the code that defines it, any form of virtual "rebellion," for instance, and largely control the users. Graham Harwood describes this transparent world as an "invisible shadow world of process" (2001, 47). It is a world with direct and also political consequences for the virtual and real spaces in which we move today: by stipulating what is possible in these spaces and what is not, it mobilizes or, as applicable, immobilizes its users. The question of permeability—Access? When and for whom?—is central for contemporary spaces and closely linked to the notion of performativity (see Arns 2005). "The conception of a control mechanism giving the position of any element within an open environment at any given instant (whether animal in a reserve or human in a corporation, as with an electronic collar), is not necessarily one of science fiction," writes Gilles Deleuze. "Félix Guattari has imagined a city where one would be able to leave one's apartment, one's street, one's neighborhood, thanks to one's (dividual) electronic card that raises a given barrier; but the card could just as easily be rejected on a given day or between certain hours; what counts is not the barrier but the computer that tracks each person's position—licit or illicit—and effects a universal modulation" (1995, 181–182).

So-called radio-frequency identification (RFID) technology, for example, makes possible a tracking of the very kind described in the previous paragraph (see Hayles, chapter 31 in this volume; "Radio Frequency" n.d.). RFID tags are tiny radio labels, passive wireless transmitters, able to send and save information, which are expected to become replacements for barcode labels. They are already in use in goods logistics, human surveillance, and antitheft protection. In response to a weak wireless energy pulse, RFID tags return to a reading device the information stored on them. The connection is already possible over a distance of up to several hundred meters—without the bearer of the tag even noticing. In addition, the technology enables objects to be unambiguously identified worldwide; in addition to the unnoticed reading out of information, this capability is a further significant attribute distinguishing RFID from

a conventional barcode. RFID allows goods flows to be retraced without gaps and thus opens up whole new dimensions of data mining (for instance, through the compilation of consumer profiles). If one considers the potential deployment of RFID technology on and inside people—say, via passports or health insurance cards provided with RFID chips on which biometrical data are stored or via RFID tags with biometrical data implanted below the skin (see "Wo gibt es RFID?" n.d.)—then new forms of ubiquitous control are conceivable.

Haptic Space

David Rice's Anna Kournikova was detected and eliminated thanks to her moving about in "haptic space." Drawing on Deleuze and Guattari's concept of "smooth space" (1987, 493), Laura U. Marks (2004) has suggested that whereas panoptical regimes (Foucault's disciplinary societies) relied on optical visuality based on distance perception, postoptical regimes (Deleuze's society of control) rely on "haptic visuality," involving close-range space. This haptic space is characterized by a lack of distance and immediate connectedness of the body to its surroundings. The body is continuously enveloped by a "self-transmuting molding" (Deleuze 1995, 179), which is changing shape at any time, filling up cavities as they form. Envelopment of such perfection hinders (and this is where performativity comes in) forward movement at least as efficiently as built enclosures do and perhaps even more so.

The age of transparency is marked by a dual structure of the panoptical and the postoptical,[6] with a growing tendency toward the latter. On one side, panoptical visibility is being continuously enhanced in state and private-sector structures of surveillance satellites (see Parks 2005). On the other side, in parallel with this panoptical visibility, the technical structures that observe and act performatively have increasingly withdrawn into invisibility (embeddedness, ubiquitous computing). In many cases, performative structures are recognizable only by their effects but are no longer necessarily visible. Software, for example, eludes human perception because it involves "inconspicuous" performative (geno)texts lying below the visible surfaces (phenotexts) that generate them. We are confronted, as Marks (2004) has formulated, with a dialectics of optic and haptic visuality, of distance perception and close-range space. However, control society is increasingly based especially on the latter, haptic space: "And you understand why McLuhan saw in the era of the great electronic media an era of tactile communication. We are closer here in effect to the tactile than to the visual universe, where the distancing is greater and reflection is always possible" (Baudrillard 1983, 123–124). In the case of Rice's fictional Kournikova, reflection occurs only after the fact.

How can political or artistic action or both be articulated in such haptic, close-range spaces that have become imperceptible, withdrawn from direct view? In view of this

software-assisted disappearance of the world, where and how can potential spaces of the political (re)emerge? Various media, net, and software art projects have in recent years developed approaches that make opaque (that is, perceivable) the transparent structures of economic, political, and social power distribution in communication networks (see Arns 2002a, 2005, 2008). The concern of such projects is to transpose information-technical structures from a state of transparency to one perceptibility. In an age of software-assisted implosion of the political, this first step alone is eminently political. One way of making sense of a transparent and complex world that increasingly withdraws from human perception is—if we remember David Rice's story about Anna Kournikova—*storytelling.*

Within media and net activism, it is not only the technical hacks and the hardcore programming code—the *fact*, if you will—that are performative in the sense of Austin's speech-act theory, but also the narratives—the *fiction.* Narrative and counternarrative not only assign meaning to the disparate, unconnected elements of the world we perceive, but also, as performative text, also have the potential to mobilize people. Fiction has an effect on those it is being told to as well as on those who are engaged in further distributing it. By infusing and releasing these stories (hoaxes) into the mass media (i.e., by hacking the mass media), it becomes possible to launch a certain topic and to reach a global media audience. The Swiss–Austrian artist duo UBERMORGEN.COM are masters of storytelling in, with, and through the media.[7]

UBERMORGEN.COM: The *EKMRZ Trilogy*

Hans Bernhard, after leaving the corporate art group etoy (see Arns 2002b; Wishart and Boschler 2002), "the first street gang on the information super highway",[8] which he had cofounded in the early 1990s, started the company UBERMORGEN.COM with Maria Haas, registered in Germany, Austria, Switzerland, and Bulgaria. Bernhard and Haas describe UBERMORGEN'S activities as "media hacking" wherein it distributes its contents via guerilla marketing tactics and so-called shock marketing. However, it is storytelling that is at the very core of these media-hacking activities.

"*202.345.117 years until GWEI fully owns Google.*"[9] This surprising yet poetic statement opens the first part of UBERMORGEN.COM's *EKMRZ Trilogy*, entitled *GWEI— Google Will Eat Itself* (2005–2008) (figure 21.1). Together with colleagues Paolo Cirio and Alessandro Ludovico,[10] UBERMORGEN tackles the trinity of EKMRZ ("e-commerce") giants that survived the crash of the dotcom boom and are now almost generic names for unique business models—and monopolies—on the Internet: Google, Amazon, and eBay. *The EKMRZ Trilogy* looks at the monopolists' distinctive business models and proposes creative ways to "short-circuit" the immaterial wiring of these models. By obediently turning themselves into the ultimate torchbearers of the Google advertising system, UBERMORGEN.COM made Google "eat itself" and thus made themselves

Figure 21.1
GWEI—Google Will Eat Itself, part I of the *EKMRZ Trilogy* (2005–2009). Screenshot. Permission kindly granted by UBERMORGEN.COM.

Google owners in a remote future. They also performed another kind of hack on the Amazon system by shamelessly downloading the digital content of thousands of books. Within *The EKMRZ Trilogy*, eBay, in turn, is made to play the tune of e-commerce, created by transforming eBay user data into the dull yet hypnotic soundtrack of ubiquitous online micropayments.

GWEI—Google Will Eat Itself generates money by serving Google text advertisements on a network of hidden Web sites. With this money, the artists automatically buy Google shares: "We buy Google via their own advertising! Google eats itself—but in the end we own it! By establishing this autocannibalistic model we deconstruct the new global advertisement mechanisms by rendering them into a surreal click-based economic model."[11] The artists have calculated that it will take exactly 202.345.117 years until GWEI fully owns Google. By rerouting some of the immaterial wires of the digital-information economy, it is thus potentially possible to hack the system—no matter that the result will only be visible more than two hundred million years later.

"We have stolen the invisible."[12] This confession opens the story of the second EKMRZ hack, *Amazon Noir—The Big Book Crime* (2006–2007) (figures 21.2 and 21.3), which involves assaults on stage coaches filled with digital gold and the somber highwaymen of the information superhighway. The project exploited Amazon's "Search

inside the Book" feature—a service that allows customers to search for keywords in the full texts of the 250,000 books in its catalog. Between July and October 2006, EKMRZ "stole" three thousand digital books were from the Amazon Web site by targeting weaknesses in the "Search inside the Book" feature. A specially programmed software "bombarded the Search Inside™ interface with multiple requests, assembling full versions of texts and distributing them across peer-to-peer networks (P2P)" (Dieter 2007). Michael Dieter points to the fact that far from being a purely malicious and anonymous hack, the, "heist" was publicized as a tactical-media performance—based, one should add, on a script that recalls a spaghetti Western:

The Bad Guys (The Amazon Noir Crew: Cirio, Lizvlx, Ludovico and Bernhard) stole copyrighted books from Amazon using sophisticated robot-perversion technology coded by supervillain Paolo Cirio. A subliminal media fight and a covert legal dispute escalated into an online showdown with the heist of over 3,000 books at the centre of the story. Lizvlx from UBERMORGEN.COM had daily shoot-outs with the global mass media, Cirio continuously pushed the boundaries of copyright (books are just pixels on a screen or just ink on paper), Ludovico and Bernhard resisted
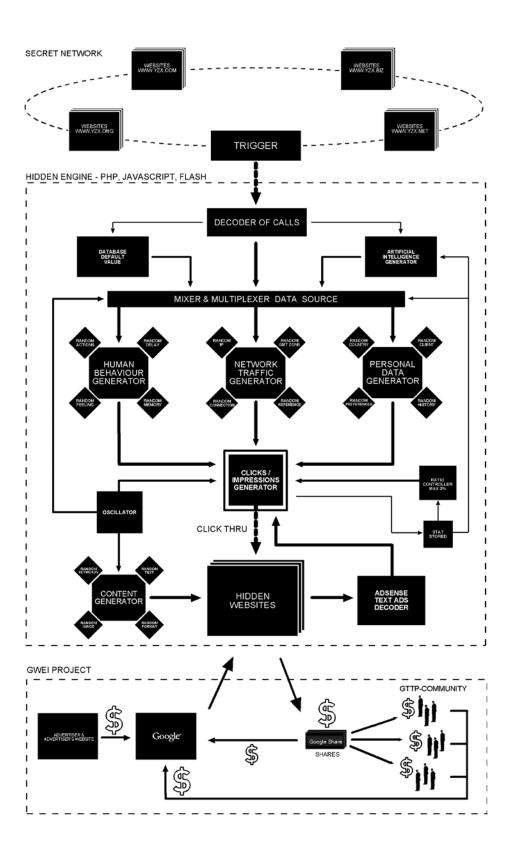

Figure 21.2
Amazon Noir—The Big Book Crime, part II of the *EKMRZ Trilogy* (2006). Screenshot. Permission kindly granted by UBERMORGEN.COM.

Figure 21.3
Amazon Noir—The Big Book Crime, part II of the *EKMRZ Trilogy* (2006). Diagram. Permission kindly granted by UBERMORGEN.COM.

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kickback-bribes from the powerful Amazon.com until they finally gave in and sold the technology for an undisclosed sum to Amazon. Betrayal, blasphemy and pessimism finally split the gang of bad guys. The good guys (Amazon.com) won the showdown and drove off into the blistering sun with the beautiful femme fatale, the seductive and erotic massmedia.[13]

Dieter suggests that the extensive use of imagery and iconography from the noir genre should be seen as an explicit reference to the increasing criminalization of copyright violation through digital technologies. At the same time, the term *noir* also refers to the fact that it is increasingly difficult (in *Amazon Noir*, as in real life) to distinguish between the "bad guys" and the "good guys." The politics of file sharing, Dieter continues, essentially depend on the "command of imaginaries": *Amazon Noir* specifically "dramatizes these ambiguities by framing technological action through the fictional sensibilities of narrative genre" (2007).

The Sound of eBay (2009) (figure 21.4), the final chapter of the *EKMRZ Trilogy*, provides us with the ultimate soundtrack of e-commerce that underlies most online activities. It generates unique songs from eBay user data. When any eBay user name and email address are entered and "generate" is clicked, a "score-file" is created from the data harvested by the software, and this file is then transformed "into your unique but uniform song and presented in teletext porn style!"[14] UBERMORGEN.COM continue in their inimitably overenthusiastic style: "We love it! *The Sound of eBay* is

Figure 21.4
The Sound of eBay, part III of the *EKMRZ Trilogy* (2008–2009). Screenshot. Permission kindly granted by UBERMORGEN.COM.

our affirmative low-tech contribution to the ATOMIC soundtrack of the peer-to-peer hyper-catastrophic shock-capitalism. reference: Peter Weibel's song *Sex in der Stadt* (Sex in the City) from 1982—Hotel Morphila Orchester, where PW, 'raps' (sings) sex-ads from a newspaper."[15] Indeed, Peter Weibel's singing of sex ads[16] provides an interesting frame of reference for this project: it is about reading the underlying texts of our surroundings and reproducing them in real time, like a parallel reading (input) and automatic writing (output) that recalls the surrealist writing experiments of *écriture automatique* or glossolalia (speaking in tongues). We are also reminded of other artistic performances: for example, Gebhard Sengmüllers's *TV Poetry* (1993–1994),[17] Igor Stromajer's *Oppera Internettikka* (since 1998),[18] and Christophe Bruno's *Human Browser* (2004).[19] These projects limit the factor of intentionality—that is, the active role of the artist—in favor of casting themselves in the role of a medium through which *language speaks*. The artist appears as an entity loaded with preexisting language that cannot utter anything but the discourse of the Other. Jacques Lacan (1966) defines this repetition as the "insistence of the letter" (*l'instance de la lettre*)—that is, the compulsive repetition of certain signifiers or letters despite the subject's conscious attempts to repress them. "Repetition," he writes, "is fundamentally the insistence of speech" (1993, 242). However, in *The Sound of eBay* it is not the voice of the radically decentered subject that produces language utterances, but a software program that generates a catchy eight-bit musical soundtrack from eBay user data. It reminds us that underneath the shiny surfaces and glossy interfaces there is a layer of performative code and precious personal data that performs the constant modulations crucial for the functioning of today's society of control.

Feeding the Serpent Its Own Tail

In their *EKMRZ Trilogy*, UBERMORGEN.COM formulates dark visions of the "information society" and then turn these visions into highly entertaining, blithe narratives about the age of transparency, using the format of film scripts, adventure novels, and tabloids. By forcing Google to eat itself, by stealing the invisible, and by making eBay's code play stupid tunes it was not supposed to play, UBERMORGEN is short-circuiting (for real because these hacks are not merely stories) the three online services' internal wirings, which in fact constitute a part of the "self-deforming cast" of the society of control. Supple, constantly self-adapting modulations envelop the bodies and objects moving about in "haptic space." This postoptical haptic space, however, is transparent, invisible. Therefore, it cannot be observed by visual means. It can be resisted only by "*participating in the very activity that is being denounced precisely in order to denounce it*" (Owens 1980, 79, emphasis in original)—that is, by reverse coding, hacking, and engineering tools for resisting network domination. Counterforces to tactile enclosures have started to emerge on the horizon (net activism, software art). Let us see what happens if we feed the serpent more of its own tail.

Notes

1. "Code is Law" is Lawrence Lessig's motto, coined in *Code and Other Laws of Cyberspace* (1999).

2. See the exhibition catalog *Waves—the Art of the Electromagnetic Society* (Medosch, Smite, Smits, et al. 2008; also *Waves*[2006] at http://rixc.lv/06).

3. Transparency International is an organization combating corruption worldwide; see http://www.transparency.org.

4. This Russian company supplies high-resolution satellite images of earth for private business purposes; see http://www.transparentworld.ru.

5. "The digital language of control is made up of codes indicating whether access to some information should be allowed or denied. We're no longer dealing with a duality of mass and individual. Individuals become '*dividuals*,' and masses become samples, data, markets, or '*banks.*'" (Deleuze 1995, 180).

6. I refer to the present as a postoptical age in which program code—which might also, with reference to Walter Benjamin, be described as a "postoptical unconscious"—is becoming "law" qua performative text. See Benjamin 1985, 243.

7. For more on UBERMORGEN's most famous project to date, *Vote-Auction—Bringing Democracy and Capitalism Closer Together* (2000), see http://www.vote-auction.net.

8. From http://www.hijack.org.

9. From http://gwei.org/index.php.

10. Italian programmer Paolo Cirio and *Neural.it* editor Alessandro Ludovico worked with UBERMORGEN.COM on *Google Will Eat Itself* (2005) and *Amazon Noir* (2006), but not on the *Sound of eBay* (2008–2009).

11. From http://www.ubermorgen.com/EKMRZ_Trilogy.

12. From http://www.amazon-noir.com/TEXT/Thieves_of_the_invisible.pdf.

13. From http://www.ubermorgen.com/EKMRZ_Trilogy.

14. From http://www.sound-of-ebay.com/pdfs/SoE_Press_Release_no_1.pdf.

15. From http://www.ubermorgen.com/EKMRZ_Trilogy.

16. See http://www.youtube.com/watch?v=rvIMbUGo9Fk.

17. See http://www.gebseng.com.

18. See http://www.intima.org/index_1995-2007.html.

19. See http://www.christophebruno.com/?p=83.

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