

Toward a Universal Medium: The Abstract Machine *Par Excellence*

An Excerpt from the
["Ninety-Five Theses on the Power and Efficacy of the New Medium"](#)

Christopher M. Drohan

1. Insofar as computers are increasingly able to carry out a variety of different functions, we become aware that the computer's mechanical function is not definite, rather it represents the culmination of a variety of machines and techniques in increasingly complex arrangements. Towards this end, the computer acts as the machine that arranges machines, the abstract machine *par excellence*, or the universal translator of machines that converts the function of one into the function of others.

2. Computers do not work (which should be the anthem of the modern technophile). Rather, the computer is a question of how we translate the function of one machine into another, or the same, 'How do we create a truly universal language, one that can express any desire and any function in terms of every other?' This question was born out of the Enlightenment's desire for a universal science, the Industrial Age's desire to be able to instantaneously produce anything, capitalism's desire to give everything a dollar value, and consumerism's demand for an infinite market. In turn, these philosophies and desires gave

birth to the massive social, intellectual, and industrial machines needed to fulfill them: the scientific machine, and its desire to observe and significantly represent everything; the industrial machine, and the desire to be able to duplicate or simulate anything concrete; the capitalistic machine, and its desire to signify everything with a universal exchange value; and the post-industrial desire to render the distance and time between desire and satiation obsolete. Thus, between wanting to understand how everything works, how to produce everything, and how to create a universal system of value, we are grappling with the question of how to instantaneously translate our desires into physical realities, which would in turn be the creation of a machine that understands us, a machine that instantly translates the imaginary into the concrete.

Insofar as every philosophy is born of a question, we shall denote the philosophy of this question 'the computer', the goal of which is to be able to translate all machines so that we can realize an instantaneous economy of desires and the work needed to fulfill them.

3. Computers utilize a variety of different programming languages (e.g. C, Java, ML, Ada, etc.), though ultimately every one of these can be reduced to system of digital encoding which is inscribed electromagnetically,¹ be it on disk, hard wire, or wireless broadcast. Insofar as programming languages can be as diverse as so-called 'natural' languages, they only serve to complicate the relations between machines. Ultimately then, the translative power of the computer comes from its master language, the digital code by means of which the majority of recent technologies communicate, both to their composite parts, and to other machines.

Now there are a variety of different machines that use this code: phones, desktops,

laptops, cars, appliances, etc. Furthermore, by means of their common digital code an increasing number of these machines can be fused together into single technologies (e.g. the cell phone, data server, camera, video game console, soft disk, television, radio, calculator, etc. are fused into one 'iPod'.) Ultimately then, the master language of the computer tends toward the amalgamation of different digital technologies into a single universal technological apparatus. For example, ever since their inception, 'personal computers' have gradually been assuming more and more functions, rendering certain technologies obsolete (e.g. televisions, radios, personal music players, are obvious examples, though ever since personal computers have become mobile hand-held devices, we're already seeing the personal computer replace telephones, video recorders, electric locking devices, agendas, etc.) Accordingly, we see the computer more as a function of digital code, rather than as a particular gadget, appliance, or device.

In like manner, digital code expresses a cornucopia of different concrete effects. One machine translates it into a sound, another an image, another an action, and yet another a sensation. And then there are machines that do all at once: the cinema, the amusement park, "virtual reality", etc. Thus, just as the digital cannot be reduced to a particular 'computer language' or a particular machine it animates, neither can it be reduced to a particular effect, affect, or series of both.

4. In the Sixties, McLuhan declared that "electric light is pure information. It is a medium without a message, as it were".ⁱⁱ The digital echoes this sentiment, in computer and television screens, and the fiber optic nervous system that feeds them. However the Medium of all

these new media is not just light, but every form of electric potential energy. From wi-fi to alternating current, laser beams to radio waves, information is the *speed* of light, not just visible light.

Thus, in the last century we realized information in all its forms (whether linguistic, sensitive, mechanical, etc.) as pure speed – namely the speed of light. In this century, we are beginning to realize the translative power of this speed, its capacity to become any action or thought whatsoever. The claim that “*the medium is the message*” tells us nothing more than that the forms of media are as infinite as their medium will allow.ⁱⁱⁱ This being the case, the digital is a medium without limit, for it translates all media into one another.

Insofar as the digital is increasingly able to translate all machines, effects and affects into one another, its limit tends toward the point where it becomes a universal medium for expressing all mechanical effects and sensitive affects. McLuhan’s famous adage, “the medium is the message” could be broadly interpreted in this way.^{iv} If, as McLuhan tells us, “the “content” of any medium is always another medium”,^v the content of all media reaches a pinnacle in a single and infinite medium, namely ‘digital code’, which expresses everything. Contra McLuhan then, we should instead say ‘*the medium becomes the media*’, or vice-versa, ‘*the media are the Medium*’, where the Medium is the speed of light (i.e. electro-magnetic energy) and the digital code traversing it, while the media are all thoughts and actions produced by it (whether they be sensitive or mechanical).

5. Just as much as the science of the last century sought a universal theory to describe all the physical manifestations of energy (the so called, Grand Unified Theory, or ‘M’ theory), it

now seeks the much more important universal translator, the machine that will convert one form of energy into any other, any action or thought (i.e. a 'Grand Unified Machine', that will predictably translate any type of energy into any sensation, service, or product desired). We cannot underestimate the philosophical revolution implied by this scientific one. Instead of trying to signify everything in a finite universal theory, we instead wish to have the power to translate everything into everything else. The former is a completely dialectical exercise, an attempt to reduce everything into a universal significant order. While the latter is a completely infinite exercise, an attempt to realize the infinite order that precedes the significant, a monistic medium within all forms: matter as pure speed.

From this perspective, concrete dialectics, like that of signifier/signified,^{vi} communicator/ communicatee, content/expression,^{vii} etc., are superseded by the single and universal Medium in which both terms are distinguished. Modern 'multi-media' is not a conglomeration of media forms, but needs to be understood as the tendency of *all* media (i.e. all actions and thoughts) to be simultaneously united in a single digital form. The only real multimedia is the digital medium itself, with all other materials subsequent to it. Nonetheless, these materials do compound, becoming machines that repeatedly produce certain effects on other sets of materials, other machines. What used to be called 'media forms' are actually material compounds and mechanical arrangements. For example, the electric motor, light bulb, lens, and photograph combine to make 'film', whose concept is as at least as old as Plato's allegory of the cave, but whose technology had to wait another two millennia. Add a magnetic tape to this film, you get the 'talkies'; add the cartoon strip, you get 'cartoons'; add the radio transmitter, and you get 'television'; etc. Meanwhile these micro technologies

compound into macro ones. For example, the film combines with the theater to give us the 'movie theatre'; the movie theatre combines with the restaurant to give us the 'Cineplex'; the Cineplex anchors other businesses that become a 'mall'; the mall facilitates housing developments around it, which become a 'suburb', etc. Obviously this example is oversimplified, nevertheless the point is that any micro media is inseparable from a macro one, such that the identification of any media form is a very naive way of looking at the situation. It is not that there is a genus of 'film' divided into 'silent', 'talkie', '8mm', 'VHS', 'DVD', etc., but instead that there are a million different types of film, and a million cinematic media, each form of which impacts our senses and actions differently. The medium is the message means just this: no film, no image, but a film-image produced on the surface of materiality, complete with an assemblage of phenomenological and physical effects, minor and major.

6. If, despite all of science-fiction's hypotheses, we understand 'virtual reality' simply as Matter's infinite and virtual power to produce anything, and if this primary Material is akin to the *speed* of light, then this universal machine and translator already exists. It is the global economy, which despite its disparate parts is homogenized by the phenomena of digital capital. This is capitalism: the exchange of desires and materials through a universal 'capital' that acts as a master translator of goods and services.^{viii} Capital literally is now the speed of light, insofar as the majority of money is electronic. Thus the dream of capitalism becomes the dream of virtual reality, of all exchanges done at the speed of light.

It is only a matter of time before this whole system gets streamlined to the point where

the ability to shop from a palm-pilot or cell-phone becomes a cybernetic implant, so that the bazaar can be placed physically within you, and the mind is finally a superstore. Already one hears through an 'iPod', sees in 'high-def', tastes artificial flavours, smells perfumed aromas, and can 'reach out and touch someone' through their phone-line. All that remains is to find the technology that puts all of these effects and affects together, and plugs one end into your spinal cord, the other into your debit account.

Previously the law of the market was at its worst merely inscribed *on* the flesh (e.g. "body advertising"),^x or was used in order to make flesh a commodity (e.g. slave-labour, prostitution, or the sale of organs). In its extreme form this became something like Kafka's punitive machine, where skin literally got turned into the body of the law; or the holocaust factory that ran on the raw-material of corpses. However, we are now witnessing the inscription of the economy *in* our minds and bodies: the advertised image is etched in our dreams, shaping our desires; industrial and pharmaceutical chemicals leach into our water supply, ingested *en masse*; while the film or the video game structures our world-view ("That accident the other day was just like something out of a movie!").

Industrialization has furnished us with machines that not only produce goods and deliver services, but which change the very nature of sensation and perception. For example, the film industry is devoted to controlling what we see; cybernetic industries strive to control how our bodies move and and what they feel; culinary industries aim to teach us how to taste; chemical engineering firms and perfumers attempt to master the olfactory, filling it with a new language of perfumed syllables; the music and sound industries sell a buffet of custom-built noise; etc.

In all these ways, we have become inseparable from our very own global machine, inside and out. As we plug-in to the new medium, we plug-in ourselves, fusing Whitman's "body electric" with the industrial grid. This is the new "body without organs", where desire is the only product, and there are no clear demarcations where that body begins, nor where it leaves off.^x In a techno-economy that works as fast as our demands. We wait for the inevitable moment when all its parts intersect in our bodies, and everyone becomes part of the same machine, communicating at the speed of light, which is to say, the speed of our desires.

7. We must now prepare ourselves for this next 'phase' of media, which is not, as Baudrillard argues, 'hyperreality' (i.e. the industrialization and promulgation of this medium)^{xi} and the conquest of simulacra (e.g. the digital's ability to simulate anything), but 'virtual-reality', the ability for imagination to harness this simulacral/simulatory power so as to be able to construct existential reality itself.

There is no longer anything "imaginary" about Jarry's pataphysics: "that which is superinduced upon metaphysics".^{xii} Economic vectors superimpose themselves over electrical ones, which in turn determine phenomenological effects. Virtual Reality is therefore the potential for personal imagination to be digitally/mechanically translated into concrete effects and affects instantaneously. Allegorically, this would amount to the creation of technologies like the 'matrix',^{xiii} or Star Trek's 'holodeck'^{xiv} – reality simulators with enough detail and precision that the user is unable to tell that they are in an artificial environment.

Technologically, we are still a long way off from creating machines that can simulate

sensations to this degree. '3-D' film looks more like a 3-D decoupage, with two dimensional images layered over each other; the sex toy industry, which boasts the most 'lifelike' artificial body parts, has yet to produce anything that feels even remotely like warm skin; while sounds produced by even the best 'surround-sound' system still sound like they're coming from speakers. However, with regards to the other senses, people are so inundated with artificial smells and tastes that they have become a regular part of our existential reality. In artificial smells and tastes, therefore, we have the first model of what the first 'virtual reality' generators will accomplish. Contrary to the Matrix model of a virtual reality produced by the cybernetic manipulation of our brains and nervous systems, we are approaching a model that is more like Star Trek's 'holodeck', where an artificial environment is quickly manufactured around our bodies.

The key is to increasingly make our lived environment more artificial. Thus, it's not that TV needs to imitate a landscape better, rather that our landscape needs to imitate television better. Towards this end, many urban neighborhoods are transformed into pockets of virtual reality, as the sides of buildings are replaced by gigantic television screens, replete with smells and tastes of fast food restaurants peddling processed foods, costumed actors dressed like cartoon characters, and music pumping out of stereo speakers to drown the sound of traffic. Here in Toronto this experience is epitomized by Dundas Square (itself modeled after Times Square, New York)^{xv} – a spectacularly artificial street. Situated next to the largest mall in Toronto,^{xvi} desires are crafted by the advertising scenery, then acted out in the mall's various commercial transactions, making this a place where sensation, desire, and satiation are all instantaneously gratified. In effect, we have a primitive model of virtual

reality, which currently takes the unfortunate form of a commercial "theatre of cruelty",^{xvii} an inescapable spectacle of ads, products, and purchases that will only become more all the more engaging and intense as technologies improve (e.g. 'intuitive' and holographic ads, robotic entertainment, 'pharmaceutically enhanced' shopping experiences, etc.).

8. Historically, the transfer of both information and goods was a matter of physical distance. Now however, we have created technologies that allow us to transfer both of them simultaneously and instantaneously, making shipping a matter of time, not physical space. For instance, a doctor can perform surgery on the other side of the globe via the internet and a mechanical arm. This shows on the one hand that cybernetics is less a matter of fusing man and machine, and more a matter of instantaneously extending a man's intelligence and physical force throughout space. If the new media first extend sensation (McLuhan), the next media will therefore extend artistic creation itself.^{xviii}

This began with mechanical clocks and assembly lines, which allowed us to master the time of creation itself, speeding it up or slowing it down with the flick of a switch. Then, as we began networking these machines together with computers and compressing their master functions with nanotechnology, the time and space of our industries started to shrink. For example, what used to be telephone lines, warehouses of data cards, wires, transistors and tubes, a thousand musical orchestras, a camera and photofinishing lab, a stage and film studio, etc. have been compressed into the mobile device in the palm of my hand. The more computerized our businesses and governments become, the more these massive industries are folding into microscopic bundles of digital code, only to travel half-way round the globe at

the speed of light where they can again be unpacked and used. The state and corporation of tomorrow will eventually shrink to the point where it can be worn like clothing, gleaning chemicals from its nanoscopic pores every time it brushes up against something, turning these into the food we ingest, the shows we will watch, the sensations we desire, and the energy we need to conduct them all. In effect, we will all be able to carry around a completely self-sufficient and miniature state system wherever we go, one that could even be programmed to police itself.^{xix}

As the stock of all significant knowledge and all mechanical functions are converted into the digital, our telecommunication networks circulate ideas and actions around the globe at the speed of light, such that given the right technology and the right network we can instantaneously have access to a digital encyclopedia that not only explains our world, but can modify it as well. At present though, there are still too many factors that are limiting our access to this universal database, all of which are complicating the creation of a truly universal machine: the energy crisis, the lack of internet access in remote areas, the price of computerized technologies, global conflicts, poor search engines, internet throttling, censorship, closed national networks, etc. All things considered, a universal machine will only become feasible when electricity is free (i.e. it runs at no cost), its circuitry becomes minuscule (i.e. it takes up next to no space and has a maximum portability), its mechanical parts are all harmonized (i.e. all machines can be translated through it), and its mechanical parts are completely sustainable (i.e. they are self-repairing, using free and renewable resources).

9. The difference between an analogue clock and a digital one is an analogy for the ontological change in temporarily that is taking place through the computer. One must watch analogue time unfold, whether it be the pace of a shadow across a sundial, or the sweeping hands of a clock. Contrariwise, digital time flashes in instantaneous increments. The numbers on a digital watch are not fluid, but flash one after another on the screen. Likewise a the measure of days and years is digital, not analogue, in that days, months, and years change instantaneously upon on the arrival of midnight.^{xx} Analogue time unfolds, digital time arrives instantly. In a regime of the former, one's desires similarly took time to unfold, whereas in the latter one expects them to arrive 'on-demand' which is to say suddenly and violently. There is literally no time left to wait for things, for the time of waiting (i.e. analogue time) is disappearing.

TO BE CONTINUED....

- i For example, '0s' and '1's, which are nothing more than a stream of electric current turned 'off' or 'on'.
- ii McLuhan. *Understanding Media*, Cambridge: MIT Press, 1994, p. 8.
- iii McLuhan, Marshall. *Understanding Media*, p. 7.
- iv Deleuze, Gilles and Guattari, Félix. *Anti-Oedipus*, Minneapolis: University of Minnesota Press, 2000, pp. 240-241.
- v McLuhan. *Understanding Media*, p. 8.
- vi Saussure, Ferdinand de. *Course in General Linguistics*, Chicago: Open Court, 2005, p. 15.
- vii Hjelmslev, Louis. *Language: An Introduction*, Madison: University of Wisconsin Press, 1970.
- viii For more on the concept of desire as the only commodity, see Deleuze and Guattari. *Anti-Oedipus*, specifically
Part I, "The Desiring Machines", pp. 1-50.
- ix <http://www.independent.co.uk/news/media/its-not-subtle-but-body-advertising-is-a-lucrative-way-of-using-your-head-486841.html>
- x See Deleuze and Guattari's take on Artaud's concept in Deleuze, Gilles and Guattari, Felix. *Anti-Oedipus*, Minneapolis: University of Minnesota Press, 1983, pp. 9-15.
- xi Baudrillard, Jean. *Simulacra and Simulation*, Ann Arbor: The University of Michigan Press, 1994, p. 23. For Deleuze, in contrast, the virtual is the essence of Substance, immanent to all materials. Following Bergson, Deleuze calls the essence of Substance "virtual", as it is concealed within the concrete modes it produces. The virtual essence of Substance is neither transcendent nor transitive, for it instantiates materials without being absolutely embodied by any particular material it engenders. Thus there is no metaphysical divide between Substances virtual essence and its concrete modes, rather the virtual is inherent-within and immanent-to the concrete modes that it expresses. Borrowing Proust's famous line, the virtual is "real without being actual, ideal without being abstract." See Deleuze, Gilles. *Proust and Signs*, Minneapolis: University of Minnesota Press, 2000, pp. 57, 60, 65; and Deleuze, Gilles and Guattari, Felix. *What is Philosophy?*, New York: Columbia University Press, 1994, pp. 156-157.
- xii Jarry, Alfred. *Exploits & Opinions of Dr. Faustroll, Pataphysician*, Boston: Exact Change, 1996, pp. 21-22: "DEFINITION: *Pataphysics is the science of imaginary solutions, which symbolically attributes the properties of objects, described by their virtuality, to their lineaments.*"
- xiii http://en.wikipedia.org/wiki/The_Matrix
- xiv <http://en.wikipedia.org/wiki/Holodeck>
- xv <http://www.ydsquare.ca/>
- xvi <http://www.torontoeatoncentre.com/EN/centreinfo/Pages/Default.aspx>
- xvii Artaud, Anonin. *Selected Writings*, Berkely: University of California Press, 1988, pp. 242-251.
- xviii McLuhan, Marshall. *Understanding Media*, p. 3. If every movement disturbs the physical universe, our technologies merely extending and amplify this disturbance. In the extreme this amounts to nuclear warfare, the extension of one's movement to the 'absolute', which is to say 'the power to destroy all'.
- xix Towards this end, we should all be asking why, given the prevalence of personal wireless technologies, are we not already creating systems of universal direct democracy at the level of our parliaments and senates?
- xx Let us give an example from popular culture. In horror films, the werewolf is a digital monster, for the werewolf transformation begins precisely at midnight on a full moon. The vampire, on the other hand, is an analogue monster, for the vampire arises as the sun is going down, in the unfolding of the sunset, the rising of the night. Perhaps this helps to account for the popularity of werewolf films in the 80s, precisely when digital was taking off. In contrast, Murnau's *Nosferatu*, arguably the best vampire film of all time, was born out of German expressionism, an existential movement emphasizing the becomings of shadows and moods. Today's monster is the zombie, the simulacra of a living human, or the human being stripped of all choice, slave to the consumption of flesh.