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Diabolical Invisibility or The Truth is Out There

Once our authoritarian technology consolidates its powers, with the aid of new forms of mass control, its panoply of tranquilizers and sedatives and aphrodisiacs, could democracy in any form survive?
Lewis Mumford

The panoramic gaze is no longer part of the same space as the perceived objects. It sees the objects, landscapes etc. through the apparatus with which it moves through the world.
Wolfgang Schivelbusch

In our efforts to battle terrorism and cyberattacks and biological weapons, all of us must be extremely aggressive.
Bill Clinton 5.22.98

Data, streaming with the energy about that of a flashlight bulb, delivers "images" from Sojourner of the Mars surface, from Documenta X in Kassel a video stream delivers a lecture by Haroun Farocki in "real time," a credit bureau quietly opens on-line access to credit histories (and is abruptly closed), the US Department of Social Security closes its web-based resource because inappropriate uses abound, IRS employees are censured (and fired) for "browsing" tax returns without justification, credit card activities are tracked and sold as "profiles" of consumers, "cookies" are gathered from log-ins to countless web sites delivering invaluable data to network providers and advertisers, two marines are court-martialed because they refuse to provide DNA for the Department of Defense's DNA registry, a cloned ewe poses in a Scottish yard as the signifier of the engineering of biology, a defeated Kasparov holds his head in his hands as "humanity" is defeated by computer programmers, retinal scanners are being experimented with at ATM machines for user verification, reconnaissance satellites routinely provide images with resolutions of less than a half a meter, nearly ubiquitous surveillance cameras record daily activities with dizzying impunity, a TV channel in Los Angeles broadcasts a live suicide, the list goes on and on. Despite the often excessive debates about the epistemology (or lack thereof) of simulated, virtualized, or rendered worlds, it is the legitimization, presence, and pervasiveness of information that omnivorously dematerializes an increasingly destabilized public sphere. A cross between visibility and availability, the "flow" of data demarcates a dynamic system in which the distinguishability of the self, the economy, and ultimately power are "transparent," virtually invisible and in which representation (with its long relationship with authority and subjectivity) again becomes a pivotal issue.

In a May 22, 1998 speech to the class of the Naval Academy, President Clinton encouraged the graduates to

…never forget to cherish your loved ones, and always be grateful that you have been given the opportunity to serve, to protect for yourselves and for your loved ones and for your fellow Americans the precious things that make life worth living, and freedom worth defending,

promoted the National Infrastructure Protection Center, and outlined a framework for a 21st century in which

…our foes have extended the fields of battle–from physical space to cyberspace; from the world's vast bodies of water to the complex workings of our own human bodies. Rather than invading our beaches or launching bombers, these adversaries may attempt cyberattacks against our critical military systems and our economic base. Or they may deploy compact and relatively cheap weapons of mass destruction–not just nuclear, but also

chemical or biological, to use disease as a weapon of war. Sometimes the terrorists and criminals act alone. But increasingly, they are interconnected, and sometimes supported by hostile countries.

This while he was pleading (unsuccessfully) with Pakistan to forego the catastrophic reflex of nuclear tests destined to initiate an arms race with India (and perhaps China). This while NATO was initiating "military exercises" to constrain the heinous Yugoslavian assaults on ethnic Albanians in Kosovo. This while the stalemate on "weapons of mass destruction" with Iraq continued. This while the corrupted economy of Indonesia lay in shambles and the pacific rim economy reverberates with looming crisis. This while Federal Reserve chairman Alan Greenspan testified to congress that the economy "is as impressive as any I have witnessed in my near half-century of daily observation of the American economy." This while the National Rifle Association elects Charlton Heston to its presidency (a post-reaganesque gesture of pathetic depth) to revitalize the debate about the so-called "right to bear arms" after a spate of stunning student paramilitary shooting sprees. This after a communications satellite suspiciously went haywire, cutting off paging and broadcast (like National Public Radio) services to millions for several days. This while the much anticipated opening of the X-Files movie moves from tv to the big screen as a signifier of the scale and market for conspiracy.

Two months before (March 24, 1998) Michael A. Vatis, Deputy Assistant Director and Chief, National Infrastructure Protection Center of the Federal Bureau of Investigation testified before the Congressional Joint Economic Committee Washington, DC. on Cybercrime, Transnational Crime, and Intellectual Property Theft. His testimony outlined serious threats to security:

But the Internet and other advances in information technology do not merely give criminals new means to commit traditional crimes like theft or fraud. They also allow criminals and other malicious actors to cause new types of harm that go well beyond the potential loss to the individual victim and can affect our national economy and, indeed, our national security. […]

What type of harm am I talking about? The everyday functioning of our economy depends on the delivery of certain critical services. While we once got along fine without electrical power, think of the consequences if the power went out for a week–not just in one town or city, but across the whole Eastern Seaboard. And while plenty of people made their fortunes before the telephone, imagine what would happen to the Fortune 500 if they were deprived of telephone service for a few days. […]

But this reliance on new technologies comes with a price, and that price is a new vulnerability to those who would cause harm. For just as the new technologies make it easier for companies to communicate and control their businesses, they also make it easier for malicious actors to cause harm. The new vulnerability stems in part from the fact that the Internet and modern telecommunications systems are inherently open and accessible. That means that, with a certain amount of technical skill, one can use these communications media to get inside a company's or a government agency's computer system without ever physically penetrating its four walls. Moreover, the increased centralization of command and control systems afforded by the new technologies also means that, once inside that system, a potential malefactor can use those same technologies to cause harm over a much broader area than he ever could have hoped using physical weapons such as a bomb. […]

Software is one weapon of cyber attacks. Such software includes, among others, computer viruses, Trojan Horses, worms, logic bombs, and eavesdropping "sniffers" that can be used to obtain passwords that allow hackers "root access" control of a computer system. Advanced electronic hardware also can be used in cyber attacks, including such items as high-energy radio frequency (RF) weapons, electromagnetic pulse weapons, RF jamming equipment, or RF interception equipment. These weapons can be used to destroy property and data; intercept communications or modify traffic; degrade the integrity of data, communications, or navigation systems; and deny crucial services to users of information and telecommunications systems.

"Look around," write John Arquilla and David Ronfeldt, in the first chapter of *In Athena's Camp: Preparing for Conflict in the Information Age*[1],"No 'good old-fashioned war' *is in sight*." (my emphasis) Much like the justifiable, curious and questionable inability (or

complicity) of the so-called "intelligence community" to anticipate the Indian nuclear tests, Arquilla and Ronfeldt de-emphasize material war by reinforcing "a revolution in military affairs" (the RMA) brought on after the Gulf War of 1990-91. Indeed the introduction to *In Athena's Camp* was written by the perennial historical reductivists Alvin and Heidi Toffler, whose Third Wave metaphor pervades the corporate wired generation's progressive "ideology." Oscillating between the tangible and the intangible, they outline a fascinating scenario in which "knowledge" has "moved from a peripheral to a central position." Yet the most interesting positions established in their essay, *The New Intangibles*, comes in the assessment of the links between military and media:

[…] as the Third Wave further transforms the economy, society, and global power relations, the importance of the new intangibles to the military will only grow.

So will the significance of intangibles that are not under the control of armed forces. or even governments, for that matter. In the era of intangible weaponry, some of the biggest guns of all are deployed by the media.[2]

These "new intangibles" include "everything from satellite-based tactical intelligence to strategic perception management at the geopolitical levels." Undoubtedly poised in a sphere in which staggering instability and vulnerability are pervasive, the virtualization of conflict, the technologization of terror, and the biologization of weaponry no longer stand as fictionalized science, but as materialized terrains where simulation supplants actuality, where bits of code can infiltrate and undermine individual statistics or international banking systems (as they already have), and where genetics can serve as either diagnostic or intrusive.

In 1995 the Central Intelligence Agency, under executive order, began releasing images from its secret, now declassified, databases of cold-war satellite reconissance flights. Admiral William O. Studeman, then acting director of the CIA, took the opportunity to muse about Project Corona's objectives and the future of space-based imaging:

As we debate the role and mission of intelligence in the next century, it is important to understand how the images sent back by these early satellites altered our view of the world during the Cold War and how satellite imagery continues to shape our worldview today.

With particular interest, he cited the use of satellite imagery during the Gulf War and highlighted the example of Hussein's attempt to dump oil into the gulf and the effectiveness of the imagery in containing a potentially catastrophic ecological disaster. It is of no small interest that Studeman's strategic use of "the role and mission of intelligence" is so directly linked with imagery, especially as the metaphor of an omni-present source of "intelligence" comes to dominate the discourses of cultural studies, economics, sociology, art, entertainment, and politics.

Strategic "intelligence," surveillance, and high technology have found some new alliances in the tele-spectacles of these last few years of the millennium. A front page report in the NY Times (January 27, 1997) written by John Markoff speaks about MEMS (micro-electro-mechanical systems). These devices could be seeded into the environment. The article speculates:

Whatever the technical obstacles, the new frontier of MEMS could also bring with it thorny social problems. For example, a 1995 study group in the United States, sponsored by the Advanced Research Projects Agency of the Pentagon, proposed the idea of "surveillance dust." Each dust particle would consist of tiny sensors with a miniature parachute, microphone and infrared detector. Sprinkled over a battlefield, this dust would float for five hours or more to give pinpoint information on enemy locations. Privacy experts, however, worry that such technology could soon be widely deployed for civilian as well as military applications.

But while the technophiles assemble a wholly digital future founded on press releases and supposition, more interesting problems exist than an infosphere (should one say atmosphere) pollenated with panoptic electronic dust. William Bogart calls it an environment in which we are "ever more willing to sacrifice ourselves to simulation in order to push surveillance to its absolute limit." and in which there is "no question of a return to some private realm."[3], while Gary Marx finds an osmosislike transfer of legitimacy

[…]The aura of science, with its suggestion of modernity, power, efficiency, and certainty, is often drawn upon with terms such as "sophisticated technology," "high tech," "the scientific measure of truth," ultraminiaturized, "solid-state electronics," "integrated circuitry," "voice stress computer," "electronic analysis. [4]

But this overwhelmingly impenetratabl e system is neither invisible nor lost behind the veil of artificially rendered representations.

Surely, much current thinking concerning the effects of technology is fixed on the relationship between visibility, intelligibility and spectacle. This is particularly the case in the works of Virilio or Baudrillard in which representation, technology, and politics are intertwined in the surfaces of simulation, but is equally the case in the developing tactics of "strategic perception management" across the spectrum.

But the deployment of less observable strategies of "command and control" paralleled the development of cinema or virtuality. Emerging in the pivotal years after WWII, cybernetics, genetics, information theory, solid state electronics, programming, semiotics, can be decisively related to multinational economies, the internationalization of broadcast media, the so-called "sciences of the artificial", and, more urgently, to the Cold War stalemate of perverse equilibrium. The figures in this sphere–John von Neumann, Norbert Wiener, Vannevar Bush, Claude Shannon, James Watson, Francis Crick, William Shokley […]— are linked in a discourse with information(s) whose ascendancy was to be legitimated, politicized, and popularized in the hazy "hot" and "cold" metaphors of McLuhan but persuasively criticized in the works of Lewis Mumford, Hans Magnus Enzensberger, Armand Mattelart and, later, in Friedrich Kittler, Regis Debray, or Bernard Stiegler.

The relationship between implementation and invisibility undermines the excessive interest in the immediate effects or spectacles of information, and suggests that a rethinking of the history of information is crucial to coping with its alliances with mechanistic or computational spheres increasingly related to neurological, genetic, or connectionist discourses. By situating the origin of computational information in the Cold War, the link between intelligence (as in intelligence gathering) and information processing is distinctly related to the frenzied collection, electronic storage, and statistical analysis of data.

It was in this phase that tabulation was replaced by calculation, numeration was replaced by prediction, a mechanical model replaced by a cybernetic one. Paralleled by newly commercialized tele-media, this transformation of the terms of political and social discourse led, inexorably, toward a reconceptualization of individual agency, reception, and political action limited by the "exchange" system of broadcast. Whether broadcast politics or broadcast media, the bully-pulpit of post-war ideology was dispersed as a kind of cultural fall-out surrounded by hazy metaphors of the global village. Politics and entertainment merged while a reconfigured subject was emerging from marketing and statistical analysis emanating from computation. The strategies of modernity, steeped in "scopic regimes" (as Martin Jay observes) were being slowly transformed by technologies inflected by the new metaphors of cybernetics and tele-vision.

Even the McLuhanization of media now seems an attempt to salvage both the collapsing imperatives of Modernity and to provide a patch linking utopic dispersions of media with the broad corporate and political objectives in which these technologies were developing. In this environment, the reflexive representation systems of modernity were being slowly outdistanced by forms of surveillance in which information served as deeply as observation to regulate behavior. Indeed, the reciprocity between information and representation was becoming firmly entangled in the discourses of advertising, politics, aesthetics and cultural history. "The project of modernity," writes Friedrich Kittler, "had essentially been one of arms and media technology […] all the better that it was shrouded in a pretty phraseology of democracy and the communication of consensus."[5]

But the "solid-state" in which the electronic disciplines of biology, neurocognition, artificial life and/or intelligence, cyber-democracy, non-located power, electronic economics, rendered authenticity, or pervasive surveillance predominate, cannot be sustained by the reinvention of the simple dialectics nor by the analysis of it within traditional discourses of sociology, psychoanalysis, or critical theory. Instead, the seemingly provisional and fast changing sources of authority, masked behind the metaphors of open-systems, technical protocols, mystifications of cyber-democracy, ludicrous and frighteningly comical neo-Jungian notions of "collective intelligence" and by a glaring lack of serious theorization, have developed a kind of nomadic management paradoxically legitimated by its very lack of centrality and by its intransigent allegiance to the principle of technical reason.

If there is a shift represented by these transformations in the late twentieth century, it is not one effected by an attempt to resolve notions of networks systematically closed, but to confront discursively constituted networks: the biology network, the genetic network, the identity network, the culture network, the political network, the economic network, the technology network, the communication network, the image network. Hence, it is no surprise that a metaphor of connectionism has emerged to designate the system of nodes in a circulatory system of telematic epistemology. The "availability" of information leads, on the one hand, to the presumption of empowerment, and on the other is, in the words of Zizek, "paid for by derealization,"[6] in which absolute presence is equivalent to the absence of desire. In this new order of representation, metaphor and performativity are intimately connected. As Bruno Latour remarked in a recent interview, "Images demonstrate transformation, not information."[7] And while the stakes often seemed to leapfrog over the transition from immersion to dispersion, the fact remains that the efficacy of resistance, the dynamic interest in the relativity of information and subjectivity, the deconstruction of authority, have not exhausted their potential–even as they are assimilated into the ecosystem of the electronic.

The introduction of computing into the public sphere as a cross between phantasies of paranoid superiority and delusions of technological infallibility cannot be fully understood without a confrontation with the long and persuasive use of electronic media as forms of interference, acts of overcoming, threats to the complacent subjectivity of consumption. The long history of the contest between autonomy and assimilation exceeds the scope of this essay. Suffice it to remark that the linking of notions of "avant-gardism" with both militarism and with artistic progress, is not so easily rationalized in a monolithic technological culture. As Armand Mattelart reminds us:

Every creative act which seeks to question the apparatus of domination runs the risk of continuing to carry within itself the imprint of the system in which the creator is inscribed.[8]

Decades of committed work and thought in the fields of media theory, art and culture demonstrate clearly that opposition is neither destructive nor ameliorative. Emerging on the

porous borders of philosophy, history, theory and practice, the voices in this sphere are eloquently diverse.

Herbert Marcuse:

Art, as an instrument of opposition, depends on the alienating force of the aesthetic creation: on its power to remain strange, antagonistic, transcendent to normalcy and, at the same time, being the reservoir of man's suppressed needs, faculties and desires, to remain more real than the reality of normalcy.[9]

Siegfried Zielinski:

To put it more pragmatically–I am pleading for a project of diverse praxis with advanced media machinery. I am counting on a creative side-by-side co-existence: not in the sense of grandiose arbitrariness but rather as a division of labour that is very necessary because we–as cinephiles, as videophiles, as computerphiles–do have different wishes and expectations of the obscure object of our desire.[10] […] there are other attractions in experience and experiences that elude or are not even capable of reproduction."[11]

Peter Weibel:

In this zone of electronic feudalism, media art would have the task of liberating itself from its slavish attitude towards industry and of transforming the media into an instrument of the citizens in this age of media, emancipating itself from a mechanical art and evolving to become a free art. In the techno-industrial complex, what is involved is a new dynamics between art cultural and technology, between society and technology, a mapping of these dynamics in the art work itself. In this age of global displacements the role of the mass media is to create a network to strengthen historical forms of rule by restructuring them. In view of the fact that the big companies themselves are becoming the driving force of global displacements, art and, specifically, media art–if it can recall its original function at all–will have the task of analysing this displacement and its causes within the global network so as to create the conditions for a resistance to the new feudalisms and new vertical structures of mediacracy. The amnesia of the media is their daily routine called television. Media art, in contrast, would be memory art. Searching for free electronic citizens instead of enslaved, electronic consumers, we can expect more in this respect from artists on the periphery that from mainstream media artists in the big cities. The ancient goddess of reason and cunning, Metis, Odysseus and Daedalus who owe their lives, their survival and their immortality to the great Greek allegories for the mature citizen, are also adequate figureheads for the media. Vis-a-vis the power of the media and their frenzied exteriority, browsing on the rails of cunning is the only site in a world that no longer knows where its site is."[12]

Regis Debray:

The causal tie between a technology and a culture is neither automatic nor unilateral.[13]

Ken Feingold:

[…] it is still important to understand that art has a role in the culture which is different from those things that seek to accomplish some concrete aim. It is speculative and, if any traces of an avant-garde remain relevant at this point in history, it is in its ability to experiment, to do things for no reason at all, propelled by an interest in what is unknown, not already understood.[14]

Alexei Shulgin:

With the coming of the Net, something new, shyly calling itself net.art is emerging, now trying to define itself and experiencing its difference from other forms of creative activity. The problems of the current period of net.art as I see them are deeply rooted in a social determination of the notions 'art' and 'artist'. Will we be able to overcome our egos and give up obsolete ideas of representation and manipulation? Will we jump headlong into a realm of pure communication? Will we call ourselves 'artists' anymore?[15]

Marleen Stikker:

So what are we going to do with unlimited bandwidth? Is the fetish phantasy of full feed, full speed communication just another screen on which to project the utopia of an universal understanding between people? If everybody is a broadcaster, who will shut up and listen?[16]

Julia Scher:

Please peruse our used hard drives, table number one.
I offer distinguished and ambient space. I am full and waiting for you.
Post edible environmental complex I am raw and ready for you.
Americans are not on alert.
They are are not on now.
It's who you play, not who you are.
Come into my area now.
Please loosen my access control […].[17]

[1] John Arquilla; David Ronfeldt; The Rand Corporation and the National Defense Research Institute: *In Athena's Camp: Preparing for Conflict in the Information Age*, Santa Monica 1997, 1.

[2] Alvin und Heidi Toffler, "The New Intangibles", ibid., p. xvi.

[3] William Bogart, *The Simulation of Surveillance*, Cambridge University Press, New York 1996, 24; 138.

[4] Gary Marx: "Electric Eye in the Sky: Some Reflections on the New Surveillance and Popular Culture," in: David Lynch; Elia Zureik (eds), *Computers, Surveillance, & Privacy* (University of Minnesota Press, Minneapolis, 1996) pp. 218-220.

[5] Friedrich A. Kittler; "A Conversation between Peter Weibel and Friedrich A. Kittler," in: Peter Weibel, *Zur Rechtfertigung der hypothetischen Natur der Kunst und der Nicht-Identität in der Objektwelt / On Justifying the Hypothetical Nature of Art and the Non-Identicallity within the Object World* (Galerie Tanja Grunert, Cologne1992) p.169.

[6] Slavoj Zizek at Ars Electronica 1995.

[7] Bruno Latour "Interview with Geert Lovink." Published on the nettime mailing list (9/3/97).

[8] Armand Mattelart, *Mass Media, Ideologies, and the Revolutionary Movement* (Humanities Press, New Jersey, 1980) p. 15.

[9] Herbert Marcuse, *Technology, War and Fascism* (Routledge, New York, 1998) p. 202.

[1] Siegfried Zielinski: "Media Archaeology" in (CTheory: http://eserver.org/ctheory/)

[11] Siegfried Zielinski, "Thinking the Border and the Boundary", in Timothy Druckrey (ed.), *Electronic Culture: Technology and Visual Representation* (Aperture, New York, 1996) p. 284.

[12] Peter Weibel, "Media and METIS: On the Functional Transformation of Electronic Media Art in the Nineties" (Media and Ethics conference Helsinki, September 1996).

[13] Debray, Regis, *Media Manifestos* (Verso: New York, 1996) p. 15.

[14] Ken Feingold, "The Interactive Art Gambit" ("Do not run! We are your friends!") Technology in the 90s presentation, The Museum of Modern Art, NY. April 7, 1997.

[15] Alexei Shulgin, "Art, Power, and Communication", *Parachute* (#85) 1997. p, 24.

[16] Marleen Stikker, "We Want Bandwidth !" @ Hybrid Workspace Documenta X, Kassel, Germany, From 8 to 17 July 1997.

[17] Julia Scher, text from the installation *American Fibroids*.