

THE INFORMATION BOMB

Paul Virilio

Translated by Chris Turner



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CHAPTER 1

The civilianization or militarization of science?

If truth is what is verifiable, the truth of contemporary science is not so much the extent of progress achieved as the scale of technical catastrophes occasioned.

Science, after having been carried along for almost half a century in the arms race of the East–West deterrence era, has developed solely with a view to the pursuit of *limit-performances*, to the detriment of any effort to discover a coherent truth useful to humanity.

Modern science, having progressively become **techno-science** – the product of the fatal confusion between the *operational instrument* and *exploratory research* – has slipped its philosophical moorings and lost its way, without anyone taking umbrage at this, except for a few ecological and religious leaders.¹

¹ Pope John Paul II was criticizing the militarization of science and its culture of death as early as the late 1980s.

Indeed, if the 'experience of thought' does in fact lie at the origin of the experimental sciences, we cannot but notice today the decline of that *analogic* mental process, in favour of instrumental, *digital* procedures, which are capable, we are told, of boosting knowledge.

Operational reality of the technical instrument, *resolutive* truth of scientific thought – two fundamentally distinct aspects of knowledge, which are fused here without anyone apparently becoming alerted to the situation.

Science, which is not so attached to 'truth' as once it was, but more to immediate 'effectiveness', is now drifting towards its decline, its civic fall from grace . . . As a panic phenomenon – a fact concealed by the success of its devices and tools – contemporary science is losing itself in the very excessiveness of its alleged progress. Much as a strategic offensive can wear itself out by the scale of its tactical conquests, so techno-science is gradually wrecking the scholarly resources of all knowledge.

Like an Olympic sport in which the performance drugs, the anabolic steroids and such like, destroy the meaning of the athletes' effort by an abuse of the pharmacopoeia, *extreme science* is moving away from patient research into reality to become part of a phenomenon of generalized virtualization.

After having been drawn, against its own better nature, into the planetary death race of the 'balance of terror', 'post-modern' science is now engaging in a new type of competition that is equally insane: a race to achieve *limit-performances in the fields of robotics or genetic engineering*, which in its turn draws the various scientific disciplines on to the path of a 'post-scientific extremism' that exiles them from all reason.

Science, which was once a rigorous field thriving on intellectual adventure, is today bogged down in a technological adventurism that denatures it. 'Science of the excess', of extremes – a limit-science or the limit of science?

As everyone knows, that which is excessive is insignificant. 'Science without conscience is mere ruination of the soul' (Rabelais), and a techno-science without a consciousness of its impending end is, however unwittingly, merely a sport.

'Extreme sports' – those in which one deliberately risks one's life on the pretext of achieving a record performance. 'Extreme science' – the science which runs the incalculable risk of the disappearance of all science. As the tragic phenomenon of a knowledge which has suddenly become **cybernetic**, this techno-science becomes, then, as mass techno-culture, the agent not, as in the past, of the acceleration of history, but of the dizzying whirl of *the acceleration of reality* – and that to the detriment of all verisimilitude.

Only a few centuries after having been, with Copernicus and Galileo, the *science of the appearance* of a relative truth, techno-science is once again becoming a *science of the disappearance* of that same truth with the coming of a knowledge which is not so much encyclopaedic as cybernetic, a knowledge which denies all objective reality.

Thus, after having largely contributed to speeding up the various means for the representation of the world, with optics, electro-optics and even the recent establishment of the space of virtual reality, contemporary sciences are the space of virtual reality, contemporary sciences are engaging, a *contrario*, in the eclipsing of the real, in the aesthetics of scientific disappearance.

A *science of verisimilitude, of the plausible*, still attached to

the discovery of a relative truth? Or a *science of implausibility*, committed today to the research and development of a heightened virtual reality? This is the alternative we are offered.

In fact, the only scientific horizon is authenticity, the experimental rigour of researchers. Unfortunately, we know what media abuses surround certain 'discoveries'. We know the promotional character of the premature announcement of the results of a particular experiment, when what is really going on is little more than an exercise in the conditioning of public opinion by an extremist science. That science is now concerned less with truth than with the effect created by the announcement of a new discovery — though not, as used to be the case, a genuine discovery serving the common good.

In illustration of these disenchanted remarks, we may usefully criticize the carefully sustained confusion between the *spotting hero* and the *scientist*, between the adventurer who pushes himself violently to his *physical* limits and the white-coated adventurer who pushes himself to the *ethical* limits, the adventurer who experiences the elation of risk-taking not just his own death, but that of the human race.

Let us examine, for example, the Bob Dent-Philip Nitschke affair. On Thursday 26 September 1996, Bob Dent, a cancer patient in his sixties, was the first person to make use of an Australian law which had been in force since 1 July of the same year: the so-called Terminal Act.²

² The Northern Territory's Rights of the Terminally Ill Act remained in force until 27 March 1997, when it was overturned by the Australian federal government. (Trans.)

Linked to a computer managing his IV system, Dent said 'yes' a first time to the machine developed by his doctor, Philip Nitschke.

After a period of nine days, as laid down by law, he clicked on 'yes' a second time. The choice before him at that point was: 'If you click on "yes", a lethal injection will be administered within thirty seconds and you will die.'

From these facts taken as a whole — *nine months* to be born without any choice in the matter, *nine days* to die voluntarily, *thirty seconds* to change your mind — there arises the question of the limits of science, of a science which is here akin to therapeutic extinction. Is this the science of programmed decrease or *computer-aided suicide*?

There is much to be said about this 'decisional death', in which the doctor's participation is confined to developing a *buck-passing machine*, the cause of active euthanasia advancing behind the mask of a cybernetic procedure for inflicting sudden death.

A clinical example of the new virtualization of action, in which *remote electronic action* wipes away the patient's guilt, together with the scientist's responsibility.

Philip Nitschke, innocent of the crime of active euthanasia, and no more responsible than a dealer in firearms or knives, has managed to take advantage not just of the ambiguity of the aptly named 'Terminal Act', but of the nihilism of the coming cybernetic era.

Like Kasparov, the world chess champion, playing a game against a computer specially designed to defeat him, Philip Nitschke has just pioneered the creation of a new 'fatal' couple.

Let us not forget, however, that what took place

between the doctor and his 'patient' – impatient, as it happens, to put an end to his life – had already been in play in the age of the balance of programmed terror, with the system of 'Mutually Assured Destruction' (MAD) between East and West, and the development – interrupted by the implosion of the Soviet Union – of a genuine 'doomsday machine' capable of deciding the passive euthanasia of humanity by automatically triggering the nuclear apocalypse.

CHAPTER 2

Totally or all-inclusiveness? We can scarcely avoid the question today of what is meant by the endlessly repeated word **globalization**. Is this a term intended to take over from the word **internationalism**, associated too closely with communism, or, as is often claimed, is it a reference to single-market capitalism?

Either answer is wide of the mark. After the 'end of history', prematurely announced a few years ago by Francis Fukuyama,¹ what is being revealed here are the beginnings of the 'end of the space' of a small planet held in suspension in the electronic ether of our modern means of telecommunication.

Let us not forget that 'excellence is a completion' (Aristotle), and perfect accomplishment a definitive conclusion.

¹ Francis Fukuyama, *The End of History and the Last Man*, Hamish Hamilton, London, 1992.

The time of the finite world is coming to an end and, unless we are astronomers or geophysicists, we shall understand nothing of the sudden 'globalization of history' if we do not go back to physics and the reality of the moment.

To claim, as is now the case, that **globalism** illustrates the victory of free enterprise over totalitarian collectivism is to understand nothing of the current loss of time intervals, the endless feedback, the telescoping of industrial or post-industrial activities.

How are we to conceive the change wrought by computerization if we remain tied to an ideological approach, when the urgent need is in fact for a new geostrategic approach to discover the scale of the phenomenon that is upon us? And we need to do this *to come back to the Earth* — not in the sense of the old earth which sustains and nourishes us, but of the unique celestial body we occupy. To return to the world, *to its dimensions* and to the coming loss of those dimensions in the acceleration not now of history (which, with the loss of local time, has just lost its concrete foundations), but of reality itself, with the new-found importance of this world time, a time whose instantaneity definitively cancels the reality of distances — the reality of those geographical intervals which only yesterday still organized the politics of nations and their alliances, the importance of which had been shown by the Cold War in the age of (East/West) bloc politics.

'Physics' and 'metaphysics' are two terms which have been current in philosophy and understood in that discipline since Aristotle, but what of *geophysics* and *meta-geophysics*? There is still doubt over the meaning of the latter term, while the factual reality clearly shows that the

continents have lost their geographical foundations and been supplanted by the *tele-continents* of a global communication system which has become quasi-instantaneous.

After the extreme political importance assumed by the geophysics of the globe over the history of societies separated not so much by their national frontiers as by communications distances and timelags, we have in recent times seen the transpolitical importance of this kind of *meta-geophysics* which the cybernetic **interactivity** of the contemporary world represents for us at the end of the twentieth century.

Since all presence is presence only at a distance, the tele-presence of the era of the globalization of exchanges could only be established across the widest possible gap. This is a gap which now stretches to the other side of the world, from one edge to the other of present reality. But this is a meta-geophysical reality which strictly regulates the tele-continents of a *virtual reality* that monopolizes the greater part of the economic activity of the nations and, conversely, destroys cultures which are precisely situated in the space of the physics of the globe.

We are not seeing an 'end of history', but we are seeing an end of geography. Whereas, until the transport revolution of the nineteenth century, the old time intervals produced an auspicious distancing between the various societies, in the age of the current transmission revolution, the ceaseless feedback of human activities is generating the invisible threat of an accident befalling this generalized interactivity — an accident of which the stock market crash might be a symptom.

This point can be illustrated by a particularly significant anecdote: in the last few years, or, more precisely, since the

early 1990s, the Pentagon has taken the view that *geostратe-gy is turning the globe inside out like a glove*.

For American military leaders, the **global** is the *interior* of a finite world whose very finitude poses many logistical problems. And the **local** is the *exterior*, the periphery, if not indeed the 'outer suburbs' of the world.

For the US general staff, then, the pips are no longer inside the apples, nor the segments in the middle of the orange: *the skin has been turned inside out*. The exterior is not simply the skin, the surface of the Earth, but all that is *in situ*, all that is precisely localized, wherever it may be.

There lies the great globalitarian transformation, the transformation which extravers localness – all localness – and which does not now deport persons, or entire populations, as in the past, but deports their living space, the place where they subsist economically. A global de-localization, which affects the very nature not merely of 'national', but of 'social' identity, throwing into question not so much the nation-state, but the city, the geopolitics of nations.

'For the first time,' declared President Clinton, 'there is no longer any difference between domestic and foreign policy.' No longer any distinction between the outside and the inside – admittedly with the exception of the topological reversal effected previously by the Pentagon and the State Department.

In fact, this historic phrase spoken by the American president ushers in the **meta-political** dimension of a power which has become global and permits us to believe that domestic policy will now be handled as external policy was in the past.

The real city, which is situated in a precise place and

which gave its name to the politics of nations, is giving way to the *virtual city*, that de-territorialized **meta-city** which hence to become the site of that *metropolitica*, the totalitarian or rather globalitarian character of which will be plain for all to see.

We had no doubt forgotten that alongside wealth and its accumulation, there is speed and its concentration, without which the centralization of the powers that have succeeded each other throughout history would quite simply not have taken place: feudal and monarchic power, or the power of the national state, for which the acceleration of transport and transmissions made the government of dispersed populations easier.

Today, with the new policy of trade globalization, the city is foregrounded once more. As one of humanity's major historic forms, the metropolis provides a focus for the vitality of the nations of the globe.

But this **local city** is now only a **district**, one borough among others of the invisible **world meta-city** whose 'centre is everywhere and whose circumference nowhere' (Pascal).

The virtual hypercentre, of which real cities are only ever the periphery. And, with the desertification of rural space, this phenomenon is further accentuating the decline of medium-sized towns, incapable of holding out for long against the attraction of the metropolises, which have all the telecommunications infrastructure, together with the high-speed air and rail links. The *metropolitica* phenomenon of a catastrophic human hyper-concentration that is gradually coming to suppress the urgent need for a genuine *geopolitics* of populations which were previously spread harmoniously over the whole of their territories.

To illustrate the recent consequences of domestic telecommunications for municipal politics, one last anecdote: since the sudden proliferation of mobile phones, the Los Angeles police have found themselves presented with a difficulty of a new kind. Whereas, in the past, drug dealing in its various forms was precisely situated in a number of districts that were easily monitored by the narcotics squads, those squads are now entirely defeated by the random and essentially de-localized meetings between dealers and users who all have mobile phones and can meet wherever they decide – literally, anywhere.

A single technical phenomenon which both facilitates metropolitan *concentration* and the *dispersal* of major risks – this needed to be borne in mind if, in the future (at all events, very soon), a cybernetic control appropriate to domestic networks was to be developed . . . hence the relentless advance of the Internet, the recently *civilianized* military network.

The more that time intervals are abolished, the more the image of space dilates: 'You would think that an explosion had occurred all over the planet. The least nook and cranny are dragged out of the shade by a stark light,' wrote Ernst Jünger of that illumination which lights up the reality of the world.

The coming of the 'live', of 'direct transmission', brought about by turning the limit-speed of waves to effect, transforms the old 'tele-vision' into a **planetary grand-scale optics**.

With CNN and its various offshoots, domestic television has given way to **tele-surveillance**.

This sudden **focusing** – a security-orientated phenomenon of the media monitoring of the life of nations – heralds

the dawn of a particular form of day, which totally escapes the diurnal–nocturnal alternation that previously structured history.

With this **false day**, produced by the illumination of telecommunications, an artificial sun rises, an emergency lighting system which ushers in a new time: **world time**, in which the simultaneity of actions should soon gain precedence over their successive character.

With **visual** (audiovisual) **continuity** progressively taking over from the **territorial contiguity** of nations, which has now declined in importance, the political frontiers were themselves to shift from the real space of geopolitics to the 'real time' of the chronopolitics of the transmission of images and sounds. Two complementary aspects of **globalization** have, then, to be taken into account today: on the one hand, the extreme reduction of distances which ensues from the **temporal compression** of transport and transmissions; on the other, the current general spread of **tele-surveillance**. A new vision of a world that is constantly 'tele-present' twenty-four hours a day, seven days a week, thanks to the artifice of this 'trans-horizon optics' which puts what was previously out of sight on display.

'The destiny of every image is enlargement,' declared Gaston Bachelard. It is science, techno-science, which has taken responsibility for this fate of images. In the past, it did so with the telescope and the microscope. In the future, it will do so with a domestic tele-surveillance that will exceed the strictly military dimensions of this phenomenon.

The exhaustion of the political importance of extension, which is a product of the unremarked pollution by

acceleration of the **life-size nature** of the terrestrial globe, demands the invention of a **substitute grand-scale optics**.

This is an *active (wave) optics*, replacing in a thoroughgoing way the *passive (geometric) optics* of the era of Galileo's spy-glass. And doing so as though the loss of the horizon-line of geographical perspective imperatively necessitated the establishment of a **substitute horizon**: the 'artificial horizon' of a screen or a monitor, capable of permanently displaying the new preponderance of the media perspective over the immediate perspective of space.

With the **relief** of the 'tele-present' event then taking precedence over the three dimensions of the volume of objects or places here present . . .

This helps us better to understand the sudden multiplication of those 'great lights'² that are meteorological or military observation satellites. The repeated sending into orbit of communications satellites, the spread of metropolitan video-surveillance or, alternatively, the recent development of live-cams on the Internet.

All this contributing, as we have seen, to the inversion of the usual conceptions of *inside* and *outside*.

Finally, this generalized **visualization** is the defining aspect of what is generally known today as **virtualization**.

The much-vaunted 'virtual reality' is not so much a navigation through the **cyberspace** of the networks. It is, first and foremost, the **amplification of the optical density** of the appearances of the real world.

2 'Grands luminaires': a reference to Genesis 1:16: 'And God made two great lights.'

An amplification which attempts to compensate for the contraction of distances on the Earth, a contraction brought about by the temporal compression of instantaneous telecommunications. In a world in which obligatory tele-presence is submerging the immediate presence of individuals (in work, trade, etc.), television can no longer be what it has been for half a century: a place of entertainment or of the promotion of culture; it must, first and foremost, **give birth** to the world time of exchanges, to this virtual vision which is supplanting the vision of the real world around us.

Grand-Scale Transhorizon Optics is, therefore, the site of all (strategic, economic, political . . .) virtualization. Without it, the development of **globalitarianism**, which is preparing to revive the **totalitarianisms** of the past, would be ineffective.

To provide the coming globalization with relief, with optical density, it is necessary not merely to connect up to the cybernetic networks, but, most important, to split the reality of the world in two.

As with *stereoscopy* and *stereophony*, which distinguish left from right, bass from treble, to make it easier to perceive audiovisual relief, it is essential today to effect a split in primary reality by developing a *stereo-reality*, made up on the one hand of the *actual reality* of immediate appearances and, on the other, of the *virtual reality* of media trans-appearances.

Not until this new 'reality effect' becomes generally accepted as commonplace will it be possible really to speak of **globalization**.

To manage at last to 'bring to light' an over-exposed world, a world without dead angles, without 'areas of

shadow' (like the micro-video which replaces both car reversing lights and rear-view mirrors) – this is the objective of the technologies of **synthetic vision**.

Since a *picture is worth a thousand words*, the aim of multimedia is to turn our old television into a kind of **domestic telescope** for seeing, for foreseeing (in a manner not unlike present weather-forecasting) the world that lies just around the corner.

The aim is to make the computer screen the ultimate window, but a window which would not so much allow you to receive data as to view the horizon of globalization, the space of its accelerated virtualization . . .

Let us now take an example whose significance is widely unrecognized: that of 'live-cams', those video imaging devices which have been set up all over the place and which are only accessible through the Internet.

Though apparently aimless and insignificant, the phenomenon is nonetheless spreading to all parts of an increasing number of countries: from San Francisco Bay to Jerusalem's Wailing Wall, by way of the offices and apartments of a few exhibitionists, the camera enables you to discover in **real time** what is going on at the other end of the planet at that very moment.

Here the computer is no longer simply a device for consulting information sources, but an automatic *vision machine*, operating within the space of an entirely virtualized geographical reality.

Some Internet enthusiasts are even happy to *live their lives 'on screen'*. Interned in the closed circuits of the Web, they offer up their private lives for everyone to watch.

The collectivist introspection of these people, who exemplify a **universal voyeurism**, is set to expand at the

speed of the single world advertising market, which is not far off now.

Advertising, which in the nineteenth century was simply the *publicizing* of a product, before becoming in the twentieth an *industry* for stimulating desire, is set in the twenty-first century to become pure *communication*. To this end it will require the unfolding of an advertising space which stretches to the horizon of visibility of the planet.

Global advertising, far from being satisfied with the classic poster or with breaks between TV or radio programmes, now requires the imposition of its 'environment' on a mass of TV viewers who have in the interim become tele-actors and tele-consumers.

To come back again to the Internet, a number of towns forgotten by tourists vaunt the merits of their regions there. Alpine hotels show off their fine vistas on the screen, while proponents of **land art** are preparing to equip their works with multiple Web cameras. You can also travel vicariously: you can tour America, visit Hong Kong, and even view an Antarctic station in its polar darkness . . .

In spite of its poor optical quality, 'live transmission' has become a promotional tool directing anyone and everyone's gaze to some privileged vantage points.

Happening is no longer a coming to pass; it is merely a passing away. Electronic optics is becoming the 'search engine' of a now globalized fore-sight.

If, in the past, with the telescope, it was simply a matter of observing something unexpected looming up over the horizon, it is now a question of seeing what is happening at the other end of the world, on the hidden side of the planet. Thus, without the aid of the 'artificial horizon' of

multi-media, there is no possible way of negotiating the electronic ether of globalization.

The Earth, **that phantom limb**, no longer extends *as far as the eye can see*; it presents all aspects of itself for inspection in the strange little window. The sudden multiplication of 'points of view' merely heralds the latest globalization: the globalization of the gaze, of the single eye of the **cyclops** who governs the cave, that 'black box' which increasingly poorly conceals the great culminating moment of history, a history fallen victim to the syndrome of total accomplishment.

CHAPTER 3

On 20 January 1997, Bill Clinton reasserted in his inaugural address that in the last hundred years the 'promise of America exploded onto the world stage to make this the American Century'. He further stated that 'we will redeem the promise of America in the twenty-first century', with the USA standing at the head of a whole world of democracies.¹ Yet, in the same address, the president also spoke of a run-down American model, a fractured, broken-down democracy, heading, if they were not careful, for a major political catastrophe.

What is it to be, then? An Americanization of the world or the disorders of a pseudo-third-worldism extending to assume planetary proportions? And what is an American century anyway? And what, we may even ask, is America?

¹ White House, Office of the Press Secretary, press release 20 January 1997, 12.05 pm EST.