# GOVERNMENTALITY OF INFORMATION

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The American military network ARPAnet was conceived as a way to maintain uninterrupted communications in the event of nuclear war. Ancestor of the Internet and foundation of the Global Information Infrastructure, ARPAnet springs from exactly the same source as the "push-button war" that lay behind it: the change of scale provoked by the early 20th century discoveries in physics, within an industrial society capable of organizing the productivity – including the scientific productivity – of thousands of agents. Here, no doubt, is the real birthplace of the information society: a society massively penetrated by the sciences and technologies of information and telecommunications, using them to carry out the design of the planet or at least, that of its components (with design replacing politics). A society whose governmentality entails the knowledge of the real, that is to say, the transformation of reality into information. A society whose governmentality unfolds between its smallest common denominators (atomic, electronic, magnetic, genetic, chemical) and its largest common denominators (climate, planet, solar system), by way of laws, formulas and norms that determine its productivity, means, and possible destinies.

The decline of mechanical and electromechanical industry (still dependent on labor power) and the appearance of digitally commanded machines and interconnected networks of computers marks the dawn of the great transformation in governmental technologies, based on cybernetics, informatics and electronic networks. The army and transportation were at the forefront of this epochal shift. Indeed, the Second World War never really ended until the close of the Cold War; and up to that point, the Soviet Union and the OECD states intensively pursued their military and economic efforts to win the conflict that opposed them. In the 1960s, a great many of the military systems that are still operational today (and some that have since become obsolete) were under development in the United States and the USSR. The UK-USA pact that would lay the foundations for the development of ECHELON dates from 1947, and the first COMINT satellites (COMmunications INTerception) date from 1968. The information-analysis and psychological warfare capacities of the ECHELON system reach back to 1940, finding their earliest form in the Foreign Broadcast Intelligence Service (FBIS), able to collect 500,000 words a day in 15 languages in order to evaluate the effectiveness of American propaganda, to act on enemy propaganda, and to deliver daily reports and analysis to over 500 government officials. The concept of GPS (Global Positioning System) dates from 1965, and the first feasibility studies, from 1972. ARPAnet and other communications systems (for example, the Ground Wave Emergency Network: GWEN) were developed in the 1970s to respond to the risk of a nuclear offensive. Later, the American Department of Defense abandoned the idea of any directly military use of ARPAnet, though it still granted subsidies to computer manufacturers for the inclusion of TCP/IP in their protocols.

In the transportation sector, an information and telecommunications management company like SITA corp gradually set up interconnected networks of computers connecting airports and airlines throughout the world from the 1950s onward, for air traffic control and seat reservation. The planes themselves, in advance of trains and automobiles, gradually filled up with computers, electronics and interconnected networks (today, according to the INRIA, about half the value of a civil airplane lies in its electronics and software, and certain mass-produced automobiles contain more computer technology than the lunar lander used by Neil

Armstrong 30 years ago). In France, the RATP urban transport authority built a star-shaped network connecting a dual-processor computer to a hundred smaller computers spread across the territory in the mid-1970s. In the financial world, the SWIFT international money transfer system (Society for Worldwide Interbank Financial Telecommunication) was operational in 1977, connecting 239 banks in 15 different countries. The initial network architecture was centralized at 3 world switchpoints in the United States and in Europe (Brussels and Amsterdam) connecting the national concentrators that served as gateways to the system.

In the late 1960s the social and productive impact of interconnected computer networks was already being predicted. Systems engineers from industry and space research, from 1964 onwards, responded to the request of the California governor to think about ways to avoid the smog generated by urban commuting. They proposed to bring work to employee's domicile, or in other words, to partially transform private homes into "offices" equipped devices for the elaboration, communication, and management of information (D. Bess, "What the Space Scientists propose for California," Think, 32/4, July-August 1969). The screen, becoming interactive, would abandon its simple function as entertainment or propaganda, it would leave behind its role as a pure instrument of control to become a powerful work and organization tool permitting interaction between isolated employees, clients and managers.
It was on this basis that it would later serve as a tool of sociability, just as the telegraph and telephone, initially conceived as commercial or military instruments, media of exchange and control, were "diverted" from their primary use to become tools of personal communication for sociability. This sociability has only a marginal influence on science and technology, on information management and telecommunications, which remain fundamentally military and commercial. Nonetheless, certain aspects of social inventiveness can be integrated to the techniques of corporate or military management (affinity groups, cooperative or group-based organization, mobility, flexibility), to marketing or propaganda techniques (hoaxes), to productive organizations (for example, Open Source Intelligence – OSINT – forms the basis for much of the geospatial, climatic, and logistical information gathered by the American administration).

Parallel to the establishment of these working tools, sophisticated weapons and manipulation systems growing out of the cooperation between universities and armies opened the door to new climatic, tectonic, psychotronic, biological and chemical warfare technologies, which we now find listed in the Space Preservation Act (2001); but also to new coercive techniques founded not only on propaganda and repression, on economic aid, development and humanitarian assistance, but also on the chemical and electromagnetic manipulation of the human body. The most terrible of the American biological operations is said to be the massive spread of AIDS through vaccination campaigns in various Central African countries (1976) and in New York (1977), in order to selectively reduce the threat of the "P-bomb," or overpopulation (Leonard G. Horowitz, La guerre des virus: Sida et Ebola, 1998). The first American military actions on the weather probably date from the 1970s in Vietnam, followed by the gradual installation of a program for climate control and transformation. Today this program is being developed through the interlinkage of weather information systems (COOP-M and NOAA in the US) and local actions of ionospheric heating through electromagnetic bombardment from arrays of antennas located on several places on the planet (HAARP in Alaska, Arecibo in Porto Rico...). The early research into electrical, then electromagnetic, manipulation of human behavior dates from the 1950s (Mkultra, Pandora) and fits squarely

into the mainline development of information science (with the exception of Norbert Wiener, the early cyberneticians were all neurophysiologists).

Since the origin of information science and technology, the programming/deprogramming/reprogramming of life has been its implicit objective. One can hardly doubt that this objective is on the verge of being attained today, opening the door to a variety of commercial derivatives. The advancement of systems like GPS, the development of biometrics and genetic identifiers suggests that beyond the control of flows and of all multiple identities, there may today exist capacities for the remote control of things and living beings, and for chemical and electromagnetic interaction with them at a distance. The new version of the Internet protocol, IPv6, will increase the number of addresses – 340 billion billion billion billions – allowing every person to be given an address, but also every object, as the latter are increasingly expected to communicate among each other and with human beings. The computerization of complex societies seems well underway toward the implantation of microchips in human flesh, not only allowing gains in systems security through the surveillance of organic components, but also permitting remote control: "prevent voluntary muscular movements, control emotions and actions, produce sleep, transmit suggestions, interfere with both short-term and long-term memory, and both produce and delete an experience set" (Scientific Advisory Committee, U.S. Air Force, 1996).

Having massively invaded all the spheres of society, information science and technology, with its biological and chemical prolongations, now gives rise to a total governmentality. This governmentality does not just contradict the spirit of the Enlightenment by concentrating and augmenting the power of domination exerted by a global aristocracy. It suppresses the very possibility of Enlightenment. The level of bio- and psycho-political management allowed by information science and technology, the level of systemic integration that they make possible, suggest that a political autonomy or constituent power today, of whatever nature, can only become critical by segmenting the infosphere, by developing non-capitalist markets, by setting up revocable hierarchies.

## THE CAPACITY TO MAKE HISTORY

Humanity is not located on the same scale as the basic qualities of matter (physical, biological and chemical), although it is a prolongation of them. What the communist poet Eluard called "the realization of man's vital desires, those of body and imagination" cannot serve as a horizon of action on the scale of these basic qualities, without in the same blow authorizing the development of technical systems that will determine them. In this case, humanity submits its own scale (reflexivity, knowledge of ends, sociability) to the scales of the basic qualities (physical, chemical, biological), which then appear as its truth and its end. It is true that the human species does not know what its reflexivity is or what its ends are, or what its political subjectivity can be. And perhaps it must not know this. But in the absence of any sign of a solidarity of the species or a community of human race (without even yet speaking of interspecies solidarity), in the absence of any self-constitution of the species (which would not necessarily designate finalities or desired destinies), the constituent power of technological systems – those expressions of the transcendence of the scale of primary qualities – and the constituent power of the individuals who govern them, are what determine our possible destinies. In less abstract language: the governmental power exerted over the planet and the species by a caste actively working toward its own immortality is reinforced and multiplied by the integrated technological systems that allow for the analysis of complexity, increasing

the capacity for the accumulation of capital, augmenting the capacities of action on information-reality, and even tending toward the administration of future "human resources" via genetic sorting and non-mammalian reproduction.
The world as normed by globalized technological systems and by the strategies of a shadowy planetary government will on the average be more predictable, more certain and better insured than ever in the past, whatever the cultural and functional diversity of that government may be, and whatever the treachery or accidents that may occur (a good example are the American, Russian, German, Israeli and Pakistani secret services, who all knew that something was being prepared for late 2001, or the institutional speculators who were alert enough to sell their stocks in American air carriers shortly before September 11). Thus world government reduces uncertainty, it reduces the capacity to "make history" opened up by a multiplicity of autonomous or sovereign actors.

If what is fundamentally at stake in humanity is making history, and if this capacity is paradoxically reduced by the development of technological systems, then the segmentation of these systems, the limitation of the productive and normative interdependencies, would appear to be the precondition of politics today. Social democracy is entirely contained within the proposition that workers or employees should not destroy their productive instruments, that it is essentially a matter of changing their use or style of management. Social democracy is finished. By reinforcing dependencies, the normalized and normalizing technological systems have destroyed the range of autonomies. They have reinforced the powers of control, standardization and transformation of populations. At stake today is the (re)creation of sovereign autonomies outside planned futures, outside psycho-politics as it is staged in the media on the four corners of the earth, outside salaried labor depending on the worldwide organization of production, on globalized commercial and financial circuits.
Can nation-states be the site of sovereign autonomies? Today, an autonomous state would be necessarily hostile to the world government (New World Order). It would have to declare war, willingly or not; and the treatment of North Korea is exemplary in this respect, whatever else one may think of that country. Unless it is prepared to accept the heaviest sacrifices, a state can no longer withdraw from planetary dependencies and interdependencies. "The democratic option is often quite fragile [in Africa]. Even where pluralist elections are organized, the citizens are well aware that the real stakes escape them" (World Report on Human Development, PNUD, 2002). And is it any different in other countries?

Would a planetary parliament (necessarily dependent on world infrastructures, norms and technical procedures) be capable of exercising any constraint over world government, or even of achieving self-constitution? Speech and debate can only peripherally organize human or planetary complexity... unless they use technological systems which are currently under firm control.
Autonomy must therefore be situated at other levels. To be autonomous today is to have the capacity to cut off a network. Creating silence, in other words, cutting off noise (antennas, media) is now a precondition for the appearance of political speech. And breaking off circulation (supermarkets, transportation, banks, information) is a precondition of the self-determination of production. Autonomy seeks to reduce the systemic continuity and interdependence among all positions on the planet; in other words, it seeks to segment networks. Refusing that global seed supplies and the molecular components of the real (biological and chemical compounds) be held under the control of a handful of firms. Refusing that a telephone call from Paris to London should transit via Tokyo or New York, or

that the exchange of grain between South Africa and Zimbabwe should pass through Chicago. Breaking the SWIFT circuit that rings the earth with financial flows which insure – in the literal sense of the word – the governmental centrality of a world economy controlled by a handful of investment funds (Fidelity, Barclays, ABN Amro...) and a few government agencies, or in other words, stopping the functioning of the world bank-transfer system, and therefore of international exchanges. But what corporation, what producer dependent on the raw materials, on the human, financial or industrial resources of another country, could possibly wish to do such a thing?

In reality, autonomy gradually constructs an organizational mode of its own. In the sphere of trade as well as of seed supplies (which now tend to be normalized and controlled on the world level by a limited group of firms backed by international regulatory bodies), social and productive autonomy is inventing its own techniques of production and its own non-capitalist markets. Autonomy with respect to systems such as SWIFT consists in the still-embryonic development of non-bank money – by para-national monetary organizations in Argentina (El Grand Trueque), Mexico (Tianguis Tlaloc), Senegal (Doole), Thailand (Bia Kud Chum), Ecuador (SINTRAL), or by local and traditional economies, networks of cooperatives, microcredit and "tontine" banks – while autonomy with respect to world control of seeds and animal reproduction, and therefore of agricultural production, consists in the food sovereignty proclaimed by Via Campesina, the autonomous production and circulation of seed. Though limited today, these autonomous markets and techniques are liable with time, and in response to the increasing pressure of world government, to grow in volume, complexity and legitimacy, exceeding the levels of affinity groups and the informal economy, without entering the order and norms of the capitalist system. The change in scale of autonomous struggles, markets and organizations (groups, movements, communities, affinity networks) undoubtedly entails the capacity to invent procedures (open source, copyleft, time-money) but also to establish revocable hierarchies, so as to escape both the black box of spontaneous egalitarian organizations (which always hide informal, charismatic or insider influences) and the creeping normalization of meritocracy organizations.