Body-Crash: “The Impact Will Be Real”

On How the Metaverse Could Affect Our Bodies

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> “Thanks” Joe said to the spray can. We are served by organic ghosts, he thought, Who, speaking and writing, pass through our new environment. Watching, wise, physical ghosts from the full-life world, elements of which have become for us invading but agreeable splinters of a substance that pulsates like a former heart.
>
> PHILIP K. DICK[1]

INTRODUCTION

In the history of the United States, few concepts have federated and embodied American identity as much as the concept of the *frontier*. Through the Wild West, then the moon, the deep historical dynamism of the United States’ history seems to have always rested on this founding notion, this myth that stands for a human limit to be pushed back, wild territories to be conquered: whether on land or in space, real or imaginary, intellectual or sporting ... The idea of the frontier represents these conquering people or individuals galvanized by the idea of being *first*. It was already present in the (re)discovery of the continent by Europeans. US Americans are those of us who left, who left the *old* world, for more fertile lands. For a new existence.

In this respect, it is not surprising that this myth of the frontier is resurfacing today to motivate the masses to believe in high ideals and positive and promising

1 Dick, Philip K.: *Ubik*, Boston, MA: Mariner Book 2012, p. 225.

futures.[2] Along with the conquest of Mars, the conquest of the Metaverse is the ideological pursuit of the American *Dream*, which is constantly confronted with a frontier, a limit that must be overcome, transcended.

That is what the tech giants Meta, Microsoft, and Apple are promising when they point to this new direction. "*The impact will be real*,"[3] they say, highlighting how this new El Dorado, rich in potential, will redefine our relationship with the virtual. It is already proposed that we go and *inhabit* the Metaverse, just as we might inhabit the Earth.[4] Our bodies thus seem very close to touching virtual reality and melting into it. It seems less and less virtual. This movement of de-virtualization of the virtual, which seems to give it more and more weight over material reality, is largely based on so-called 'immersive' technologies (i.e., XR for Extended Reality technologies). With them, in the Metaverse, it is not only our relationship to the virtual but also to the real that will change.

A major challenge is emerging: trying to understand more precisely what this new relationship with the virtual and the world entails; to grasp the impact of using these immersive technologies in our lives; to understand and even anticipate how we will relate as *embodied* subjects to the new world of the Metaverse.

The approach I undertake to address this issue is twofold. First, it consists in selecting, from the totality of the discourses swirling around the subject, one particular discourse: that of science fiction. Science fiction authors can not only claim to be the precursors of the term Metaverse, but they also permeated the collective imagination, prefiguring this discursive totality. In a way, re-reading them might be the best way to understand a concept they created, especially when all the discourses seem to be of an unthinking form of science fiction.[5]

The corpus I propose to analyze has the quality of having elaborated operative concepts and having thought of them in concrete situations. They are certainly fictitious, but they develop an important quantity of thoughts, reflections, and speculative experiences, which form an inexhaustible source for the understanding of the present. Through Neal Stephenson's *Snow Crash* (1992), William Gibson's

2 Cf. for example: Page, Thomas: "Pixel Pushers: How the Metaverse Became Real Estate's New Frontier," *CNN*, September 23, 2022, https://edition.cnn.com/style/article/metaverse-real-estate-market-2022-spc-intl/index.html

3 Meta, "The Metaverse May Be Virtual, but the Impact Will Be Real," *FB*, September 5, 2022, https://about.fb.com/news/2022/09/the-metaverse-may-be-virtual-but-the-impact-will-be-real/

4 Cf, for example the *Skylum* project, a start-up which, among others, proposes to buy high-standard flats in the Metaverse (https://skylum.house/).

5 As they all try to predict, anticipate and sell the future.

Neuromancer (1984), and Philip K. Dick's *Ubik* (1969),[6] I mobilize a corpus that has brought its characters into contact with a virtual reality close to the Metaverse—alternately called Metaverse, cyberspace or pseudo-universe. The characters have lived, loved, struggled there and represent in some way *the first* to venture there. With them, I defend the idea that the interpretation and understanding of literary works can allow for coherent thought about the Metaverse and the present in general.[7]

However, my approach to these texts is to choose a particular perspective. It is inspired by the phenomenological method,[8] which analyzes the experience of consciousness and the way the subject relates to the world and the objects around them. This phenomenological interpretation of past and American authors seems fundamental to me on two levels:

First, it has the merit of asking what will happen to our bodies in the Metaverse, starting from an archaeological reflection on the material conditions of possibility that determine our connection, our relationship to the virtual. It is the opportunity to present a detailed analysis of the relationship between a *possible* subject and a technical object. I then question the lived experience involved in this relationship and the structures of meaning that emanate from it.

Secondly, if the very nature of the Metaverse still eludes us—its definition (or definitions?) remaining elusive—such an approach will make it possible, by returning to the fundamental conditions of possibility of the Metaverse experience, to question its nature and elaborate a concrete and more precise characterization. Better still, perhaps by starting from the bodily experiences implied by technology, and enlightened by science fiction literature, an ontology of the virtual may emerge from these few reflections.

6 For my research, I used the eBook editions of these: Dick, Philipp K.: *Ubik*, Boston, MA: Mariner Book 2012; Gibson, William: *Neuromancer,* London: Gollancz 2016; Stephenson, Neil: *Snow Crash*, New York, NY: Del Rey 2022.

7 The idea came to me while reading Gundolf S. Freyermuth: "Vegas, Disney, and the Metaverse," in: Beil, Benjamin et al. (eds.), *Playful Materialities*, Bielefeld: transcript 2022, pp. 17-98. Freyermuth compares *The Street,* the vibrant and colorful place of the *Snow Crash* Metaverse, with the Las Vegas Strip, a very real place, which has undoubtedly served as an operating model for the conception of contemporary Metaverses.

8 Noticeably in Husserl, Edmund. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. *Book I*. Trans. F. Kersten. The Hague: Martinus Nijhoff, 1983.

Due to the shortness of the text, these considerations take on the aspect of avenues of research, more than real fundamental breakthroughs: the bulk of the work remains to be developed on this basis.

Finally, the development and exposure of my reasoning will be as simple and direct as possible. Drawing on the said works of science fiction, I will seek to excavate the material and carnal conditions of the Metaverse experience to determine its fundamental phenomenological definition. Then, I will question the impact and consequences of my analyses on the subjects' experiences and the becoming of their bodies in the Metaverse. Thus, from a more precise understanding of the Metaverse (first part), I will try to grasp its stakes and possible avenues of research (second part).

THE DEVICE-BODY AND THE MACHINE-FLESH

> I think it's fruitless to take the self-mirroring of the mind as a starting point and […] I find no research worth doing unless it uses the body as a guide. Not a philosophy as a *dogma*, but rather as a preliminary guideline for research.
> FRIEDRICH NIETZSCHE[9]

After this introduction, it still seems difficult to understand what justifies the corporal theme that we have decided to follow in our explanation of the Metaverse. Certainly, the methodological a priori that guides us implies going back to the lived experience, but it is still unclear if this postulate is valid and *in what way* it really enlightens us on the Metaverse.

The Virtual Nexus

DECENTRALAND, MERGE, HORIZON WORLD, SECOND LIFE, ROBLOX, FORTNITE, and so on—so many experiences, worlds, and Metaverses that do not necessarily have anything to do with each other. Some seem to be video games; others work and meeting places. However, a fundamental and minimal characteristic remains:

9 Nietzsche, Friedrich: *The Complete Works of Friedrich Nietzsche XV, Unpublished Fragments from the Period of Thus Spoke Zarathustra (Spring 1884—Winter 1884/85)*, trans. Paul S. Loeb/David F. Tinsley, Stanford, CA: Stanford University Press 2022, p. 246.

they all engage the user in an experience of spatiality. Because the Metaverse implies at least a spatial dimension in which the interactions will *take* place. The Metaverse is a *spatial representation* of a virtual space that until now has lacked one.[10] This is the first definitional element that Neal Stephenson insists on when he introduces the concept:

"So, *Hiro's* not actually here at all. *He's* in a computer-generated universe that his computer is drawing onto his goggles and pumping into his earphones. In the lingo, this imaginary place is known as the **metaverse**. Hiro spends a lot of time in the metaverse. [...] The Street seems to be a grand boulevard going all the way around the equator of a black sphere with a radius of a bit more than ten thousand kilometers. That makes it 65,536 kilometers around, which is considerably bigger than Earth."[11]

With the Metaverse, we move from a web *page* accessed by a browser (Chrome, Explorer, etc.) to a virtual space in two or three dimensions, wherein we will *finally* 'navigate.' For this spatialization of the virtual, its augmentation into a *measurable* space implies from the outset a punctum that would represent the position of a spectator in the 'virtual scene.' In the virtual world, spatiality implies a perceptual element that engages a spectator immersed and *situated* in the scene. For virtual space to exist is to be perceived, or at least to exist for a possible perceptual system.

It is sometimes a simple camera that runs through the scene. But it is also, in the case of video games and more elaborate Metaverses, a simulated body with various forms and aptitudes. It appears that such a virtual space involves the presence of an *avatarial dimension,* whether incarnate or not, interactive or not, visual or auditory. The Metaverse, like video games, is thus based on the development of the so-called *3Cs* (Camera, Character, and Controller). This virtual perspective in the scene, therefore, implies a place but also an ability to move in the scene, from one coordinate to another. If this virtual space is interactive, the virtual body must intimately *belong to* the space in which it is found. Its perceptive capacities and principles of interaction must be coherent, *in sync*, with the host space. Together, they form what I call a v*irtual nexus,* which bonds the body to 'its' space. Indeed, the virtual body *integrates* the properties of space in order to move and exist in it: physics, visibility, and other forms of sensitivity, etc. This intertwining

10 Thus, for Gibson, cyberspace is a *non-space,* despite its undoubted sensory dimension. In this way, he underlines the paradoxical aspect of virtual spatiality.

11 N. Stephenson: *Snow Crash,* emphasize IB, p. 27.

can be found from the very first phases of the development of a video game and is the basis of its ludic principles—even before the appearance of a player.[12]

While it seems natural to characterize a video game by its nexus because the avatar must necessarily be able to evolve in it, this is less natural in the case of internet browsing. However, with the spatialization of the virtual, the Metaverse proposes to give a corporal dimension to our relationship with the internet. It thus moves from the age of the printing press (the two-dimensional web page) to that of the massively multiplayer online video game—and even further.

Now that we have defined the *metaversal* architecture from a software point of view as a minimal spatio-corporeal entity, the material side underlying it must also be analyzed to fully grasp its carnal significance.

The Device Body

With the growth of the web, we are witnessing a quantitative and qualitative inflation of the machines that determine access to the network (*network machines*). Yesterday, limited in space (fewer, more expensive) and time (slower, less efficient), they now form a complex and sprawling ecosystem. Fiber optic networks, 5G antennas in permanent connection with geostationary satellites, but also headsets and extended reality glasses—not forgetting, of course, USB peripherals, smartphones, and other tablets. Along with the miniaturization of components and transistors comes a genuine *rebound effect,*[13] which consists of a rise in consumption linked to the reduction in production costs made possible by innovation. This rebound effect is expressed in the multiplication of mechanical devices that surround our bodies to allow access to the network—along with everyday life activities: this is the reign of the peripherals as network and life interfaces.

A kind of paradox arises: miniaturized technology has never been so numerous, yet *invisible*, to the extent that it seems to become virtual itself. This material

12 Cf. Merleau-Ponty, Maurice: *The Visible and the Invisible,* Evanston, IL: Northwestern University Press 1968. Especially the chapter "*The Intertwining—The Chiasm"* where Merleau-Ponty explores the co-ownership of the sensing body (flesh) and the world sensed by the body. The body belongs to the world in a kind of reversibility of sensitivity, for as a sensible being it is both sensing and part of the sensible. The *virtual nexus*, properly understood, is therefore a simulation of this phenomenological concept.

13 Cf. Schneider, François: "The Rebound Effect," *The Ecologist (French Edition)*, no11, October 2003, p. 45; Binswanger, Matthias: "Technological Progress and Sustainable Development: What About the Rebound Effect?," *Ecological Economics* 36 (2001), pp. 119-132.

infrastructure determines our possible experience of the Metaverse, as it is intimately connected to our body, which it encloses like a *prosthetic matrix,* endowing it with the capacity to 'walk on the invisible.'[14] Without this prosthesis, an interweaving of organic and machine matter, a mixture of material and virtual, the organic body remains powerless to connect, unable to reach the world beyond. As Case, the hacker and main character of *Neuromancer*, experiences at the beginning of the book when removed from cyberspace by a chemical process. That way, his former employers make him unable to connect and navigate in cyberspace, punishing him for his treason:[15]

"They damaged his nervous system with a wartime Russian mycotoxin. Strapped to a bed in a Memphis Hotel, his talent burning out micron by micron, he hallucinated for thirty hours. The damage was minute, subtle, and utterly effective."[16]

This integration of the body into the machine obeys a process of virtualization of the body through machine coupling. Indeed, for a sensory relationship to be established with the avatar dimension, the machine must mimic the sensory properties of the body, as a glove mimics its hand. Without us being aware of it in our daily use, it replicates our body to communicate with it at a sub-language level. In this way, it creates an underlying carnal infrastructure that addresses us in 'body language.'

Thus, helmets frame our skulls, glasses, and lenses are grafted onto our eyes, headphones are inserted into our ears, and microphones close to our mouths pick up our slightest vocal inflections. As the joysticks are placed in our hands, without us even realizing it, we are faced with a *second body*, a material sensory replica of our organic system. And we coil ourselves in it, voluntarily, with a deep, carnal connection, full of implicit meaning. This machine-like mimicry of the human body, which can be observed and verified in our everyday environment, operates as an unconscious and necessary projection of the body towards its environment

14 This prosthetic dimension in videogames has been studied by Rune Klevjer in his paper "Enter the Avatar: The Phenomenology of Prosthetic Telepresence in Computer Games," in: Sageng, John Richard/Fossheim, Hallvard/Larsen, Tarjei Mandt (eds.): *The Philosophy of Computer Games*, Dordrecht: Springer Netherlands 2012, pp. 17-38. I pursue here his reflections by radicalizing them in a "techno-corporal" perspective, where our corporeal space-time is deeply transformed by these machines.

15 The spatial nature of the virtual actualized by the Metaverse therefore implies problems of *accessibility* to the network for any possible body.

16 W. Gibson: *Neuromancer,* p. 6.

to create a *network of meanings that shapes the world.*[17] In the context of a projection of the body towards an avatar dimension, this mimicry functions as a progressive sluice that sensorially reinforces the living body's sense of *being present in the virtual world.* This *specular instantiation of the body* operates like an airlock, which, through a set of successive specular instances—*or mirrors of the body* (joystick, screen, etc.)—proceeds to the *actual* virtualization of the body.

This specular dimension is paradoxical, however, since the mirror here does not completely reflect the body. Instead, by mimicking it, it extends the body and leads it to project its own 'original' spatiality—its 'body image'—into virtual space. This *schema* is the proprioceptive and kinesthetic perception of the body. It represents the bodily *dimension*, which, in a purely carnal and ante-predicative way (prior to any language), is situated in the world. It is the *body's own knowledge,* elucidated in particular by Merleau-Pontian phenomenology and the psychology of the form (gestalt psychology).[18] It permanently indicates the position or situation of the body and elaborates the primitive distinctions of its corporeality: its near space opposed to its far space, its left opposed to its right, etc.

Like breathing, this spatial existence of the body is not elaborated by the conscious mind. It is part of the body's innate properties and emanates naturally from the primitive (or primordial) corporeal subject, defining its instinctive relationship to the surrounding space. By grafting itself directly onto it, the matrix apparatus exploits this property of the body. Its virtualization in a virtual environment is, therefore, *real*—if we mean by this, *the projection of our sensory-motor system into virtual space*. Paradoxically, by enclosing it in a *techno-flesh* gangue, the machine brings the body *out of itself.* Thus, Case in *Neuromancer,* during his reconnection to the matrix:

"He stared at the deck on his lap, not really seeing it, […] He glanced up […]. Found the ridged face of the power stud. And in the bloodlit dark behind his eyes, silver phosphenes boiling in from the edge of space, hypnagogic images jerking past like film compiled from random frames. Symbols, figures, faces, a blurred fragmented mandala of visual information. […] Disk beginning to rotate […]. Expanding—and flowed, flowered for him, fluid

17 Cf. Heidegger, Martin: *Being and Time,* Oxford: Blackwell 1962. Especially Part one, chapter III, where the concept of Worldhood (*Weltlichkeit*) is developed. It designates the properly understood human world. The network of objects and meanings that structures it.

18 Cf. Merleau-Ponty, Maurice: *Phenomenology of Perception,* trans. Colin Smith, London: Routledge Classics 2002. Especially in the first part, chapters II and III, where Merleau-Ponty defines and discusses the concept.

neon origami trick, the unfolding of his distanceless home, his country, transparent 3D chessboard extending to infinity. Inner eye opening to the stepped scarlet pyramid of the Easter Seaboard Fission Authority […] and high and very far away, he saw the spiral arms of military systems, forever beyond his reach."[19]

The subject's *augmented* body is inscribed in its virtual environment *at the same time as* it is inscribed in its material one. From an intentional point of view, a temporal and interactional synchronization between the mastery of the apparatus and that of the *avatar* is then developed.[20] The more I am present in the virtual space, the more I occult my material space: the latter, whether it was a simple keyboard and mouse set, a joystick, or a VR device, is as if it were *crossed* or traversed. It tends to disappear in order to make the world or the page appear, behind which the display is hidden: the show *conceals* (its support) while showing (its content).

To lift the veil on this hidden aspect is to show that the mechanical dimension of the virtual is not specific to the Metaverse. The mereological combination of virtual and material ecosystems transcends itself into a *presence* that the user will be able to *embody*, in the manner of a video game.[21] Such a virtual incarnation allows for new goals and values specific to this dimension of the world to be created.

This presence of the body *to* the metaversal virtual entities is the fundamental conceptual achievement of this preliminary reflection. It is the comprehension of the sensation of being *here and now* in relation to the virtual dimension. From this point of view, the interfaces and control surfaces (UIs and Controllers) serve as feedback for synchronization with the virtual world in question. Again, the subject's interfacing with the virtual object is determined by the machine and the network mesh: presence is both a spatial (*being near)* and a temporal (*being at the same time*) concept. Thus, any latency caused by a *lag* in the interaction obviously and intrinsically contravenes the very concept of presence: to exist, it requires the absenteeism and overcoming of the machine support.

Virtual presence is here revealed as *the material coupling* that determines the experience prior to any presentation of virtual content. But in doing so, it has not yet been possible to distinguish what makes the experience of the Metaverse and separates it from the video game. Thus, is the concept of presence sufficient to define the Metaverse?

19 W. Gibson: *Neuromancer,* p. 58. This is the ecstatic experience of the virtual.

20 That is, from the point of view of the consciousness of the embodied subject.

21 Where the whole transcends the parts into a complex unity.

What Hath God Wrought?

To structurally differentiate the Metaverse from video games, we need to go back to the principles of interaction of the game and the relationship it maintains with the player. The game places the player in the presence of a finite world, with possibilities irreducible to those of material and logical reality. By definition, every *game* is *a play with the world.* It frees itself from natural regulation and offers the player, through a regulated fiction, to interact meaningfully with their new environment.

A game, therefore, sets up a system of so-called *symbolic* interactions, i.e., interactions that have no necessary link with the gesture required of the player. Pressing X does not mean jumping—except in a game: it is an arbitrary sign that brings together two actions that have nothing to do with each other. And in fact, looking at a player without looking at the screen does not help to understand what they are doing in the game. Therefore, the more we recognize the player's action without looking at the screen, the more the game will integrate an *equality* between the gesture made by the player and the gesture of their avatar. This equalization of gestures, which minimizes the symbolism specific to the game, is the *naturalization* of interactive gestuality. This is what we find in particular in natural user interfaces (NUIs), which take up the natural movements of the user to correlate them with identical movements in applications.[22]

The development of these natural interfaces and interactions *has* permeated the design of internet applications for the last decade or so, with the introduction of the iPhone in 2007. Since then, natural interfaces have been the subject of a real boom, both ideologically and technologically.[23] This is because the use of the web, like the Metaverse, is intended for non-gamers and, above all, non-experts: the naturalization of interfaces and interactions is part of a movement to democratize access to the Internet, and the need for users to quickly and easily get to grips with the technologies, without having to go through daunting learning phases.

However, if the game can afford to break the naturalness of gesture to symbolize a series of meaningful actions, it is because it is not *primarily* concerned with entering into communication with others: by playing, I interact with the game

22 It is true that symbolic interactions are still possible with NUIs, but they are not suitable for this kind of interaction, and are used above all *within* the framework of a game activity.

23 Cf. Krishna, Golden. *The best interface is no interface: the simple path to brilliant technology*. Berkeley, CA: New Riders, 2015.

world. Through it, I also play with myself and my mastery of gameplay and controls[24]. This dimension of *mechanical competence* is absent from social interaction insofar as the latter requires a clarity, a transparency that makes it possible to redirect the attention of the interlocutors towards the skills that are properly social.

So, if I learn a set of *symbolical gestures* to interact with the game world, in the Metaverse, on the contrary, my body is a *direct* means of expressing my feelings, opinions, and intentions. In this particular framework, symbolism would seriously contravene any expression and interaction with others—in short, having to enter a sequence of inputs to signify joy makes no sense—better still, joy is not a sufficiently precise and nuanced feeling to express anything: smileys from this point of view, in classical social networks, represent a form of *objective* stone age to the expression of feelings and may even lead to a fear of a collapse of the emotional richness that a subject can express.

It is, therefore, clear to what extent the subject's *body*, its *social presence,* is becoming central to the development of interfaces and user experiences. And with them, the progress of the technologies of capture (facial cameras, etc.), which make my body *present for the other*. Reciprocally, the body of my interlocutor, present as an avatar, becomes a determining vector of my experience. I see them looking in such and such a direction; I perceive such and such a nuance of meaning in their emotional state, in their thoughts. In short, I enter into *communication* with them because the Metaverse is as much the heir of the video game as of the communication technologies that emerged in the 19th century with the electric telegraph:

"Da5id notices Hiro, indicates with a flick of his eyes that this is not a good time. Normally, such subtle gestures are lost in the system's noise, but Da5id has a very good personal computer, and Juanita helped design his avatar—so the message comes through like a shot fired into the ceiling. Hiro turns away, saunters around the big circular bar in a slow orbit."[25]

Because it is built to replicate my expressions perfectly, the avatar becomes the extension, in the Metaverse, of my presence in the world. And in this sense, it is a relationship of *quasi-identity* that is inaugurated, in which I literally lend it my body at the same time as it lends me a virtual spatial presence. Thus, Hiro, the protagonist of *Snow Crash*, an African American, can be brought back to his skin color even in the Metaverse:

24 And if I interact with another, I either interact with another *player* or I don't play anymore.

25 N. Stephenson: *Snow Crash*, p. 74.

"'Please excuse me if I have misinterpreted your story,' the businessman says, 'but I was under the impression that men of your race were not allowed to fight during that war.' 'Your impression is correct,' Hiro says. 'My father was a truck driver.'"[26]

Of course, the transformation, the customization of our avatar will be possible in the Metaverse and may even become an important cosmetic element in its economy (via the use of NFTs, for example). But the *serious uses* of the Metaverse will require adjustments to allow individuals to interact in the most transparent way possible in order to optimize and naturalize social relations as much as possible. Thus, the *Snow Crash* Metaverse:

"Shortly after Juanita and Da5id got divorced, The Black Sun really took off. And once they got done counting their money […] they all came to the realization that what made this place a success was not the collision-avoidance algorithms or the bouncer daemons […]. It was Juanita's faces. Just ask the businessmen in the Nipponese Quadrant. They come here to talk turkey with suits from around the world, and they consider it just as good as a face-to-face […] They pay attention to the facial expressions and body language of the people they are talking to. And that's how they know what's going on inside a person's head—by condensing fact from the vapor of nuance."[27]

If the Metaverse is different from a game, it is by the priority it gives to social space-time over playful space-time. And this slight detail has profound consequences on the lives of users.

26 Ibid., p. 99.

27 Ibid., p. 73.

N. W. E.[28]

> The coffee-pot had undergone the least change; as a matter of fact, in one respect it had improved—it lacked the coin slot, operating obviously toll-free. This aspect was true of all the appliances, he realized. All that remained, anyhow. Like the homeopape machine, the garbage-disposal unit had entirely vanished. He tried to remember what other appliances he had owned, but already memory had become vague... He gave up and returned to the living-room.
> PHILIP K. DICK[29]

How has the above archaeological analysis been able to shed light on the nature of the Metaverse? It seems that the guiding theme we have followed, that of the body in its relationship to the virtual, has allowed us to make the Metaverse explicit not only as a *software* reality but also as a *general logic.*[30]

Substructure of Super-Presence

If, in certain respects, the Metaverse seems to be a *serious game* because of the priority it gives to the social over the ludic[31]—it is because it does something that no game can do: it exceeds the categories of play and seriousness, of *otium* and *negotium*, to make them co-exist in a unified virtual space. This unification is at the heart of the ambition of the Metaverse. It betrays the underlying logic of breaking down categories and borders between beings to bring them together in one and the same 'place': that of the virtual. In fact, the Metaverse aims not *only* to replace the web but to become, in the long run, the privileged, if not exclusive, modality of relationship to the Internet. It is through the Metaverse that we will be able to

28 Near World Experience.

29 P. K. Dick: *Ubik,* p. 136. Here, the world's configuration alters the subject's consciousness and habitus.

30 A logic that might apply even outside or before a fully operational Metaverse.

31 The final motorbike chase in the *Snow Crash* Metaverse comes to mind, as an example of gamification of social antagonism and struggle—the fate of the world relying on a race.

use our email, our social networks, that we will be able to play and potentially debate, work, share, create, etc.[32]

In fact, this logic of totalization and encompassing of human activities is etymologically found in the very term *meta-universe*, meaning the omni-overlapping and *ubiquitous* dimension of reality. Each Metaverse thus conceals a potential for the global rationalization of life, even in its interstices. It rests on two deeply linked levers, serving as a structural sub-base.

First, *knowledge, or capture logic,* which is elaborated on the totality of the capture technologies that the Metaverse implements to allow access to its universes. The peripherals of natural use are all technologies of capture that collect data. This data is no longer personal but *intimate*. In fact, it will no longer make sense to refuse cookies when connecting to the Metaverse: the very fact of putting on a *Meta Quest Pro* or *HoloLens II* reveals fundamental psychophysical data about individuals[33] as well as the quality of their equipment. In *Snow Crash,* access to the Metaverse is thus guaranteed by public terminals that exploit the users' body information:

"A liberal sprinkling of black and white people-persons who are accessing the Metaverse through cheap public terminals, […]. There's one [...] who stands out because he is taller than the rest. The Street protocol states that your avatar can't be any taller than you are. [...] It just shows him the way he is, except not as well."[34]

Strikingly, this logic of capture corresponds to a phenomenon of *virtualization* of objects and beings to produce their 'digital twins.'[35]

Second, this complex of knowledge is correlated with a *power*: that of designing spaces, software architectures, and products based on the knowledge thus collected. This determines the direction of technological progress in terms of the ac-

32 Each unique Metaverse may have its special features and core activities. But the question is what fundamental modality governs access to the networks, and what is the relationship between them.

33 Data unknown to themselves, on two levels: firstly, because they do not have access to this information about their own person; secondly, because they do not know what types of data are relevant to be collected, and therefore do not know that they are being collected. Personal data becomes *intimate data*. The specular analysis applies, in a very disturbing way.

34 N. Stephenson: *Snow Crash,* p. 48.

35 A logic of maniacal safeguarding of the world.

cessibility and democratization of access tools. At the same time, however, it creates an ontological divide between the knowers and the users. This idea of democratization hides the "confiscation of the means of production" by those who own the network infrastructures and the source codes.[36] Users, because of their natural gestures, are unable to *actually* access the code. The naturalized gesture is, in fact, the ever-increasing enclosure of the machine from the user. The NUI, it should be remembered, replaces the LUI (learned user interface), which implied learning and, therefore, a relationship of knowledge with the machine. This relationship, to be less carnal, less intimate, allowed the subject to keep a certain amount of control over their data and their uses.[37] This logic of power is, therefore, fundamentally correlated with a logic of *naturalizing* interfaces, designs, and software architectures—so as to make them *closer to us* while at the same time cleverly distancing them from our possibilities of experimentation and expression.

This dialectic between knowledge and power, between the virtualization of the world and the naturalization of the virtual, forms a *nexus of knowledge and power.* The knowledge of subjects—as intimate as possible—allows for their governance—as efficient and invisible as possible. It is this nexus that determines, according to Michel Foucault, the level of *acceptability* of a form of governance of subjects. With the Metaverse, governance, invisible and ubiquitous, is embodied in the techno-corporeal organs that the subjects are themselves. It becomes participatory (interactive) and voluntarist (fun).[38]

The Making of Everyday Life

But what is the difference compared to the classic social network? How does this Nexus come to concretely impact the lives of subjects and their presence in the world? Is this participatory occultation of power not the other name for the dem-

36 A theme dear to Marxists, here in its version 3.0. Cf. Marx, Karl. *Wage Labour and Capital* Followed by *Wages, Price and Profit*. Paris: Foreign languages press, 2020.

37 The evolution of Microsoft's Windows interfaces is a striking example of this, since the natural interface actually corresponds to an *absenteeism* of the interface and a concealment of everything that makes up the architecture of the machine.

38 For a definition of the Nexus, cf. Foucault, Michel: "What is Critique?," in: Sylvere Lotringer (ed.): *The Politics of Truth*, trans. Lysa Hochroth/Catherine Porter, Los Angeles, CA: Semiotext(e) 2007, p. 61.

ocratic significance of technology? Doesn't Meta help Western democracies organize elections and, perhaps in the long term, host them in order to become truly the new agora of the free world?[39]

The question is quirky. The knowledge-power nexus described above exposes the power structures that govern the relationship between institutions and subjects. Thus, by elaborating their own *social spaces of interactional possibilities*, industrialists institutionalize themselves and set themselves up as Meta-States with the power to legislate and regulate the virtual territories they own ... And thus, the bodies that *live* within them. This *biopower*[40] punctuates the daily life of individuals and all their activities (their yoga, their work, etc.) and is thus *impregnated* into the bodies on two levels:

- First, by regulating, through design, the way they interact with the virtual world and other users, thus inscribing 'healthy' virtual practices within the interactional possibilities. In the same way that the number of characters allowed in an X (formerly Twitter) message shapes the way we communicate online, the design of the 3Cs and interactions will shape virtual bodies. This is the regulatory emergence of a new persistent *virtual virtue.*

- But also by regulating, as a consequence, how they interact with *their own flesh bodies*—in a way never seen before on social networks. The naturalization of interfaces coupled with technologies for exposing bodies inaugurate the design and production of our bodies of flesh—*from the virtual*. In fact, by designing such and such an interaction, by making such and such a movement possible or impossible, designers apply to the body a gestural constraint that descends into the subjects' daily life until it settles inside them. *These meta-versal habits*, as we already observe in esports players, for example, shape the bodies. They stem directly from the *configuration of* the habitat—the Metaverse—on the user. Now, this configuration, conceived from intimate data, creates a Gordian knot in which the

39 Meta: "Comment Meta se prépare aux élections françaises de 2022," *FB*, February 16, 2022, https://about.fb.com/fr/news/2022/02/comment-meta-se-prepare-aux-elections-francaises-de-2022/

40 With this concept, Foucault refers to a form of governmentality that governs the very life of the population. With the Metaverse and the induced technologies, this type of power is potentially more integrated and ubiquitous than ever.

subject's body plays perversely against itself[41] ... Each personalization, each habit of life acquired through the interoperability[42] of metaversal systems, paradoxically accentuates the standardization of bodies and their modes of presence in the Metaverse—and in the world.

CODA: TIME-SPACE OSCILLATIONS

> The diversity of cars impressed him. Many years represented, many makes and many models. The fact that they mostly came in black could not be laid at Jory's door: this detail was authentic. [...] *This is perhaps the first time he has created a world this diverse, for so many people at once. It isn't usual for so many half-lifers to be interwired. We have put an abnormal strain on Jory*, he said to himself. *And we paid for it*.
> PHILIP K. DICK.[43]

The question we can ask ourselves at the end of these reflections is what the Metaverse *radically* changes in relation to contemporary problems linked to digital technologies. In what way does the notion of presence enlighten us more than the reflections previously elaborated by the notions of attention, addiction, or surveillance? [44]

The phenomenological approach to presence allows us to think about the reversibility of the concept. If, at first, we tried to circumscribe the presence of the subject to the virtual world, it became clear that the *ubiquity* of the network was a new form of presence: no longer *carried out* by the users but *undergone* by them, through the totality of the solicitations and implicit injunctions which permeate

41 The design of addictions and meta-drugs would be a fascinating subject of study in this respect. Especially to build corporeal countermeasures.

42 The software possibility for a user to use various systems together, and thus to move freely from one Metaverse to another—it implies that the different operating systems engage in similar practices that are easily assimilated. Thus forming a *large metaversal body* defined by the possible interactions, by the same gestuality.

43 P. K. Dick: *Ubik*, p. 212. The Material Debt to the Virtual—the Reality Principle.

44 Cf. for a great overview on the topic: Citton, Yves: *The Attention Economy: Capitalism's New Horizon?* Paris: La Découverte 2014.

their daily life. Underlying the possible crisis of attention, the super presence of the Metaverse logic appears as the actualization of an *ontological* phenomenon that operates as an eclipse: the virtual world comes into alignment with the material world and occludes it. This image, admittedly metaphorical, gives an account of the flagship technology of mixed realities (XR). Behind this term, it is actually decided to *use the world as a display* for the Metaverse and no longer the screen. The prosthesis, ever-smaller, is inserted into the body and forgotten, while the world and its collapsing material reality are hidden under the impudent veil of the variegated worlds; under the infinite and luxuriant growth of the virtual.

In a logical consequence, as the old world has been left by the adventurers of the new America, the real world, the Earth, now only raises an obscure desire to leave. The digital safeguarding (another name for virtualization) of the world becomes a way of escaping it, of saving oneself. We can thus read in the intentional *oscillation* of users who move from the real to the virtual world on a daily basis, a kind of metaphysical and civilizational hesitation. A new kind of arbitration between two promises. That of the coming of a paradise on Earth, and that of an inevitable collapse.

However, it could be that this new Eden, the implicit wish of El Dorado, is, in reality, a cover-up that is difficult to swallow—since it depends so much on the resources of the very reality that it tries so hard to conceal. And to destroy.

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