

The modes of existence of gameplay: an applied exercise with *Cities: Skylines*¹

Os modos de existência do gameplay: um exercício de aplicação com Cities: Skylines

■ SUELY FRAGOSO^a

Federal University of Rio Grande do Sul, Graduate Program in Communication and Information,
Graduate Program in Design, Porto Alegre – RS, Brazil

ABSTRACT

This text presents an application of the theories proposed by Bruno Latour in *An inquiry into modes of existence* as a key to understand gameplay, based on game situation from *Cities: Skylines*. The analysis is presented after a review of the theoretical framework and a brief presentation of the gameplay situation, highlighting the most prominent modes of existence in *Cities: Skylines*' gameplay ([FIC], [TEC] e [HAB]) and their intersections ([FIC-TEC], [FIC-HAB] and [TEC-HAB]).

Keywords: Modes of Existence, gameplay, game

RESUMO

Este texto apresenta uma aplicação de ideias propostas em *Investigação sobre os modos de existência*, de Bruno Latour, como chave de leitura do *gameplay*, tendo como base uma situação de jogo com *Cities: Skylines*. Após uma revisão dos fundamentos teóricos e uma breve apresentação da situação de jogo, a análise destaca os modos de existência mais proeminentes no *gameplay* de *Cities: Skylines* ([FIC], [TEC] e [HAB]) e seus cruzamentos ([FIC-TEC], [FIC-HAB] e [TEC-HAB]).

Palavras-chave: Modos de Existência, *gameplay*, jogo

¹Updated version of research presented in the Working Group Communication and Cyberculture, in the 26st Meeting of the National Association of Graduate Programs in Communication (Compós), São Paulo, 2017.

^aProfessor of the School of Library Science and Communication of the Federal University of Rio Grande do Sul (Fabico – UFRGS) and 1D researcher of CNPq. Orcid: <https://orcid.org/0000-0003-4690-4155>. E-mail: suelyfragoso@ufrgs.br

INTRODUCTION

THE WORD GAMEPLAY is already incorporated into the everyday vocabulary of players and game scholars in Brazil and in Portugal, and is usually used as a synonym for gaming experience. However, the concept of gameplay is still in dispute in the field of game studies², being mistaken for playability, as reported by Mello and Perani (2012). Some authors consider that the improvement of the idea of gameplay depends on the intensification of the focus on players (Salen; Zimmerman, 2004; Vannucchi; Prado, 2009), while others warn of the need for greater attention to the game itself (Sicart, 2008; Juul, 2005). In technical areas such as computing, the focus in the machines favors an integrated vision of the two poles, but at the risk of reducing the term gameplay to the circulation of information between players and technological artifacts. On the other hand, the focus on the mediation of gameplay by the artifacts can also refer to the more in-depth manner with which these associations have been addressed in the Humanities and Social Sciences, for example, by the perceptions expressed in Actor-Network Theory (ANT).

Due to its great popularity, ANT has virtually become a metonymic reference to the work of Bruno Latour. He himself, however, has always recognized the limitations of ANT and revised it several times. In recent years, his efforts have been focused on developing an applied approach, which is convergent with the idea that ANT, contrary to what the name suggests, is a method, not a theory (Callon, 2012; Latour, 2005; Law, 2007, 2012). Understanding ANT as a method resolves certain impasses, but, on the other hand, imposes new challenges. An Inquiry into Modes of Existence (AIME) addresses the most serious of those difficulties, which is loss of specificity: the main asset of ANT is to allow the transit between heterogeneous domains and elements, but that freedom of movement has its price – all networks are composed of unexpected elements, but they are all surprising in the same way (Latour, 2013: 35).

The starting point of AIME is the perception that the understanding of the world requires more complex forms of investigation than the universal regime of truth in force in modernity. It is not surprising that inconsistencies are found in such an ambitious and young project, both in the printed book and in the site of the project³. Theoretical approaches predominate among the authors who have been dedicating themselves to test the limits, identify and overcome the contradictions that remain in AIME. However, the modes of existence are application-oriented, as may be noted in the movements of the the modern anthropologist, a narrative figure which Latour uses to develop the chain of thought in AIME.

² By game studies, I refer to the line of studies addressing games as cultural products and that has undergone a remarkable expansion since the beginning of the 2000s.

³ AIME is a collaborative project, its results being available in two versions: a printed book and a website (<http://modesofexistence.org>), in which the text of the book is accompanied by a glossary, documentation and contributions from collaborators. In this text, the book is credited to Latour (2013) and the content available on the website only, to Latour et al. (2013)

The exercise that I present in this text follows that lead, because the proposal is to discuss the duration of the most prominent modes of existence in a specific course of action, gameplay. To this end, I adopt as reference a game situation with *Cities: Skylines*⁴ (CS). These are not random choices. On the one hand, they are born from the realization that the difficulties of deepening the concept of gameplay arise from the incompatibility between the gaming experience and the dualisms Modern thought bases itself on. On the other hand, they are based on the recognition of the decisive role of digital games in the recent development of game studies. In addition, interactions with digital artifacts include some of the cases in which the circularity of ANT is more obvious: regardless of which associations one chooses to follow, the heterogeneity of a digital gameplay network is so obvious that it would hardly justify an investment with the scale intended by ANT.

⁴ *Cities: Skylines* is a single player simulation game created by Colossal Order and published by Paradox Interactive, in 2015.

The application of complex concepts is always challenging and risky because they accommodate multiple interpretations. In the case of AIME, the risks are worsened by the scarcity of precedents and the inconsistencies in the reference texts. In addition, the dimensions of an article do not allow both discussing the ideas and applying them. For these reasons, I have chosen to clarify what understandings and interpretations of AIME I am basing my considerations on, using direct references to passages from the book or from the site of AIME whenever necessary.

The text is organized as follows: in the next section, I discuss the fundamentals of AIME and present the concepts deployed in the application of modes of existence to gameplay. Next, I introduce the fifteen modes of existence proposed by Latour (2013). The second part of the article corresponds to the game situation analysis, which highlights the most prominent modes of existence in the gameplay of CS.

AN INQUIRY INTO MODES OF EXISTENCE (AIME)

AIME is a proposition for overcoming dilemmas of modernity, in the form of a narrative of an anthropological exercise that mobilizes ideas of earlier works by Latour, such as *Laboratory Life* (Latour; Woolgar, 1986), *We Have Never Been Modern* (Latour, 1994) and *Reassembling the Social* (Id., 2005). The starting point is the perception that the incongruities of Modern thought result from the insistence on separating the human and non-human domains, and applying a single system of truth to both. This has dissociated the understanding of experience, creating a permanent need of choosing between raw and objectified materiality and mental representations of things. This division reverberates in the knowledge produced in modernity: on the one hand, the concrete results

D

The modes of existence of gameplay

of modern science are undeniable (in Engineering and Medicine, for example); on the other, all that is known is contaminated by human intermediation and is therefore subject to dispute. Balancing between these two possibilities, modern rationality imposes a growing separation between practice and theory.

AIME intends to rediscover the concatenation of experience through the recognition of its multiple declinations, which correspond to the modes of existence. To do this, it relies on various theoretical constructs, the first of which is ANT, that surpasses the modern separation between the domains of nature and culture, of the human and non-human. However, as I have already mentioned, this is paid for with the loss of specificity: when accommodating heterogeneity, ANT causes all networks to look alike⁵.

In an attempt to move forward in overcoming the incongruities of modern rationality, recovering the specificity lost by ANT, Latour adopts William James' radical empiricism, which he prefers to call "second empiricism" (Id., 2013: 178). The first empiricism, which has among its exponents Locke and Hume, assumes that we only have access to qualities that we can perceive with our senses. It presupposes that reason and imagination interfere on the knowledge of reality, forcing modern subjects to constantly decide on whether that which they know lies "on the side of the thing to be known, or on the side of the knowing consciousness" (Id., 2011: 305). For James, this is a false dichotomy, because the differences between bodies and minds, people and objects, are not ontological, but relational: in radical empiricism, mind and matter are aspects or structures formed by something more fundamental, that is *pure experience*. *Pure experience* is not *made of something*, it is "a *that* which is not yet any definite *what*, tho' ready to be all sorts of whats; full both of oneness and of manyness" (James, 2010, no emphasis added). It is also not static, but "flows as if shot through with adjectives and nouns and prepositions and conjunctions" (Ibid.). These links are considered key elements of facts, as relevant as names and adjectives. That is because, for radical empiricism, it is necessary to overcome "the rooted rationalist belief that experience as immediately given is all disjunction and no conjunction, and that to make one world out of this separateness, a higher unifying agency must be there" (Id., 2004). Consequently, the experience of relations between things is as direct as the experience of the things themselves. This is a central idea for AIME, as evidenced by the valorization of *prepositions* that, along with the network, compose the necessary theoretical framework for the identification of the modes of existence.

Radical empiricism reaches Latour through two authors: Whitehead and Souriau, the latter, his main reference for the idea of modes of existence⁶.

⁵ It is this specificity Latour refers to when he reports that ANT's greatest strength is its ability to delineate associations, and its weakness, the inability to differentiate the variety of connections (Latour apud Lemos, 2013: 276).

⁶ Latour also references *On the Mode of Existence of Technical Objects*, by Simondon, better known than Soriau's book. In Simondon, he praises the overcoming of the dissociation between subject and object, characteristic of modernity. However, for Latour, Simondon's relation with the idea of unit would have led him, at the end of the course, back to a single mode (Latour, 2011: 307-308).

Latour highlights that the central theme of Souriau's book are not modes of existence, but the concept of "instauration". To explain this idea, he refers to the description of the creative act of a sculptor, that pushes clay until "the statue slowly reveals itself, takes shape and comes into existence" (Latour, 2011: 98). It is the sculptor who decides what to do with the clay, but the act of creation always includes an element of surprise, a discovery. Latour cites Souriau, who says, in the name of the imaginary sculptor: "So that's what I was looking for! That's what I was meant to make!". Instauration differs from constructivism, in which the artist *makes* the statue; in instauration, he *enables* and *accommodates* it, like the mother who receives in her arms a child whom she nurtured in her womb, but whose existence has always been separate from hers.

In relation to the modes of existence, Souriau stands out for not being interested in the ways in which one can speak of something, or in how something may vary whilst remaining the same, but the modes through which something effectively becomes something else. To develop this idea, Souriau grounds himself on the factuality of relations in radical empiricism, which serves as the basis to propose a *grammar of existence*, freeing the notion of mode of the discursive character with which it is usually used.

This passage from linguistics to ontology is no stranger to Latour, who, in ANT, already talked about the need for a semiotics that could "elevate things to the dignity of texts" or "elevate texts to the ontological status of things" (Id., 1996: 10). This was the movement he performed with the concept of actant, derived from literature studies (Id., 2005: 54), for instance. The concepts of the theory of speech acts, which Latour uses in the search for ways to express the notions of true and false within each mode of existence, are subjected to a similar process.

The speech acts theory deals with the insufficiency of the modern notions of true and false in the discursive field, differentiating the utterances to which these skills can be applied from those for which they make no sense. The first group would be that of *constative* utterances, made up of descriptive phrases, such as in *this text is boring*, or reports of facts, such as in *MATRIZES magazine is published by USP*. However, not all utterances are like that: *I promise I will never read Latour again*, for example, is neither true nor false; even if I do not abide by that promise, the utterance merely implies that it has been made. This kind of utterance is called *performative*, because it corresponds to cases where it is clear that "to say is to do" (Austin, 1990: 21-27). However, performative utterances are not always successful. For example, anyone can say that they give a dissertation their approval, but it will only have been really approved if this has been said by a person with the necessary authority (the president

D

The modes of existence of gameplay

of the board), in the right circumstances (after argumentation the *viva voce* examination) and in the correct way (with seriousness). When the necessary conditions for the action of a performative utterance are not satisfied, it will not come true, hence, the performance is unsuccessful. To define the conditions under which speech acts are successful or unsuccessful, Austin (Ibid.) chose the words *happiness* and *unhappiness*. Latour uses them to speak of the truth conditions in force in each mode of existence, to which the modern parameters of true and false also cannot be applied.

THE MODES OF EXISTENCE

In accordance with its applied character, AIME indicates strategies to identify modes of existence. Those strategies mobilize concepts that depend on the understanding of two points that are essential to its cosmology. The first is the inversion in the modern idea of a continuous universe, to which human experience assigns discontinuities. For AIME, what happens is precisely the opposite: it is human experience that traverses the discontinuities of the world, establishing continuities.

The latter concerns the issue of Being, which AIME does not address in the essentialist manner which has been predominant in Western philosophies since, at least, Aristotle's *Metaphysics*. AIME's perspective is relational: instead of focusing on the *substance* of the Being (being-while-being), it focuses on its *subsistence* (being-while-another).

With these principles in mind, one can follow the steps of the "modern anthropologist" in search of modes of existence. To find a mode, it is necessary to identify its *hiatus*, its *trajectory* and its *conditions of truth* (happiness and unhappiness), as well as the *beings* the mode establishes and the alteration these beings are subject to (Latour, 2013). Given their importance, it is important to clarify, albeit briefly, how these concepts are understood.

Hiatus: the word hiatus designates a discontinuity and, also, the action of overcoming it. The *hiatuses* vary from one mode of existence to another, characterizing them. In some passages, Latour associates *hiatus* with concepts from ANT, such as translation and mediation;

Trajectory: the trajectory encompasses the directions taken by the discontinuities (hiatuses) of a mode of existence. Latour highlights the spatial sense of the word, with which he designates the movements needed by those that exist to ensure their continuity;

Conditions of Happiness and Unhappiness: each mode of existence has its own conditions of truth. These conditions need to be identified for one to

be able to *speak well* within each mode, that is, talk about what really matters during that specific mode of existence;

Beings: the beings of each mode of existence are the contents of the trajectories and, also, the existing elements left behind by them. They do not try to stabilize themselves to acquire solidity (substance), because they are beings-while-others: they remain changing, mobilizing themselves to ensure their own continuity (subsistence);

Alteration: relates to the diversities which guarantee the subsistence of the beings of each mode of existence. Latour highlights that the word was chosen due to its scope: it encompasses several terms used by ontology to monitor the degrees in which alterations of beings were registered, such as “the virtual, the possible, non-being, contradiction, negation, alienation, possibility, transcendence and ‘*différance*’” (Latour et al., 2013).

AIME’s narrative describes how the *modern anthropologist* finds different modes of existence when noting category errors that reveal the existence of hiatuses and, consequently, of trajectories, that lead her to the beings and conditions of happiness and unhappiness of each mode of existence.

THE FIFTEEN (OR TWELVE) MODES OF EXISTENCE

AIME establishes fifteen modes of existence, organized into five groups of three. Latour argues that these modes and the way they are organized emerged empirically, and that this arrangement is bound to be broken as new modes of existence are discovered. However, virtually the same modes of existence had already appeared in a 1988 text and none of the modes proposed by the *co-researchers* of AIME’s team were accepted (Latour, 2015). A recent proposal of a ludic mode of existence, made by Lemos (2015), may prove that this rigidity is only apparent.⁷

Another puzzling regularity of AIME appears in the answers that are always proportional to the five questions for identification of the modes of existence, and in the other five for developing associations. It is possible to argue that this only reflects the fact that the modes of existence are characterized by five elements (hiatus, trajectory, beings, conditions of truth and alterations), but there are passages in which Latour uses arguments that appear to be motivated mostly by his resolution of finding answers for each question, always. An example is the characterization of the two *modes* that act as keys to all the others, relating to networks [NET] and prepositions [PRE], and double click [DC], which challenges all modes. [DC]’s purpose is to deny the existence of the hiatuses of the various modes of existence, trying to hide, stop or derail their alterations. Hence it is

⁷It is relevant to indicate that, despite having some convergences with the exercise I develop in this article, Lemos’ proposal has a different nature: the intention here is about mobilizing the principles of AIME and the fifteen modes of existence proposed by Latour. Lemos, on the other hand, identifies the need to add a 16th mode of existence, [LUD], from the perception that the ludic dimension is “one of the important dimensions of modern subjectivity” (Lemos, 2014: 5).

D

The modes of existence of gameplay

possible to say that [DC] “is not a mode but a conceptual character” (Latour et al., 2013). The difference becomes clear in the dynamics those three modes establish with all other modes of existence: “When a mode tries to ‘dominate’ another, we have category errors caused by the adoption of an inadequate preposition (PRE). When a mode tries to jump without minding the mediations, the networks (RES)⁸ are extinguished through the double click’s (DC) intervention” (Lemos, 2015: 8).

⁸Lemos uses the acronym that corresponds to the *réseau*.

The other twelve modes of existence are grouped according to their relationship with the quasi-subjects and quasi-objects. With these expressions, Latour demarcates a reversal in the direction of the relationship between subjects and objects: instead of the objects being produced by the subjects, as in modernity, for AIME the quasi-subjects are produced by the quasi-objects. These concepts were developed by Serres, who emphasizes that the quasi-object “demarcates or designates a subject that, without it, would not be a subject” (2007: 225). To explain this, he uses the image of a ball game: the stationary ball is not the same as the ball in the game, says Serres; before or after the game, the ball does not exist, because it has no function or meaning. The ball does not play with itself, the subject is the one who plays with it. On the other hand, it determines what this subject is: for example, the one who has possession of the ball is in the spotlight, they become the center of attention. In short, the action of the subject who puts it in motion demarcates the existence of the ball and the possession of the ball demarcates the subject: the quasi-objects engender, in rebound effects, implied positions of the quasi-subjects (Ibid.: 225-227).

THE FIVE GROUPS OF MODES OF EXISTENCE

The modes of existence are organized as follows: the first group encompasses the modes that precede human beings and, therefore, are indifferent to the quasi-objects and quasi-subjects: ([REP]roduction, [MET]amorphosis and [HAB]it). To apprehend them, one must overcome the challenge of opposing an “external”, natural world, which is how modern beings see it, and a symbolic world, to which they are opposed (Latour, 2013: 285). In the context of AIME, this separation does not allow the revelation of these three modes.

The second group encompasses the modes of existence that revolve around the quasi-objects, which can be manufactured ([TEC]hnic), referred to ([FIC]tion) or known ([REF]erence) (Ibid.: 289-290). In the rebound effect, characteristic of quasi-objects, these modes of existence produce quasi-subjects that become progressively human. Latour and his collaborators

leave the boundaries of AIME for a moment to compose an image that helps understand this idea, when saying that these “three modes align along a roughly sketched history of humanization [...] via the irruption of quasi-objects: technical, first of all, then fiction objects, then, much later, science”⁹ (Latour et al., 2013).

The modes of the third group, [LAW], [REL]igion and [POL]itics, should not be confused with the modern institutions of the same name. The beings of these modes encompass the quasi-subjects with the ability to express themselves and, in each of them, a way of saying, a tone, a situation is in effect: legally, religiously, politically.

The fourth group is that of the modes of existence that link the quasi-objects to the quasi-subjects: [LINK], [ORG]anization and [MOR]ality. These modes connect means and ends, which in modernity would be entangled under the concept of *economy*. Considering the being-while-another, it is impossible to identify, at any moment, who is the being and who is the other. This readdresses, through a fairly different perspective, notions such as possession or discernment.

The fifth group is organized with different criteria from the others and has the character of a toolbox. It accommodates [NET], [PRE] and [DC], which I do not consider to be modes of existence, but part of the conceptual framework of AIME: [NET] and [PRE] derive respectively from ANT and prepositional empiricism. [DC], on the other hand, works as a tensioner of all other modes, as it counterposes them to the assumptions of modern rationality.

THE MODES OF EXISTENCE OF GAMEPLAY

In the previous sections, I introduced some concepts of AIME and presented brief considerations on the modes of existence proposed by Latour (2013). In this section I will describe the game *Cities: Skylines* (CS) and in the next section I discuss its gameplay in terms of the previously presented framework, focusing on the modes of existence which are most prominent.

CS is a city simulation game which has, as main differential in relation to its predecessors¹⁰, a vocation for customization. Tools for production of content by players were made available from the first moment. This assigned a sociability factor to CS and assured the expansion of the game through the continuous inclusion of new elements created by the community (assets and mods).

The exercise presented in this paper is based on a hypothetical game experience with CS, using a wide range of assets. The game works as follows:

⁹The misalignment with the boundaries of AIME is most prominent in the direct identification of the [REF] beings with science.

¹⁰For example, the *SimCity* series, with multiple versions, the first one having been published in 1989 by Brøderbund, and the last one by Maxis, in 2013.

D

The modes of existence of gameplay

the player is given an area of a map, on which they must distribute elements that create the conditions for inhabitants (called Cims) and businesses (trade, industry, offices and services) to establish themselves (Figure 1).

The challenge is to balance the (natural and financial) resources available and the demands: the Cims do not remain in a city without the necessary infrastructure (water, sewage, electricity, public transport) or that does not provide health care, education and security in appropriate proportions. To provide all this, the player may use the funds collected through taxation, the sale of the surplus from industrial production and the income obtained with tourist attractions. The logic of the game demands the continued growth of the city, but with the increase in population, the volume of garbage and traffic becomes congested. Over time, the Cims' demands become more refined, but they do not have much tolerance for tax increases. In addition to these challenges, most players have aesthetic pretensions for their cities and add personal demands for them to be organized in a particular way, avoiding tall buildings or making replicas of real cities or parts of real cities, for example (Figure 2).



FIGURE 1 – Game screen, in the early years of a new city in *Cities: Skylines*



FIGURE 2 – Replica of a street corner in the city of Amsterdam in *Cities: Skylines*

Source: *Cities: Skylines* workshop on the platform *Steam*.

THE MODES OF EXISTENCE IN CITIES: SKYLINES

For our modern habit of conceiving experience, gameplay seems to start in the subject (player) and focus on the object (game). Seen this way, it would be the subject, with whom we identify, who defines the game, which we identify with the CS software, or with the hardware. In the terms of AIME, although we still identify with the player, we should start recognizing him/her as a quasi-subject, instituted in his/her relationship *with* the game and in relation *to* the game. The coherence of this way of thinking while considering experience is indicated by the name we give to this quasi-subject: he/she is the player, the one who plays. Likewise, one must understand the game as a quasi-object, which implies not reducing it to technical artifacts. Paraphrasing Serres (2007), CS is a game only because someone plays it and while it is being played. While stationary, the data, the devices, the interfaces and the rules are not cities, nor do they create cities. The game does not play itself and, therefore, it is not superior to the player; however, it is its rebound effect that makes someone a player.

This understanding of the game and of the player as quasi-object and quasi-subject converges with a perception that I introduced in previous works, in which gameplay consists of continuous associations with *instances of reality* that relate to the game's world, its representation in sound, image and text and the materiality of the technical artifacts and of the player's body (Fragoso, 2015). Although they do not correspond linearly to modes of existence, these instances

D

The modes of existence of gameplay

indicate paths for locating those with most prominence in gameplay. The first and second, for example, relate to [FIC].

In AIME, the term *fiction* does not mean imaginary beings in the modern sense of the word. The beings of mode of existence [FIC] are those that create worlds and are governed by the adverb *fictionally*. In these terms, one could say that *all* games fit under [FIC].

The presence of fictional beings oscillates between the material and the immaterial: neither can be disassociated from their physical media (enunciation, artifacts), nor can they be reduced to them either. Without computers, software or screens, the beings of [FIC] do not exist, but, if we focus on brute matter only, they disappear, leaving us with nothing but electricity, plastic and light. The same happens with CS: cities, and the Cims that inhabit them, do not exist without a computer and the game's software, but they do not exist only in them or through them.

The player does not entirely define the city in CS: regardless of his/her ability, he/she is never fully in control. It is also not possible to say that the city was already defined in the game's software, or that it had already been created by the game designers, because the number of choices available to the player is so great that it is as if combinations were infinite. The possible cities are dormant in CS, like the statue was dormant in Souriau's clay block; more than creating cities, CS is a game of accommodating, allowing, administrating cities. CS's gameplay is therefore a creative act, and a process of instauration. In comparison with art, it is a more didactic example, because it is an experience known to all: many have never carved, designed or composed, but all of us have played (if not today, at least in the past). This first hand experience also facilitates the understanding of the dynamics between quasi-subjects and quasi-objects, and also, the perception of the impossibility of breaking the link between game and technical artifacts.

Fictional beings depend on technique to emerge from material supports: the instauration process occurs at the [FIC-TEC] intersection. However, as [FIC] does not correspond to the modern sense of fiction, one cannot reduce what is characteristic of [TEC] to technical artifacts. [TEC] is the mode of existence of that which takes place technically, of knowledge, of re-evaluation, of adjustment. The [TEC] aspects of gameplay are not relative to the artifacts' engineering, but to the dexterity and invention that the game demands.

All stages of gameplay occur under [TEC]'s terms, because games are successions of challenges which depend on skill and creativity to be overcome. This is visible in CS's gameplay: the player tries to attend the Cims' demands, but the resources are not sufficient. He/she increases taxes, but the Cims begin to leave the city; he/she lowers taxes and the Cims return, but population growth

overloads infrastructure once again. The lack of water and electricity and the traffic jams jeopardize the quality of life and the viability of businesses, and the Cims leave the city, and so on.

This factor is even more visible in relation to the metagame and to the creation of assets and mods. By metagame¹¹ I refer to the use of knowledge and strategies that go beyond the boundaries of space and time in the “magic circle” and which are, therefore, explorations of shortcuts and adjustments specific to [TEC]. Some examples that stand out in CS include the application of professional urban planning knowledge and the exchange of information and assistance between players in forums and workshops. For some authors, such as Lundgren, Bergström and Björk (2009), the planning of the game itself and the creation of additional content are also metagame activities. The balance of the game can be changed with mods made available by Colossal Order and Paradox Interactive, such as Hard Mode or Unlimited Money, or mods created by players, such as Citizen Lifecycle Rebalanced¹².

The use of this type of resource reveals nuances relating to the conditions of happiness in the gameplay that converge with those of [TEC]: for some players, mods such as Unlimited Money are a form of cheating; for others, just an alternative to eliminate a nuisance. Among the many ways CS can be played, I use these two as an example: roughly speaking, those who play the *simulation and strategy game* prefer additional features that enhance the challenge of managing multiple variables, making it harder, or more realistic, for example. Those who are more interested in aesthetic and logical aspects that conflict with the urban model used in the game design, on the other hand, need to resort to mods that mitigate the restrictions of the original version of CS. The selection of mods happens before the beginning of the game and reflects the choice between these two ways of playing. These, as well as others, are ways of playing CS, but the rules governing the gameplay of a group of players are quite different from those of the other group.

In the classical literature of games, rules do not define the game just because they exist, but because they are non-negotiable. Caillois notes that they are “arbitrary, imperious, and valid for a time and space determined in advance” (2001: 165); hence, rules create the magic circle. Analyzing gameplay based on modes of existence highlights the fact that rules are artifacts and, as such, prone to exploitation, to being bent and deviated from, which are characteristics of [TEC]. A talented player takes advantage of the possibilities of the game and pushes them to the limit: for example, even in the vanilla¹³ version of CS, it is possible to arrange the city in such a way that the revenue continues to be positive, even if the player is gone for hours. In this way, you can leave the game running all night, adding millions to the budget while the player sleeps. There are those who reject the use of Unlimited Money, but engage in this practice, because the

¹¹This generic use of the term is common in game studies. Within the framework of Game Theory, the term usually appears without the hyphen (metagame) and designates a non-quantitative analysis technique.

¹²The first decreases the environment's and the Cims' tolerance limits, making the game more difficult; the second gives the player an infinite budget, making the game easier. Citizen Lifecycle Rebalanced changes the Cims' profile, supposedly bringing factors such as life expectancy, influence of age on choice of transport, etc, closer to reality. The mod was created by Greytail Whitefang in 2015. Available in: <<https://bit.ly/2t6yg2j>>. Access on: Feb 18, 2017.

¹³Vanilla version (or just vanilla) is the game without additional features.

D

The modes of existence of gameplay

budget only increases due to the player's skill and up to a point proportional to it. For other players, playing CS with millions that have been accumulated while the player was away from the computer, sleeping, is a form of cheating.

By definition, a cheater is one who violates the game's rules, but it is not always easy to differentiate those who play remarkably well, according to the rules, from those who violate them. In a study of players and game companies, Mia Consalvo (2007) concluded that the notion of cheating was so unstable that it was not possible to characterize the limits up to which the rules of a game would not be negotiable, or even who would establish these limits. Huizinga found it surprising that players tend to be lenient with cheaters (2000: 12), but cheating occurs under the framework of [TEC] and within its conditions of happiness: cheating means to creatively bend the rules, which demands knowledge, creation, reevaluations and constant adjustments.

The trajectory of [TEC] is ridden with shortcuts and diversions, establishing new arrangements through adaptation and ingenuity. This is what audacious players, cheaters and creators of good mods and assets do, and it is to this performance that the game community responds positively. When the conditions of happiness of [TEC] are disrupted, rejection ensues: it is what occurs when the cheater is caught red-handed, when someone publishes a mod that impairs the operation of the game or shares a plagiarized asset, for example. The contrast between the values of the player community and the objectivity of the game's definition according to its rules and the magic circle suggests the interference of [DC], which hides the hiatuses and alterations, causing deviations to seem misleading, objectionable. Thus, using AIME to analyze gameplay suggests a close proximity between the conditions of happiness of the modes of existence and the values of the player community. This does not apply to [TEC] only, especially considering that, as fictional beings rely on the [FIC-TEC] intersection, the inventiveness of [TEC] depends on the support of other modes of existence.

The validity of [TEC-HAB] is also prominent in gameplay, because the "technical folding" relates to "the delicate establishment of muscular habits that make us, through apprenticeship, competent beings endowed with a high degree of skill" (Latour, 2013: 228). This is particularly evident in the handling of the hardware interfaces, which depend on the automation of gestures even when dexterity is not a condition for success: to play CS, one does not need to be fast, or decorate combinations of commands, but the ability with the mouse¹⁴ affects performance in activities such as distribution of infrastructure and zoning.

[HAB], for habit, designates the mode in which the existing elements settle, as if their trajectory were continuous. The hiatuses in this mode of existence are hesitation and the need for pause and correction, which must be overcome,

¹⁴It is possible to play CS without touching the keyboard.

extinguished or, at least, mitigated, to ensure readiness for action. Habit does not eliminate hiatuses, only hides them: under the framework of [HAB], we know what to do and how to do it. The condition of happiness resides in remaining ready despite the automatism; unhappiness ensues when attention is scattered, compromising the response to an unexpected disruption. The importance of preserving the conditions of happiness of [HAB] for gameplay is more acute in games that require continuous or fast reactions, but, even in a game without these demands, like CS, there are circumstances in which it is possible to perceive the damage caused by the unhappiness of [HAB]: for example, when the player gets distracted during a sequence of demolitions and ends up destroying what he/she had not meant to.

As dexterity belongs to the intersection between [TEC-HAB], virtuosity belongs to [HAB-FIC], being consisted of “the possibility of chaining together effortlessly the longest, the most unlikely, the most difficult actions, by force of repetition” (Latour et al., 2013). Although the word is more commonly used in relation to arts or sports, I identify virtuosity also in the capacity of thinking and acting “fictionally”, placing ourselves, at the same time, in and out of the game. I have described this condition in previous works, in relation to television narratives and games (Fragoso, 2000, 2014). This is a case in which the interference of [HAB] is necessary because the discontinuities of [FIC] are very pronounced. Without the mitigation of habit, we would not accept the imposition of fictional beings on us, and we would reject the imagination that they offer, which is foreign to us (Latour, 2013: 240). There is, however, an optimal point, outside which the [HAB-FIC] intersection leads experience towards two types of risk: indifference and naturalization. In the first case, the beings of habit predominate over those of fiction, causing loss of interest. In CS, this can be seen, for example, in cities that have not yet occupied the entire map, but are already so developed that they do not hold more surprises; even if there is still a lot to do, there is no longer pleasure in the game.

The second risk consists in us not realizing that it is all fiction. This happens with relative ease in CS, because the simulation is based on consistent models and the number of variables is massive, which makes combinations virtually endless. During gameplay, it is easy not to pay attention to factors that reveal the artificiality of the situations encountered, such as the repeatability of the Cims’ behavior, who always prefer the shorter paths, independently of the availability of alternatives to escape the traffic jams. It also tends to go unnoticed that CS allows the player to intercede in issues that would be outside the control of managers and urban planners, or that certain situations do not reflect actual conditions. For example, the preservation of natural resources is extremely costly: in relation

D

The modes of existence of gameplay

to ecology, CS is disastrous. Urban expansion is always very destructive for the environment and, although there are mods that reduce the impact of sewage and garbage, the Cims' planet is always doomed to environmental collapse.

There are other problematic values in CS's algorithms: for example, the development of the city is governed by the transport system and not by the needs of the inhabitants, and even professionals in the area cannot create cities that escape an economic model based on consumption and on continuous growth (Williams, 2015). The mitigating factor is that players must face the consequences: for example, the game treats infrastructures such as plazas and parks as superfluous, but areas without leisure spaces are devalued. The situation is more severe when the vector's direction is reversed and CS is used as the basis for the realization of urban changes and educational projects such as *Gaming the Real World*¹⁵, which has, surprisingly, ecology as one of its focal points.

¹⁵ Available at:

<<https://bit.ly/2MteP6M>>;

<<https://bit.ly/2ybUjtf>>;

<<https://ubm.io/2MwCpEz>>.

Access on: Feb 4, 2017.

CONCLUSION

An analysis of gameplay using the modes of existence framework requires, first of all, adapting the conception of game experience that guides the exercise to AIME's principles. The positions of the player and of the game, for example, are no longer understood in terms of subject and object, as in modernity, and take the form of a relationship between quasi-subject and quasi-object. This repositioning led to the identification of gameplay as a creative act and a process of instauration. This understanding is convergent with the perception of gameplay as a continuous association between instances of reality that I have presented in earlier works. Those instances do not correspond linearly to the modes of existence, but were crucial for the identification of the most prominent modes in the gameplay of CS: [FIC], [TEC] and [HAB], and their intersections. At this point, it is worth reiterating that all modes of existence are present in all trajectories; or, in the words of Latour, that all "trajectories are consubstantial with all modes" (2013: 237). Therefore, the identification of the prominence of these three modes and their intersections does not mean that other modes of existence are not present, only that those were the ones that stood out the most in the exercise of application up to the limits of development presented here.

The effort to analyze the gameplay of CS according to AIME revealed peculiarities of these three modes of existence that seem to apply to all forms of gameplay, starting with the alteration of [FIC], which is the creation of worlds. The unstable link with the material or immaterial supports, which results from a deviation typically produced by [TEC], is also characteristic of fictional beings. The importance of this mode of existence for gameplay can only be understood

bearing in mind that, in AIME, technique does not relate to devices, but to creativity and ingenuity. The search for alternatives and the overcoming of challenges are unique to and typical of [TEC], which indicates that the validity of this mode of existence is not restricted to the gameplay of CS, but characterizes gameplay in general. The highlight of this mode appears also in the importance of its conditions of happiness, which allowed clarifying the circumstances in which the difference between thought and practice indicates the effect of [DC] on game theories. In an analysis guided by AIME, the validity of the multiple conditions of happiness accommodates the fluidity of the community's treatment of cheaters and fair players, previously identified by the literature of game studies.

The conditions of happiness of gameplay also include those of [HAB], first manifested in the [HAB-TEC] intersection, which is more prominent in the games that require quick reflexes and dexterity in the handling of interfaces, being however a condition for gameplay itself. The validity of [HAB] concerns the disappearance of hesitation, of the need for breaks and corrections, which allows the player to overcome the obstacles and ensure the continuity of the game. However, the conditions of unhappiness of [HAB] can be equally important to gameplay: excessive automatism scatters attention, leaving the player vulnerable to the next difficulty. Other aspects of unhappiness of [HAB] concern the loss of interest when the game becomes too repetitive, or too easy. Naturalization can also occur, because habit makes us able to accommodate the imagination that the beings of [FIC] offer us, but the excessive mitigation of discontinuities can lead to the confusion between what takes place fictionally and concrete experience.

ACKNOWLEDGEMENTS

The author thanks the reviewers of the *MATRIZES* magazine and the rapporteurs of the preliminary version of this article, presented in Compós, André Lemos and Elias Bittencourt, for the observations and comments that contributed to the improvement of the text. ■

REFERENCES

- AUSTIN, J. L. *Quando dizer é fazer: palavras e ação*. Porto Alegre: Artes Médicas, 1990.
- CAILLOIS, R. *Man, play and games*. Chicago: University of Illinois Press, 2001.
- CALLON, M. Society in the making: the study of technology as a tool for sociological analysis. In: BIJKER, W. E.; HUGHES, T. P.; PINCH, T. (Orgs.). *The social construction of technological systems: new directions in the*

D

The modes of existence of gameplay

- sociology and history of technology. Cambridge, MA: MIT Press, 2012. p. 77-98.
- CONSALVO, M. *Cheating: gaining advantage in videogames*. Cambridge, MA: MIT Press, 2007.
- FRAGOSO, S. Situação TV. In: MALDONADO, A. E. et al. (Orgs.). *Mídias e processos socioculturais*. São Leopoldo: Unisinos, 2000. p. 101-114.
- _____. Imersão em games narrativos. *Galáxia*, São Paulo, n. 28, p. 58-69, dez. 2014. DOI: 10.1590/1982-25542014216692
- _____. A experiência espacial dos games e outros medias: notas a partir de um modelo teórico analítico das representações do espaço. *Comunicação e Sociedade*, Braga, v. 27, p. 195-212, 2015. DOI: 10.17231/comsoc.27(2015).2097
- HUIZINGA, J. *Homo Ludens*. São Paulo: Perspectiva, 2000.
- JAMES, W. *The meaning of truth*. [S.l.]: Project Gutenberg, 2004. HTML. Available in: <<https://bit.ly/2yduau1>>. Access on: Feb 15, 2017.
- _____. *Essays in radical empiricism*. [S.l.]: Project Gutenberg, 2010. HTML. Available in: <<https://bit.ly/2JGTBJW>>. Access on: Feb 15, 2017.
- JUUL, J. *Half-real*. Cambridge, MA: MIT Press, 2005.
- LATOURE, B. *Jamais fomos modernos*. Rio de Janeiro: Editora 34, 1994.
- _____. On actor-network theory: a few clarifications plus more than a few complications. *Soziale Welt, Baden-Baden*, v. 47, p. 369-381, 1996. Available in: <<http://www.bruno-latour.fr/sites/default/files/P-67%20ACTOR-NETWORK.pdf>>. Access on: Feb 15, 2017.
- _____. *Reassembling the social: an introduction to Actor-Network-Theory*. Oxford: Oxford University Press, 2005.
- _____. Reflections on Etienne Souriau's les modes d'existence. In: HARMAN, G.; BRYANT L.; SRNICEK, N. *The speculative turn: continental materialism and realism*. Melbourne: re.press, 2011. p. 304-333. Available in: <<https://goo.gl/1s7hvG>>. Access on: Feb 15, 2017.
- _____. *An inquiry into modes of existence: an anthropology of the moderns*. Cambridge: Harvard University Press, 2013.
- _____. "...counter a metaphysical machine with a bigger metaphysical machine." Does "An inquiry into modes of existence" have a system? *Les Temps Modernes*, Paris, v. 20, n. 20, p. 1-11, 2015. Entrevista a Carolina Miranda. Available in: <<https://goo.gl/NS5Ct3>>. Access on: Feb 15, 2017.
- LATOURE, B. et al. *AIME: an inquiry into modes of existence*, 2013. Website Available in: <<http://modesofexistence.org/inquiry>>. Access on: Feb 15, 2017.
- LATOURE, B.; WOOLGAR, S. *Laboratory life: the construction of scientific facts*. Princeton: Princeton University Press, 1986.

- LAW, J. *Actor network theory and material semiotics*. 25 abr. 2007. Available in: <<https://goo.gl/ggcWNM>>. Access on: Feb 15, 2017.
- _____. Technology and heterogeneous engineering: the case of Portuguese expansion. In: BIJKER, W. E.; HUGHES, T. P.; PINCH, T. (Orgs.). *The social construction of technological systems: new directions in the sociology and history of technology*. Cambridge, MA: MIT Press, 2012. p. 105-128.
- LEMOS, A. *A comunicação das coisas: teoria ator-rede e cibercultura*. São Paulo: Annablume, 2014.
- _____. Por um modo de existência do lúdico. *Contracampo*, Niterói, v. 32, n. 2, p. 4-17, abr./jul. 2015. DOI: 10.22409/contracampo.v0i32.732
- LUNDGREN, S.; BERGSTRÖM, K. J.; BJÖRK, S. Exploring aesthetic ideals of gameplay. In: DIGRA INTERNATIONAL CONFERENCE, 9., 2009, London. *Proceedings...*, London, 2009. p. 1-8. Available in: <<https://goo.gl/vkx4FC>>. Access on: Feb 15, 2017.
- MELLO, V.; PERANI, L. Gameplay × playability: defining concepts, tracing differences. In: SIMPÓSIO BRASILEIRO DE JOGOS E ENTRETENIMENTO DIGITAL, 11., 2012, Brasília, DF. *Anais...* Brasília, DF, 2012. p. 157-164.
- SALEN, K.; ZIMMERMAN, E. *Rules of play: game design fundamentals*. Cambridge, MA: MIT Press, 2004.
- SERRES, M. Theory of the quasi-object. In: _____. *The Parasite*. Minneapolis: University of Minnesota Press, 2007. p. 224-234.
- SICART, M. Defining game mechanics. *Game Studies*, [S.l.], v. 8, n. 2, 2008. Available in: <<https://goo.gl/W8qkDJ>>. Access on: March 30, 2018.
- VANNUCCHI, H.; PRADO, G. Discutindo o conceito de gameplay. *Texto Digital*, Florianópolis, v. 5, n. 2, p. 130-140, 2009. DOI: 10.5007/1807-9288.2009v5n2p130
- WILLIAMS, F. The Guardian Cities: Skylines challenge: can I build a truly anti-capitalist city? *The Guardian*, Londres, 6 ago. 2015. Available in: <<https://goo.gl/w7JBNG>>. Access on: Feb 15, 2017.

Article received on June 19th, 2017 and approved on March 25th, 2018.