Scary Networks? Viruses as Discursive Practice

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Introduction

Despite their ambiguous status as entities located in the limbo between life and death, and despite their assumed parasitical nature, suggestive of a passive, yet exploitative performance, viruses seem to be governed by a quite active and dynamic agency. In fact, they are ubiquitous entities that appear to traverse, incorporate and transcend disciplinary boundaries and locations. Or it is maybe their unexpected and unpredictable behavior that seems to carry the potentials for novel discursive practices.

In the first case, describing a virus as a mere particle that harbors in and spreads through our bodies or as a string of digital code that propagates through our computer networks is not sufficient. Its being increasingly constructed and understood as a notion leading to a general and more abstract—but not less vivid—cultural significance have turned it into an active player that participates in our everyday life and that encompasses the sciences as much as technology. Therefore, its importance is not in its "being" a virus as particle or code observable separately from its original environment, but lies in its simultaneous and multiple relevance and presence in many contexts at the same time. It is from this ubiquitous advantage-point that the virus underscores, explains and unpacks the existence of a close relation between science and technology.

In the second case, its very mode of its peculiar kind of dynamism and fugitive behavior could be well adopted as a strategy or as a behavior in itself. Adopting "viral discursive practices" could mean bypassing and rejecting a traditional discourse built upon continuous constructions of dichotomies, dialectic relations and hierarchical ranking that always result in the prioritization of a "preferred interpretation", a "mainstream way-to-act" and in the annihilation of any alternative option.

All the above characteristics can be ideally observed in a number of artistic interventions that have actively engaged with the virus as notion, concrete entity or tactical strategy. Thanks to their visual language, these artistic practices are instrumental in unveiling not only the ambiguous and often hidden patterns of power existing between science and technology, the arts, and popular culture, but also the potentialities offered by the use of "viral characteristics" as strategies of action.

One clue, many options

To assume that viruses and transposable elements are first and foremost causes of disease is like assuming that automobiles are first and foremost made to kill people. (Bear 2003, 24)

In Part 1 of science fiction novel "Darwin's Children," Kaye Rafelson, a scientist, virologist, and mother of a so-called "virus child" (a child born through a pregnancy induced by the SHEVA virus and therefore a mutant, a freak, a potentially dangerous creature) is reviewing a paper where she tries not only to demystify the myths and prejudices about viruses, but also to suggest and demonstrate their utility and necessity for the evolution of human beings and the emergence of new species on earth.

Rafelson's statement calls for the rehabilitation and rethinking of an entity that is historically being labeled as "absolutely negative," dangerous and superfluous.

The hypothesis is not merely the result of the author's fantasy, but it is object of controversy within a—this time very real—scientific community. Joshua Lederberg, for instance, in his critique of immunological practices, complains about the marginalization of most research that studies the burden of mutual adaptation between virus and host, in favor of an hyper-aggressive practice that treats viruses as non-welcomed and finds in their elimination the only solution (Lederberg 2000).

But can the above quote be only about biological viruses? If considered separate from its narrative context, the sentence could easily refer to another category of viruses that, this time, do not affect our body made of flesh and blood but instead our hard drive and our networks. The terminology used to describe biological viruses (this is the case of SHEVA virus) can be easily adapted to refer to computer viruses, Trojan horses and other commonly defined "malignant" code circulating within the information networks, as if their attributes and characteristics were interchangeable. An uncanny correspondence can be identified between two apparently different and mutually excluding domains, the human or natural domain and the digital realm. This is not to demonstrate that computer viruses and biological viruses are equivalent, as it would represent a gross oversimplification and an hypothesis difficult to demonstrate. The phrase suggests correspondence, not equivalence. In other words, whether intercepted on the Internet, in our hard drive or in our body, viruses participate in and are pervaded by an identical rhetoric of discourse that produces a similar metaphorical language and invests them with similar connotations dictated—consciously or not—by cultural, social and political assumptions (Foucault 1989). Correspondence implies the existence of a crossbreeding between disciplines, an invisible thread that unifies, in this case, biology and technology and that transcends the lines of separation arbitrarily placed between them.

In addition, Rafelson seems to advocate for a certain degree of mutual adaptation between the virus and its host, be the latter a natural creature or an agglomerate of bits, as both appear to be affecting each other and simultaneously interacting with their "natural" environments. The heroine seems to conceive viruses not only as part of a complex, natural, or in our case, digital system, but also dynamic systems themselves. What's at stake here is not the virus as a theme or its legacy as a profound culturally embedded notion with its value as a marginal, evil and demonized nature, but the very process through which the virus reveals itself and functions. This last element calls for a closer analysis that incorporates the very functioning of viruses and their use as tools necessary for the construction of a discourse.

Invisible dynamics

Lately, much ink has been spread on viruses. No matter what category or what quality of viruses is being discussed, the recurrent rhetoric of discourse that invests all viruses is almost a trademark that unifies them in the name of a similar general perception. This indicates the existence of a power relation that always locates viruses in a "position of constant inferiority and in opposition to" other natural elements or digital entities (Braidotti 2002). Popular beliefs and consolidated perceptions of viruses' manifestation in conjunction with the influential role played by a rather stigmatizing etymology have led to a silent acceptance of their negativity and to the impossibility to recognize that they may contain any positive quality at all.

In addition, the acknowledgement of the similarities existing between biological and computer viruses in the age of global travels and network communications accompanied by an increasing preoccupation for national security and fear of biological attacks of terrorist nature have magnified a general media anxiety aiming at underscoring and exaggerating their negative consequences (Galloway, 2004). Cornered in this atmosphere of fear and rejection, viruses have become the perfect candidates for the champion of otherness.

It is in part against the well-grounded perception of their unsolvable negativity and mostly because of their very negativity that a number of artists and creative individuals have increasingly made viruses their major topic. Were this characteristic eliminated, also what makes them fascinating would cease to exist. Viruses are naturally exploited for their pure controversial characteristics. It is sufficient to have a look at the title of this conference: "No one opens attachments anymore." Although there is no mention to computer viruses, our immediate thought goes to them. The title suggests uneasiness and caution, but also appeal and curiosity.

By making the defense of this "evil entity" their major goal, many artists have treated viruses as metaphors rather than particles or string of code. As they are conceived as "other," "marginal" and "repressed," then they "must be automatically "revolutionary," where the connection between "repressed" and "revolutionary" is erroneously inverted to invest the virus with a political value (Rella, 1994 [1978]). Defending the virus in itself, means, in this case, going against the grain, refusing to accept a social, political, or scientific status quo, locating oneself in a subversive and innovative niche that, nowadays, sells rather well.

Others, instead, have tried to dissipate the negativity of viruses by taking the audience's attention away from their apparent configuration as exclusively malignant entities and by focusing on their complexity. This is true in *Infrasense*: the computer virus moves simultaneously between three different spaces, online, off-line and in people's imagination, taking the shape of a horse, a story and a computer. In this installation, Trojan Horses and bugs are represented both in a digital and concrete form. They become simultaneously part of two apparently incompatible spaces, the digital space and the physical realm, blurring and confusing their borders, showing their reciprocity and dynamic articulation and, finally, underscoring the way the users are not merely passive receivers, but also active carriers, transmitters, witnesses and narrators of viruses. It is part of the viewer's task to activate the installation by remotely triggering the content of the Trojan Horses. Surprisingly, the latter do not release any "physical version" of some viral and malignant entities. On the contrary, they utter recordings by local users who narrate their experiences with and personal stories about viruses.

Although the participant is not physically affected or damaged by any virtual infection spread online and transferred onto the physical space, she appears to have somehow psychologically and emotionally internalised and incorporated it. In this context, she has become a "human agent" that activates the virus. At the same time, she narrates her story within the Trojan horse, becoming one thing with the virus.

The act of transcending incompatible spaces unveils the complex nature of the virus. The virus itself reveals the intertwining and inseparability of differently perceived and usually separated space dimensions. The virus affects the participant. This aspect becomes even more apparent when one listens to the stories narrated by the interviewees

trapped within the Trojan Horses' backpacks. Most of their stories do not regard computer viruses, but so–called "real" and "scarier" biological viruses such as flu or more generic disease (but nonetheless scary) such as cancer. These last elements of the installation not only contribute to showing viruses as substantial and naturally embedded presence of our daily life, something that cannot and should not be alienated from human beings (physically, and, in the case of computer viruses, psychologically) and from OS. They also underscore the ever-present, but rarely underscored relation between Biology and Technology.

The existence of an unspoken, indeed very present correspondence between biology (or science) and technology is no news. For Lily Kay the relation has always been quite explicit. The information discourse has been conceived as a system of representations. Since the Fifties, viewing the human genome as an information system, metaphorically and poetically described as the *Book of Life,* became "intuitive and commonsensical" and a new form of biopower: "material control was supplemented by the control of genetic information" (Kay, 2000). As human beings are increasingly described in terms of information, message and code and "heredity functions like the memory of a computer, organs, cells etc.. all united by a communication network"(Jacob, 1973), new technologies are called to function not only as decoders and decipherers but also as simulators and synthesizers of life (Langton,1996). Biology and Technology join at various points in Artificial Intelligence and Artificial Life, and become interwoven in the emerging disciplines of biocomputing and bioinformatics (Thacker, 2004).
However, Langton observes: "biology is the scientific study of life on earth based on carbon-chain chemistry. There is nothing that restrict biology to carbon based life, but it is the only life that has been available to study" (Langdon, 1996). Thus, the relation between biology and technology is one that aims at extending the domain of the first one to the second, and not vice-versa. Technology is at the service of Biology. The latter always speaks louder as it tends to become the major model upon which technologies are shaped.

In *Infrasense*, the portrayal of viruses makes the above gregarious role of technology quite evident: the protagonists of the installation are already "generic viruses" before being computer viruses. In the same way, they contain already a series of descriptions and attributes, and are characterized by assumptions that originate from biological viruses. Computer viruses are already and "incurably" bound to their biological counterpart from which they can hardly separate.

More importantly, computer viruses escape the digital domain to reach the physical space and to subtly infiltrate other –real, virtual or imaginary—spatial domains. However, when it comes to the part involving the virus' storytelling, it is the biological virus that leaves a more incisive trace and that ultimately finds its way into people's narrations. The last thought is always about issues that ultimately affect the human body and not the so-called "inanimate machine." In the relation between biology and technology, biology occupies the first place.

The topic becomes the practice

The above phenomenon that sees biology prevailing and ruling over technology and that pictures the latter in a rather supplemental position is comparable, in its uneven and unbalanced articulation, to the kind of relation existing between technology and the arts.

The collaboration between the two disciplines has been welcomed by a number of scholars, artists and curators who believed that a fair combination, dissemination and problematization of topics and knowledge deriving from such different fields could foster truly creative practices. However, simply praising such relation as desirable means not taking into account power dynamics and difficulties of communication already existing between the two disciplines.

Aside from the historical and much debated superiority of technology over the arts, the role of popular culture plays a paramount role in determining what technologies and what content ought to be employed to make a successful artwork. Technologies tend too often to become the only focus of the artwork, while the artistic content and whatever message attached to it is either impoverished by an artist too enthusiast about the results obtained with a new piece of technology or superficially understood by an audience that is heavily influenced by much writing about the technology used. Inserting a content that might not be too popular or "sexy" would be a high risk for the artist and his work. To make some famous examples, the incredible amount of documents and studies produced in the eighties about interactivity presented as the ultimate achievement of computer science was immediately accompanied by a plethora of artworks and installations focusing on the possibilities and variety of communication produced with interactivity. The short-lived excitement about virtual reality resulted in massive and cumbersome installations that worked more as demos than artworks with solid content.

As a mass hysteria of scary bulletins, frightening studies and threatening warnings are spread about viruses, what happens to the artwork, whose very topic focuses on viruses? Most artists construct their artworks using either the technical and structural features of viruses as their model or their negative connotations as a starting point. The virus becomes the absolute protagonist of the artwork. In most cases, the peculiar complexity that characterizes viruses seems to be almost relegated in the background. Instead, maximum attention is concentrated on and limited to those attributes that have made viruses popular: negative connotations, dreadful urban myths and catastrophic consequences. This does not mean that the artwork carries no trace of unpopular or suppressed attributes. However, despite the innovative potentials shown by the structure and phenomenology of computer viruses, the gallery goer or the observer will be always and immediately attracted to the given notion and by the fascinating way in which such notion is apparently being subverted. What lies beneath is always left over or barely noticed. This constitutes an obstacle that still has to be overcome.

However, there is another way that allows the exploration of viruses by still managing to locate the artistic practice against established and flattening popular assumptions, and yet, without necessary permitting a loss of those very positive characteristics and complexity originally planned to be included in the artwork. In fact, as already mentioned, talking about viruses does not mean solely referring to the molecule that constitutes them or to the piece of coding that triggers them, but it means also taking into account a series of other factors that include the way viruses are culturally perceived and, most of all, their very functioning and behavior. In other words, viruses should not be used only as a topic *per se*, but they should be incorporated as a necessary part of the artistic process, as a *practice*.

Infrasense appears to represent a rare attempt to employ viruses in both ways. Instead of making a clear statement in defence of or as a commentary on computer

viruses, *Infrasense* explores their very process of transmission and diffusion. The result is a lucid critique that uses the very way viruses operate to belie and dissolve the wave of fear ascribed to their diffusion. Such strategy could unveil and eventually defeat the amount of prejudices and assumptions that undermine not only the way we perceive and construct viruses, but also the way we interpret the space that surrounds them. Turning the virus with all its apparatus of attributes, phenomenology and behavior into a discursive element embedded in the very process of making art could well lead not only to its conceptual reformulation but also to its use in other contexts as an independent discursive counter-practice.

References

BEAR, G. (2003). Darwin's children. New York, Ballantine.

BRAIDOTTI, R. (2002). Metamorphoses, Towards a Materialist Theory of Becoming. Cambridge, MA: Polity Press.

FOUCAULT, M. (1989 [1969]). The Archaeology of Knowledge. London-New York, Routledge.

GALLOWAY, A. (2004). Protocol. Cambridge, MA, MIT Press.

JACOB, F. (1973). The Logic of Life: a History of Heredity. New York, Pantheon Books.

KAY, L. (2000). Who Wrote the Book of Life? A History of the Genetic Code. Stanford, CA, Stanford University Press.

LANGTON, C. (1996). Artificial Life. The Philosophy of Artificial Life. M. A. Boden. Oxford, Oxford University Press**:** 39-94.

LEDERBERG, J. (2000). "Infectious History." Science **287**(5464): 287-298.

RELLA, F. (1994 [1978]). The Myth and the Other. Washington, DC, Maisonneuve Press.

THACKER, E. (2004). Biomedia. Minneapolis MN, University of Minnesota Press.