

COMMUNICOLOGY, APPARATUS, AND POST-HISTORY: VILÉM FLUSSER'S CONCEPTS APPLIED TO VIDEO GAMES AND GAMIFICATION

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Among the philosophers who undertook the task of thinking about the status of culture and the key advents of the twentieth century, the Czech-Brazilian Vilém Flusser deserves prominent recognition.

A multifaceted thinker, Flusser produced sophisticated theories about a reality in which man advances towards the game, endorsed by the emergence of a kind of technical device that is dedicated, mainly, to the calculation of possibilities and to the projection of these possibilities on reality, generating a veil that conceals the natural reality and creates layers of cultural and artificial realities.

This technical device, designated by Flusser as “apparatus”, being the index of a civilisatory stage where societies are characterised by the fact that they are programmed from discourses that point to a highly abstract shared language exposed through “technical images” which, just like Indian screens, are calculated and projected on the natural reality of the world, hiding and recreating it.

During this brief introduction, we can note the convergence between the main principles exposed by Flusser and that of the field which studies the theories concerned with video games, including the concept of gamification.

Although such connections have yet to be formally established and, in some points, the philosopher himself reaches different and opposing conclusions, the categories created by Flusser, such as apparatuses, technical images, and “projection systems”, can be found, analogously, within the field of video game studies.

To conduct part of this process, of reflecting on Flusserian theories applied to video games, is one of the objectives of this text. My current research intends to verify whether the hybrid codes of video games and their syntactical strategies, in which the concept of gamification can be positioned, are suitable for the production of scientific knowledge in a reality that I conceptualise, via Flusser (2011b), as post-historical.

This unease begins mostly from the study of *Does writing have a Future?* (Flusser 2011a), where the author questions if the western alphabetical method of linear writing is still an efficient code for the production of scientific, poetic, and philosophical knowledge, positing that nowadays we are endowed with more efficient codes than the written one.

The change from one code to another brings transformative consequences to previous models used for the production of knowledge and, more importantly, to the way we experience reality around us.

The vital object of this study is, therefore, the understanding of how these codes, particularly the video game one, change what the philosopher Martin Heidegger (1978) called “*Dasein*”, altering the way civilisation produces and accumulates knowledge. Heidegger uses the term *Dasein* to label human beings’ distinctive way of being. We might conceive of it as Heidegger’s term for the distinctive kind of entity that human beings as such are. By using the expression *Dasein*, the philosopher drew attention to the fact that a human being cannot be taken into account except as being existent in the middle of a world among other things (Warnock 1970), that *Dasein*, despite the impossibility to translate the concept, is “to be there” and “there is the world”. To be human is to be fixed, embedded, and immersed in the physical, literal, tangible day-to-day world (Steiner 1978). Hence, the present text is an incursion into philosophical concepts such as simulation, representation, and projection, which relate to the philosophy of science, ontology, and communication.

To comprehend how a video game is virtually a suitable apparatus for the likely occurrence of this large-scale change in codes of communication

requires, firstly, familiarity with the structure of Flusserian thought, so that his theories concerning connections between apparatuses, technical images, projection, and post-history can be later related to video games and gamification strategies.

It is necessary to immediately stress the principles that guide the proposals of this text, extracted from previous reflections upon Flusser's writings that will be expanded theoretically throughout this paper. It is also important to summarise them, because Flusserian theories leading to a broad understanding of some categories of thought are not always taken into consideration in video game studies.

A video game is an artificial communicational system, which emerges from a cultural scenario where computational apparatuses have become ubiquitous. The video game, as an apparatus, is a system programmed to serve the mediation between the will of larger systems – such as a university, a state, or an industry – and a player or, under Flusserian terms, a “functionary”. These systems are dedicated to program and to project a reality on the natural world. As a computational system, the video game archives, processes, and transmits information with the objective of changing human existence in the world and making sure that a person plays symbolically, aiming to distance the player from their awareness of death, as we shall see.

In this respect, gamification is treated as a set of codes that are created from this reality, with the intention of serving as a program implemented through apparatuses seeking to change the way player-functionaries act.

This is a syntactic set that wishes to change the semantic value of human perception of reality, also ontologically changing its existence, thus achieving the status of a set of rules or laws. Flusser, who died in 1991, would probably not be interested in clarifying the concept of gamification. Yet, the author left a considerable legacy regarding the understanding of the gaming theory and the relationship between games and apparatuses.

Based on these elements, we will seek to expand the understanding of the terms beyond their status quo in the available literature, taking advantage of the fact that this is a new and fertile ground. We will seek to understand gamification as programming models that seek to change the world around us. Hence, definitions such as the ones provided by Karl Kapp may appear somewhat reductive.

For Kapp, “gamification is using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems” (2012, 10). This definition, along with others (Zichermann and Linder, 2013; Kumar and Herger, 2013), neglects some aspects that, for Flusser, are crucial in any communication process: modification of being in the world by encoding and decoding codes and the placement of an artificial, programmed, veil on the natural reality.

Lastly, apparatuses and their narrative strategies do not simulate an external reality as some authors tend to describe (Aarseth 2004, Manovich 2001). The processed operation is rather more complex, and Flusser (2011b) calls it “projection”. A projection is markedly more abstract than simulation. Simulation, for historical reasons, is nevertheless ever more present in literature than projection.

The act of simulation had an influential effect on the history of Western civilisation, mainly through the artistic activities of the Renaissance (Gombrich 2006), the cradle of modernity, and also being touted as essential in some writings of Aristotle (Reale 2005), where the Greek philosopher conceives it as having an important role for establishing public belief in artistic manifestations such as theatrical narratives, primarily through imitational techniques (Aristotle 2005).

Manovich (2001 and 2008) defines simulation as something that causes a sensation of immersion to one involved within a virtual or real environment. The main question, however, is regarding the fact that Manovich makes assumptions based on the Renaissance’s model. When he speaks about computer simulations, he assumes that an apparatus is, still, a window to the external, real, world. Even his concept of image as an interface is based on schemes to control a simulacrum of the objective world, not to create new realities.

What happens in contemporaneity, in Flusser’s understanding, is a projection of extremely abstract points calculated within the apparatuses, creating a reality that encompasses the objective and natural world. These points project the Cartesian “thinking thing” on monitors, and “such projections are indistinguishable, as suspected, from the ‘things of the world’”, as Flusser explains in a letter to Milton Vargas (Flusser 1987, 1). Projections and the world become enmeshed as one thing only.

Flusser, in this way, adopted a position opposite to Baudrillard's, who claims that we live in the culture of simulacrum. For the French thinker, simulation is a "psychosomatic disease, where the patient's pains are quite real and the question whether his illness is also real does not make much sense" (Baudrillard in Bauman 1997, 102). Flusser, unlike Baudrillard, does not adopt an apocalyptic view in relation to the emergence of apparatuses and technical images in contemporary society.

These artificial projections do not simulate reality at all and would never be able to do so, since they are already five degrees of distance from reality, on a scale that Flusser calls a "ladder of abstraction" (figure 1). Any attempt to simulate reality is a frustrated one, semiotically, because the current indexes do not hold any relation to concrete signs. Current indexes are pure projected abstractions that point to the apparatus' interior.

That is the reason why apparatuses such as video games project to the exterior realities that were calculated within it, creating, or at least trying to create, new artificial realities that hide and become symbiotic with the natural world without simulating it. Any attempt at simulation results in the projection of a new reality.

Using different terms, Michael Foucault (2002, 18) had already observed this phenomenon under his archaeology of the human sciences, where he states that a free representation does not answer to facts outside itself, not simulating anything external to it but projecting itself on the world as a reality that envelops it.

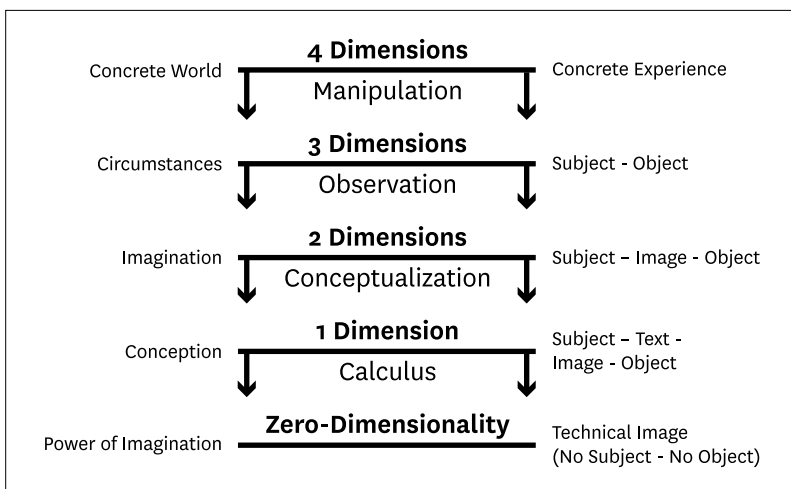


Figure 1: The Flusserian Ladder of Abstraction.

Starting from the concrete world, there follows a negative sequence of abstraction where one reaches a peak, represented by dimensionless calculations and unrelated to the importance of the actual experience. At this step, there are apparatuses dedicated to the calculation of programmed possibilities, such as video games, which project new realities on the natural world.

1 AN INTRODUCTION TO THE THOUGHT OF FLUSSER AND THE CONCEPTS OF COMMUNICOLOGY, APPARATUS, TECHNICAL IMAGE, AND POST-HISTORY

Despite Flusser's vast intellectual output, we shall focus on the most important part to our analysis, namely the field designated by him as "communicology", where the author discusses questions concerned with human communication and language. It is in this field that we find his theories of apparatuses, technical images, and the projection system on reality, all of which are used as arguments that question the validity and role of the written word as the producer of knowledge.

It is important to note that Flusser's communicology changed over the course of his intellectual development. First, communicology was seen as a general theory of humanities (*geisteswissenschaften*), which subsequently was reformulated as a rather broad discipline, positioned in an intermediary

field and established on the foundations of humanities and natural sciences (*naturwissenschaften*). Consequentially, this transformation causes a change in his methods, resulting in the incorporation of newer analytical categories, such as the introduction of numbers and concepts of calculus and computation.

For that reason, communicology is a suitable set of theories to be applied to contemporary phenomena such as the discourse presented by video games that, in Flusserian theory, project on reality the results of complex programmed numerical calculations computed by apparatuses.

Unlike other theorists, Flusser's method takes into account not only the punctual changes brought about by these new discourses but also rethinks the way we see apparatuses such as video games, since a change in the communicational method and codes results, necessarily, in a change in the way humans place themselves in the world.

We can define apparatuses as "products of applied scientific texts" (Flusser 2000, 14). Its products, technical images, can be defined as "images produced by apparatuses" (*ibid.*). These definitions, however simple, hide important consequences. We are dealing with a new type of image here:

[...] in the case of technical images one is dealing with the indirect products of scientific texts. This gives them, historically and ontologically, a position that is different from that of traditional images. Historically, traditional images precede texts by millennia and technical ones follow on after very advanced texts. Ontologically, traditional images are abstractions of the first order insofar as they abstract from the concrete world while technical images are abstractions of the third order: They abstract from texts which abstract from traditional images which themselves abstract from the concrete world. Historically, traditional images are prehistoric and technical ones "post-historic" [...]. Ontologically, traditional images signify phenomena whereas technical images signify concepts. (*Ibid.*)

Regarding post-history, we could say that:

It is concerned with a cultural revolution whose scope and implications we are just beginning to suspect [...]. When images supplant texts, we experience, perceive, and value the world and ourselves differently [...].

And our behaviour changes: it is no longer dramatic but embedded in fields of relationships [. . .] Linear texts have only occupied their dominant position as bearers of critically important information for about four thousand years. Only that time, then, can be called 'history' in the exact sense of the word [. . .] Technical images rely on texts from which they have come and, in fact, are not surfaces but mosaics assembled from particles. (Flusser 2011b, 5)

Thus, a human that plays with apparatuses occupies, ontologically, a different position from the human that does not play. Playing video games is analogous to occupying a post-historical position, as the player now deals with applied scientific concepts, and no longer with the concrete, natural, world. The human panorama is changing, shifting from a procedural behaviour, based on a cause and effect model, to a contextual model of existence, where what we call reality is constantly recalculated by modifications in the context surrounding the player, the one who deals with apparatuses and is embedded in a game composed by mosaics made from scattered particles linked by non-causal relations.

The cultural rearrangement described leads to remarkable modifications in human existence. Flusser points to the fact that communication is always an artificial phenomenon, which aims to be a tool in humanity's struggle against death (ibid.). Adopting a phenomenological method, the artificiality of existence, of *Dasein*, is presented by him as two different perspectives: an internal, subjective one; and an external, objective one.

We should note that existence is linked to communication. In order to exist, humans need to communicate. Video games and its codes function as sophisticated communicational mechanisms that project realities calculated from its interior into the world and, consequentially, alter human existence in its deepest philosophical meaning. Video games are contemporary strategies against death since mankind, according to Flusser, is conscious of its own mortality and that banishes us to a solitary existence (ibid.).

It is in this way that codes, as artificial systems, envelop natural objects, by imposing artificial forms on natural matter, in order to archive acquired information. For Flusser, it is when man becomes aware of the finitude of his

experience in the world that he begins projecting an alternative reality, since in his inner self the dream of immortality always remains (ibid.).

From an existential point of view, communicology assumes that every human communication process is an immune and artificial system, built in order to distract us from the acknowledgement of our own mortality. Seen as such, technical images are one of the main antibodies against death, built in order to distract humans from their mortality and working more sophisticatedly and abstractedly than previous codes.

1.1 Functionaries and Freedom

The investigation of human communication methods requires an understanding of cultural historicity, taking into account the various communicational codes currently stacked in layers. Flusser's analysis (2000, 2011a) begins with oral codes, with traditional images – such as petroglyphs – and with texts until it reaches, finally, images produced by apparatuses, produced by a new communicational code, which succeeds texts and inaugurates, as described above, post-history: an age where the process of codification is transferred to outside the body, into the interior of the technical or social apparatus.

The transfer of the codifying capacity to a foreign agent creates a bond of connection between technology and human beings that, according to Flusser (2000), is shown in the figure of the apparatus-functionary complex, which forms a union that cannot be considered separately.

The concept of apparatus-functionary is essential to understand the current cultural situation, since it has reconfigured the relationship between mankind and technology. Flusser defines the functionary as being someone who plays with the apparatus but does not understand how its programming is done and thus cannot have any kind of critical insight into its processes. What remains to the functionary is only to act according to the apparatus.

Historically, the relationship between man and technology occurs in two distinct ways: sometimes technology works for man, sometimes man works for technology (ibid.).

Before the Industrial Revolution, the transformation of nature into culture was executed mainly via technical instruments called tools. In the Renaissance period, at any shoemaker's workshop the production's value

resided in the hands of the artisan. The shoemaker's tools were simply variables in his work, working for him. With the industrial revolution and its mechanisation of production, this relation is inverted and man becomes the variable, that is to say, an external agent in a system regulated by machines.

In our first example, the tool is an instrument for freedom while in the second the machine is a mechanism for imprisonment. The novelty of our current situation is the apparent equilibrium between man and technology, when both are merged in unison.

The apparatus is not an instrument, let alone a machine, but rather its synthesis. The machines' trapping annuls the freedom characteristic of the instrument, which in the apparatus is manifested as a phenomenon of thirdness through which both apparatus and functionary are mutually conditioned.

In the case of video games, this mutual conditioning stems from the actualisation of potentialities contained within the programming codes and through the process of interaction between the player and the technical discourse contained in the apparatus.

Murray's definition (1997, 126) regarding agency as "the satisfying power to take meaningful action and see the results of our decisions and choices" is intimately related to the freedom described above. Freedom, in the case of video games, is contained in the symbiosis between apparatus and player-functionary. The player is free to take action to reach desired results as long as these actions are codified in the interior of the apparatus.

The matter of the fact is, in order not to frustrate the player, the apparatuses are programmed in such a way that they are presented as systems capable of projecting infinite possibilities, giving the player the impression that his actions are essentially free. Apparatuses are instruments programmed to codify certain abstract technical concepts into images. The relation between player and system occurs in the agency described above, in Murray's terms, but it can be described better under Flusserian terms in the diagram shown in figure 2.

Technical Text ↔ Apparatus - Functionary ↔ Technical Image

Figure 2: The Relation Between Apparatus and Functionary

A technical text, programmed in the apparatus' interior, virtually contains all the possibilities – alternatives for the player's action – that the system allows. These alternatives, when incited by the player's interaction with the apparatus, are calculated and projected in the form of technical images. The conclusion that Flusser reaches concerning this relationship is that "freedom is playing against the apparatus" (2000, 80).

1.2 Matter, Form, and Probability

It should be borne in mind that technical texts, best represented by computer programming languages and abstract scientific discourse, are articulated through calculations performed in the interior of apparatuses, being the technical images composed of a series of points that, when grouped, appear superficially as an image. They are, therefore, mosaic-like structures. The points composing the mosaic are so small that, in order to be perceived as meaningful forms (*gestalten*), they need apparatuses that compute and calculate them into a group of images.

With this, the concept of information gains importance, perceived in its probabilistic meaning as an unlikely situation. Communication processes begin to be thought of as a game of probabilities and alternative universes projected via the new images produced by apparatuses. These processes are paths to freedom opened through the arising of unexpected situations.

It is this process that the ladder of abstraction (figure 1) describes, according to Flusser (2011b, 6):

First rung: Animals and "primitive" people are immersed in an animate world, a four-dimensional space-time continuum of animals and primitive people. It is the level of concrete experience.

Second rung: The kinds of human beings that preceded us (approximately two million to forty thousand years ago) stood as subjects facing an objective situation, a three-dimensional situation comprising graspable objects. This is the level of grasping and shaping, characterised by objects such as stone blades and carved figures.

Third rung: *Homo sapiens sapiens* slipped into an imaginary, two-dimensional mediation zone between itself and its environment. This is the

level of observations and imagining characterised by traditional pictures such as cave paintings.

Fourth rung: About four thousand years ago, another mediation zone, that of linear texts, was introduced between human beings and their images, a zone to which human beings henceforth owe most of their insights. This is the level of understanding and explanation, the historical level. Linear texts, such as the *Odyssey* (Homer, around 800 BC) and the Bible, are at this level.

Fifth rung: Texts have recently shown themselves to be inaccessible. They don't permit any further pictorial mediation. They have become unclear. They collapse into particles that must be gathered up. This is the level of calculation and computation, the level of technical images.

This is a negative ladder that can also be interpreted as the increasing alienation of existence through artificialisation or as the passage of material culture into the immaterial one, where calculations simulate nothing because they are simply methods to design the zero-dimensional space consisting of scattered points that are united when calculated and projected.

Flusser considers the basis of matter as being an aggregate of aggregates and stuff (*stoff*), a textile. The material world resembles the logic of a Russian doll, in which the starting point of matter is the concrete that can be apprehended by sense, to the extent that thought deepens, matter tends to become increasingly more abstract, less tangible, until effectively disappearing into nothingness, into immateriality.

In this perspective, form appears as an intermediate state of matter (Flusser 2007). At the level of maximum reduction of scale, we reach the zero-dimensionality and there we find only points. In this fluid and ephemeral universe, comprised of relations contaminated with uncertainties, probability calculation appears as the only suitable analytical method.

The fundamental issue regarding this scenario is the dynamics of the shaping of matter, because points are not merely denial, but also locations in potential, that is, potentialities. In the case of theory – science – the issue is the deepening in the direction of more abstract and negative levels creates holes ever more dilated in the fabric of reality; whereas, practice – technique and technology – targets the emergence towards superficiality, that occurs through the projection of probabilities calculation, towards levels ever more concrete and positive, by the filling of holes opened by theory.

Flusser suggests that the post-historical poetic should not begin at the horizons of the real and the fictional but from concepts of abstract and concrete, since the closer and more improbable are the connectedness of points, the denser and more “real” becomes the “sensation” of matter and of image. From this, we could say that the “old real world”, objective and represented by the first degree of Flusser’s ladder, is devoured by the emergent alternative and projective world, that shapes the universe of technical images.

Flusser expands this idea in the following terms:

The production of technical images occurs in a field of possibilities: in and of themselves, the particles are nothing but possibilities, from which something accidentally emerges. “Possibility” is, in other words, the stuff of the universe and the consciousness that is emerging. “We are such stuff as dreams are made on.” The two horizons of the possible are “inevitable” and “impossible”; in the direction of the inevitable, the possible becomes probable; in the impossible direction, it becomes improbable. So the basis for the emerging universe and emerging consciousness is the calculation of probability. From now on, concepts such as “true” and “false” refer only to unattainable horizons, bringing a revolution not only in the field of epistemology but also in those of ontology, ethics and aesthetics. (Flusser 2011b, 16)

2 VIDEO GAMES, PLAYER, AND POSSIBILITIES

Considering the questions previously discussed, we can observe that video games represent, par excellence, the post-historical era, since they allow a broad hybridisation of cultural codes through the uses of synthetic images and sounds as mediating mechanisms, as well as the inclusion of the player’s body as part of the discourse construction process.

Video games are complex representatives of both the game of calculation and the projections processed within the apparatuses and envisaged by Flusser (2011a) as being a real post-historical code. Besides, the methods of production and access to video games’ language happen in a non-sequential fashion, as an open hierarchy, in such a way that they present the potential to fulfil, if properly programmed, Flusser’s forecast of “future correspondence, science, politics, poetry, and philosophy will be pursued more effectively

through the use of these codes than through the alphabet or Arabic numerals” (Flusser 2011b, 3).

In order to produce codes employing the characteristics of post-history, it is necessary to think about post-historical methods that comprehend the phenomena calculated by apparatuses, bearing in mind that the player, ontologically, is modified by the possibilities given by the interior of the apparatuses. His or her being is altered by the projection of a programmed reality.

We should rethink some categories, if we want to examine our culture and more specifically the ideas presented here: the dialogues between post-historical codes and players.

The relationship between player and game begins with the fact that video games do not wish to change the world. As post-historical discourses, they intend to modify human life, since apparatuses do not work, do not take objects from nature, and do not inform them, as instruments and machines do. Apparatuses do not act in the natural world but in the artificial veil that conceals nature, called culture (Flusser 2000).

Although players do not work, they act in the production, handling, and storage of symbols that result in messages whose destiny is to inform culture and other players through their contemplation and analysis. Currently the activity of producing, storing, and manipulating symbols, which is not work but play, is performed through the mediation of apparatuses.

As observed, one of the key characteristics of the apparatuses is the fact that they are programmed. The projections are previously typed within their own boxes. The player who explores a digital game realises some of the possibilities inscribed inside it and obtains the outcome of possible calculations. For a game to be interesting, the number of potentialities should be great but, nonetheless, it is always limited, as it is the sum of all possible interactions made by the player.

Each performed interaction decreases the number of potentialities, of original calculations, and increases the number of projections. The game is ending and at the same time making itself a reality.

For Flusser, the player acts on behalf of the exhaustion of the game and to support the achievement of the universe of the game (*ibid.*). Or, in other words, the player seeks to modify himself through the playful activity of projecting a reality on the natural world. However, as games become richer, the player strives to discover ignored potentialities. The player manipulates

the game, attempting to look into and through it, trying to discover ever-new possibilities.

In touch with the game, the player's interest is focused on the apparatus and the outside world matters only in terms of the programme, since the complex game-apparatus is more concrete than reality. There is no effort to change the world, as the player just obliges the game to reveal its potential.

For that, apparatuses are playthings, and not instruments in the traditional sense. The player does not play with his or her playthings but rather against them. The player attempts to exhaust the programme. Unlike manual workers surrounded by their tools and industrial workers standing next to their machines, players are inside their apparatuses and bound up with them. Yet, "this is a new kind of function in which human beings and apparatus merge into a unity" (ibid., 27).

In their attempt to exhaust the programme, the player fulfils the holes made by the scientific program in the fabric of matter and brings forth, via the act of playing, realities created by the improbable grouping of possibilities contained within the apparatus. While playing, the player reverses the ladder of abstraction and goes from abstraction to projected concreteness.

The activity of projecting games is defined as codifying the theoretical abstract possibilities within the apparatus, taking into consideration the practical act of the player, who calculates such opportunities, returning to the world certain concreteness. The imaginary world merges with the projected one during the act of playing, moved by the imagination of the player, since imagination is a "specific ability to abstract surfaces out of space and time and to project them back into space and time [...] It is the precondition for the production and decoding of images" (ibid., 8).

From the players' point of view, to imagine is to fill the gaps left by the designer, as she or he equipped the apparatus with post-historical possibilities, with her or his personal expectations and experiences. We are talking about a game perpetually refilled and exhausted. This continuous game requires a rich program in order to keep the player connected to it. Otherwise it would soon become exhausted, signalling the end of the game. The potentialities contained in the program must exceed the player's capacity to exhaust it. In other words: the act of the player should be only part of the act

***"Man plays only when he is
in the full sense of the word
a man, and he is only wholly
Man when he is playing."***

– Friedrich Schiller

of the apparatus, in such a way that the program should be impermissible to the player in its totality.

A rich and deep game does not need to be structurally complex but should, instead, be functionally complex. Structurally complex systems can be functionally simple, such as a TV box, in which internal functionality is extremely complex and impermissible but works in a stupid, almost idiotic, manner. The games that challenge creative thought have complex functions despite being structurally simple. Chess (3rd – 6th century AD) is a good example. Tetris (1984) is another one. Both games have simple structures but are, nevertheless, functionally complex, since they hold immense possibilities and are virtually impossible to be exhausted by the player, who is lost in the hidden possibilities allowed by the functionality of the program.

The player cannot ever comprehend functionally complex systems, with virtually infinite possibilities of calculus. That is to say, players cannot exhaust all their possibilities. These programs operate through interchangeable symbols, sets of rules that govern their calculations and that are activated by the players. To work, within the framework of apparatuses, is nothing more than swapping programmed symbols.

It is in this movement of exchange of programmed symbols that lays the aspect of the game in apparatuses. What video games do is to uninterruptedly exchange their rules on the agency of players. Prior to agency, however, it is necessary to codify the rules of permutation subject to calculation.

Flusser affirms that there are apparatuses, such as video games, which can inform and create objects via dynamic projections, calculated in real time. The symbols permuted by these apparatuses are in constant movement, altering the form of the world in an uninterrupted fashion. The game of symbolic permutation envelops the player in such a way that the symbiosis between player and game is fulfilled. The player is emancipated from any kind of work and is free to play. “The tool side of the apparatus is ‘done with’ and the human being is now only engaged with the play side of the apparatus” (ibid., 29).

There is a broad modification of historical values that become meaningless in this process, since what becomes valid is not the apparatus itself, the hardware, but the set of rules, e.g. the software:

One can see from the softest of the apparatus, e.g. political apparatus, what is characteristic of the whole of post-historical society: It is not those who own the hard object who have something of value at their disposal but those who control its soft program. The soft symbol, not the hard object, is valuable: a revaluation of all values. (Ibid., 30)

Hence, it is the soft, immaterial, abstract, syntactic aspect of game that defines the game of power in post-history that, on the other hand, is held by whoever programs the apparatuses. The game of using symbols is now a hierarchical power game, marking the transition from the industrial era to the current information society and post-industrial imperialism. This shift is linked to the definition of the term apparatus, a complex plaything that doesn't completely reveal itself to those who play against it. Its game is made of uncountable combinations of symbols contained in the interior of its program. Like Ouroboros, the Greek tail-devouring snake, the programs inside the apparatuses were installed by metaprograms and the game results in further programs.

As a symbolic game, the apparatuses surpass machines and are closer to man and, especially, to our intellect. Machines substituted manual labour. Apparatuses projected new mental realities. For that reason, designers and programmers occupy a rather high position in the hierarchy of post-historical societies, since it is up to them to program the possible actions of the apparatuses' games.

With apparatuses, we are dealing with thinking expressed in numbers, as all apparatuses are calculating machines and, in this sense, artificial intelligences. Thinking in numbers overrides linear, historical thinking and allows the overcoming of the Cartesian way of thinking, as since René Descartes we have been subordinating thinking in letters to thinking in numbers. For Flusser, this changes our perception of reality, as only numbers are suited to a process of "bringing thinking matter into line with extended matter" (ibid, 30).

3 GAMIFICATION AND POST-HISTORY

As functionaries of an apparatus, it is clear that the players of video games change, via the agency that they exert over the game, the written possibilities contained and programmed within apparatuses, and their actions

consequently project technical images on the world. The act of playing alters the being of the players in their exchange of the symbols with the apparatus. Since any communicational system is artificial and, as such, exists only and solely with the function of distracting mankind from death's certainty, all communication processes are, above all, existential (*ibid.*).

From this point of view, to think about gamification is to consider it to be a group of language strategies that define the primordial points that should be calculated, with the intention of programming the freedom of players and, consequentially, their position in the world.

As we have seen at the beginning of our discussion, according to this view the concept of gamification is inseparably implicated in the soft, programmatic character of video games and post-historical society. At its most abstract level, the post-historical narrative models are all contaminated with the elements of gamification since the ludic aspect of gaming is found in all images projected over the world. Gamification, therefore, does not wish only to instruct or educate people, let alone make them collect points in fun activities. Its role should be a deeper one, as a communicational and syntactic model, altering the players in an ontological way.

Notwithstanding, the most common discourse regarding the term does not take into account this ontological change. Used extensively as a practical marketing strategy, the deeper implications of the current post-historical society are not taken into account and discourses on the concept are usually heterogeneous, pointing to a society that seems to have realised the cultural importance of playing only after the advent of the video games. Obviously this is not true.

Some definitions regarding gamification in the available literature define the term as a set of strategies to engage customers as never before, align employees, and drive innovation that seemed impossible without the advent of games as a way of reinventing commercial organisations (Zichermann and Linder 2013, xi). Others believe that the concept deals with a previously unspecified group of phenomena. This new phenomenological group would be represented by the use of game elements in non-game contexts (Deterting et al. 2011, 2).

Two arguments in line with the theories presented need to be made:

On one hand, if gamification, as a strategy, distributes throughout society elements and phenomena originated in video games or game design

elements, the concept is nothing more than evidence of the Flusserian theory regarding projections. Under this argument, gamification projects on society the calculated reality made within the video game apparatus.

There is no simulation. On the contrary, nothing is simulated but rather projected as new reality, and launched into the world as Flusser foresaw. New signs are projected on the world, originating from programs that compute new realities. There are not, as with simulation procedures, attempts to make one sign impersonate another, aiming to teach strategies, marketing or lifestyle changes. For example, the projection cannot simulate, as it is five steps below, the concrete world. I stress the necessity of new categories for the analysis of contemporaneity.

On the other hand, the current discourse regarding gamification is, somehow, fragile. Paying attention only to more academic conceptualisations of the term (Deterding 2011 et al.; Barden et al. 2013), one can see that there is a great effort on the part of academics in making this field of knowledge be dealt with by newer approaches, when there are already disciplines, such as philosophy, which have observed the issue of games for many centuries.

Video games and their products are elements immersed in culture and language, and to treat them in isolation, as if they were not part of the continuous role of games in the civilisatory process, discards important philosophical accomplishments.

Even if we place games as elements separated from play, it goes against the current scientific and multidisciplinary methods of knowledge production (cf. Kuhn 2012; Feyerabend 2010). Further discussion on this subject is, unfortunately, beyond the scope of this article (see, for example, the in-depth discussion carried out by Gadamer 2011), but it is worth mentioning, especially, a sentence from Schiller (2004 / 1795, 80): “For, to declare it once and for all, Man plays only when he is in the full sense of the word a man, and he is only wholly Man when he is playing.”

As a brief conclusion, in the light of the arguments put forth, the term gamification is undoubtedly a coherent index of the applicability of Flusserian theories, especially in regard to his radical idea of apparatuses’ projection on the reality of the world and is also consistent with a philosophical historicity linking the act of playing with every cultural manifestation.

However, I believe that the studies on gamification should take into consideration the existential field of communication processes in order to make the term further integrated within the post-historical structures such as the ones seen throughout this text.

4 CONCLUSION

I have presented a Flusserian theory concerned with the universe of video games as post-historical apparatuses. This theorisation was objectively focused at the presentation of new theoretical underpinnings to the field of game studies that, although recently created, has already some consolidated theories.

This study sought to systematise Flusserian thoughts towards video games, since the points of intersection between these apparatuses and the theories of Flusserian communicology are enormously evident. This is a huge theoretical effort, since this approach had not yet been systematically performed.

The fact that some of the concepts described above may seem overwhelming or controversial is an observation that had been made by the philosopher himself, who claimed that we are witnesses to a complete change in the cultural and civilisational landscape of proportions that are comparable with the invention of writing itself. We are witnessing the rise of a post-historical era and, hence, new categories need to be created and constantly questioned. To open these categories to discussion by a larger audience that research into video games and gamification was a key objective of this text.

Finally, this paper opens some doors that will be explored further in my current research, presenting a theoretical framework that will work to produce a game exploring post-historical codes in knowledge production, especially in the scientific one.

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