"Who should I call if no one shows up to pick up the dead? #movingout"- On gameness, materiality, and meaning in *Cities: Skylines*

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Abstract

This paper focuses on gameness, meaning, and materiality of single-player computer games. It asks: what are the things we call single-player computer games and how can we interpret them? Making use of Heidegger's duality of ontic and ontological dimensions, and, looking at *Cities: Skylines* (2015) as an example, this paper reconciles single-player computer games' 'gameness' and material-technological form in order to describe the conditions underlying their nterpretation.

Introduction

Given the nature of computer games as textual machines (Aarseth 1997), or, as "algorithmic" (where algorithm refers to "a machine for the motion of parts" [Galloway 2006]), asking 'What does game X mean?' would perhaps not be the most productive question, as it would appear to imply that the meaning of a computer game could somehow be fixed. As Frasca (2001) suggested, computer games are "simulations" and invite experimentation with their rule-governed system, which may result in meaning. Perhaps only for games explicitly designed with "procedural rhetorics" (Bogost 2007) in mind, the "What" –question alone may be appropriate: by playing Rod Humble's game *Marriage* (2007), we would be able to learn about what happened to his relationship but nevertheless we would be at pains trying to transcribe everything we have learned into the form of fixed statements. A more appropriate perspective on meaning and computer games would perhaps be to formulate a set of questions with which to open the black box of simulation within which meaning is churned around. This set would include questions such as "What meanings are at play in this game?" and "How are they related to each other?", by asking which one should be able to arrive at an understanding of the conditions of possibility for interpretation and meaning. For to understand a machine, the "how" is at least as important as "what". In this paper, I argue that for understanding how meaning operates in single-player computer games, considered as a distinct category of multistable

technological artifacts, it is useful to complement the lessons learned from meaning and games with an account of how the technological-material, or perhaps existential form of single-player computer games shapes and constrains the ways in which we can interpret them.

Risk and gameness in single-player computer games

It seems relatively uncontroversial to consider entertainment software as "computer games". Intuitively, we make sense of entertainment software artifacts by using terminology used for activities called games: playing *Wolfenstein 3D* (1992) as*,* we might describe the 'game's goal' as getting out of the prison and killing all the nazis, and may interpret all the events, objects, and encounters in *Wolfenstein 3D* in relation to this goal. Observing the behavior of the artifact, we might also note that the 'game' has a 'rule' that the doors to secret rooms containing power-ups and treasures, which a successful player should find, are hidden behind rugs and murals. Also a ludological 'borderline case' might afford such description, even if it has to be of more benevolent or projected nature: we could describe the 'goal' of *The Sims* (2000) as building a successful life for all family members, against which things can make sense. In short, it seems that 'gameness' has its place in the description of activities involving single-player computer game artifacts.

The affinity between computer games and games is nevertheless ambiguous, to say the least. Sudnow (1983, 8) speculated that perhaps Atari's products were called "video 'games' only to avoid troubles with the Food and Drug Administration". Lately, the affinity has been further complicated by for example Aarseth & Calleja's (2009) notion of games as "conglomerate objects", i.e. objects which may perhaps be a bit game, a bit story, and a bit something else. Kirkpatrick (2007, 75) suggested that computer games are "more than" games, *i.e.* that they cannot be satisfactorily described via an analogy to traditional games. Some people have taken the denial of 'gameness' of computer games even further; Woods (2007) suggests that single-player computer games have perhaps been termed "games" perhaps "merely by convention", and are better described as "automated challenges". In Galloway's (2006) example, the game *Dope Wars* (2000) has "more in common with the finance software Quicken" than with games. In short, it seems that describing computer games 'as games' is not without problems.

Nevertheless, there appears to be something on the experiential level, i.e. in the game-as-played, that Galloway's example of *Dope Wars* and Sudnow's example of *Breakout* (1976) have in common with games, something that would speak for maintaining the affinity between computer games and games: the experience of the characteristic risk involved in playing that Gadamer (2001, 106) was referring to: "the player enjoys a freedom of decision which at the same time is endangered and irrevocably limited. [E]ven in the case of games in which one tries to perform tasks that one has set oneself, there is a risk that they will not 'work', 'succeed', or 'succeed again', which is the attraction of the game. (…)" Both *Breakout* and *Monopoly* (1935) let us fail. Thus, it seems that while the application of the notion of 'game' on the things we call single-player computer games seems contested, there are experiential similarities between playing a game and

interacting with a single-player game artifact. However, an important difference remains, in terms of the relation of the 'risk' to the material existence of equipment involved in the activity. Let us elaborate on this difference.

Previously (e.g. Juul 2003) it has been suggested that the computers, not unlike, tokens, cards, and human brains, are "game media" that can "support games" by taking care of "rules" and "game state". However, this description of games as 'transmedial, meaning that the 'same game' can be played using different technologies (e.g. chess on board, chess on a computer), and sometimes even with no technology at all (e.g. blind chess), potentially overlooks the material specificity of single-player computer game artifacts, as it groups them together with game boards and pieces in the category of material objects "supporting" games. The actually existing material artifacts involved in the game of *Monopoly* cannot alone possibly "endanger" or "irrevocably limit" the player's freedom but need to be involved in a framework of rules to do so. Thus, we need rules in *Monopoly* to for example establish and maintain a miniature shoe as a player representation which can move according to the number of pips on the top side of the die. In case of single-player computer game artifacts, however, the extent of the player's freedom originates directly in the material affordances of the game artifact, i.e. in properties of the artifact as it *exists*. The Gadamerian risk is hard-coded in the materiality of the game artifact and thus we need no "rules" in between the materiality of the artifact and the process of playing (compare: Consalvo 2007, Leino 2012) to hold together an aspect of the game's materiality and its role and meaning in the process of play. As Woods (2007, 8) suggests, in single-player computer games the "natural state of affairs" is already challenging and there is thus no need to make it into a game.

In this light it is relevant to ask: what is the relationship between 'gameness' (understood as the property of involving rules, goals, and the like) and materiality (understood as that which actually exists) in single-player computer games? In the following, I shall try to provide a phenomenological description of a single-player computer game as played to shed light on this question, and apply Heidegger's distinction between the "ontic" and the "ontological" to contextualise gameness and materiality with each other. To allow talking about single-player computer game artifacts themselves, the description should be free from imposing any pre-supposed framework of description on the phenomenon and should not take for granted that the artifact would behave for example like a "game" and thus warrant describing some of its aspects for example as "rules" and others as "goals" and the resulting experience as "immersive", "fun" (Or algorithmic, or story, or procedural).

On the multistability of single-player game artifacts

To start with the least possible presupposition, let us consider, based on empirical observation, single-player computer games as "technological artifacts" (Ihde 1990, 68): amalgamations of software, hardware, and human practice. They are "multistable", i.e. contain no absolute blueprint for what they could become when situated in a use-context. Assuming that a designer

could constrain how a technological artifact could be used would be a form of "designer fallacy", a version of the intentional fallacy. We cannot assume that the designers' intentions would prevent single-player computer games from being used in a variety of ways in addition to being 'played'. Ihde (1999) notes of Heidegger's hammer, which was designed to "drive nails into the shoemaker's shoe(…)", that designers cannot prevent it from "(a) becoming an objet d'art, (b) a murder weapon, (c) a paperweight, etc."According to Rosenberger & Verbeek (2015, 25), multistability signifies that "any technology can be put to multiple purposes and can be meaningful in different ways to different users." The diversity of purposes is not, however, limitless: as Rosenberger & Verbeek (2015, 25—6) note:

> "materiality of the device constrains the potential relations to only certain uses and meanings. That is, a technology cannot mean simply anything or be used to do simply anything; only some relations prove experientially stable. (…) a multistable technology has multiple 'stabilities' or 'variations'."

It seems to make intuitive sense to say that some single-player computer games them can be used to play games: for example, high-score competition using *Tetris*, where multiple players take turns to compete in getting the highest score. Some can be used to simulate games being played, for example a game of chess on a computer against AI opponents. Ludology's assumption of computer games supporting one form of transmedial gaming makes use of this affinity (compare: Woods 2007, 12). Some relations with single-player computer games are more "experientially stable" (Rosenberger & Verbeek 2015, 25) than others. Seeking to relate to the ghosts in *Pac-Man* (1980) as your lovers would not only be your idiosyncratic projection only, but would also make you a make you a non-player in no time at all. Many computer games seem to work best if used with the idea of them as 'games' designed to be 'played' in mind, they thus can be described as inviting to be interpreted according to one of their possible 'variations' or 'stabilities'. To 'win' in *FIFA 15* (2014), I must make my team score more goals than the opposing team controlled by AI, and to achieve this it helps to think of the interactions with software artifact as similar, or at least related, to the game of football. In these cases, we assume that in these situations the users reduce the choose one of the possible 'variations' of the technology by projecting the essence of a game on the artifact and interpreting its meaning accordingly (compare: Leino 2012). However, some single-player computer game artifacts have less to do with games.

Let us consider one such single-player game artifact, *Cities: Skylines* (2015, later *C:S*) as a case through which to explore the relationship between gameness and materiality. *C:S* is a single-player city management simulation similar to games in the *Sim City* series. It contains no winning condition, and "missions" and "goals" are optional. It can be considered as a ludological "borderline case" (Juul, 2003). Saying that the materiality of *C:S* invited itself to be interpreted as if 'playing a game' would be misleading. Game-playing does not appear to be an experientially stable relation with *C:S*. I cannot try to win anything or over anyone. *C:S* does not afford a closure that would solve the "tension" characteristic to play (compare: Huizinga 1949,

105), toward which my efforts could be geared. I am aware that if I am skilled enough, the activity can supposedly go on as long as I please, limited only by the constraints of my human existence and the capacity of my computer to handle the growing city. Neither can we characterize my activity as involving "unnecessary difficulty" (Suits 1978) characteristic to games: while I sometimes struggle when placing highway ramps due to the software's insistent preference of suspension bridges instead of concrete causeways, I appreciate the ease of use of the interface in *C:S*, which, especially after installing the "City Vitals" interface mod which presents me all necessary data about my city at one glance, seems to have been designed with user-friendliness and maximum convenience of city-planning in mind.

Nevertheless, *C:S* affords multiple ways, some of which I will discuss in the next section, in which I can fail, and consequently be fired as the mayor of the city, *i.e.* to be 'kicked out' from the game. Due to these affordances, playing *C:S* nevertheless involves the "risk" (Gadamer 2001, 106) we are familiar with from playing games. The relation to *C:S* as a computer-supported form of transmedial gaming is not experientially stable, since *C:S* lacks many of the central elements of games. We cannot relate to it as a "sandbox" either, since taking too many creative freedoms would lead to expulsion from the game. What would be the appropriate frame of description for the relation between me and *C:S*, whose non-gamey materiality nevertheless affords a game-like risk?

Cities: Skylines **as a playable artifact**

Heidegger (in Ihde 2010) suggested that it is "correct" to see technologies as tools and human activities. This is a description of the "ontic" dimension of technology, which, while being "correct" masks what is "true" about technology – that in its "ontological dimension" it is a way of revealing. For example: it is can be "correct" that a hydroelectric powerplant was constructed to generate energy to light up people's homes, but it is "true" that it reveals the river primarily as a source of energy. Ihde (2010, 32) suggests that according to Heidegger, "it is only through the ontic that the ontological can be understood but the ontological dimension is in turn the field of the conditions of possibility that founds the ontic." Let us experiment with how the ontic/ontological distinction could be applied to describe both the "gameness" and the material affordance of risk in *C:S*.

We may observe that *C:S* has rules that players may follow: to avoid traffic jams caused by cars using only one of the multiple lanes available, all roundabout entrances and exits should be one-way roads. *C:S* has goals: by building a series of "unique buildings", players can strive for building "monuments". It appears correct to say that *C:S* has rules and goals and thus resembles a game. Following Heidegger, these correct descriptions possibly mask something essential about *C:S* – something that is a precondition for any rules and goals, but can only be encountered through them. What could be beneath the rules?

Consider the "rule" of one-way roundabout entrances and exits. It stems from the need to avoid traffic jams. Why players need to avoid traffic jams in *C:S*? Like we assumed before that the goal of *The Sims* was to provide for a successful life for the sims, in *C:S* we might be tempted to assume that the player has a purpose, to build a well-functioning city, from looking at and interacting with which she might derive aesthetic pleasure. This seems sensible. Consider the following example. *C:S* affords following the individual citizens' day-to-day goings. The information gleaned from these observations can of course be used to optimize city planning, but is also a meaningful diversion to satisfy players' curious, and perhaps even a narrative, desires. The popular *Reddit* website has a "subreddit" dedicated to links to picture-filled reports, sometimes structured into narratives, about the lives of individual citizens in players' cities. It is correct to say that in addition to merely 'playing' the game, there are a number other of ways in which *C:S* can function as a "tool for fun" (Adamo-Villani 2001) , which can serve as purposes to which the necessity of following the rules can be subordinated.

These may well be correct descriptions, but by looking at the materiality of *C:S,* we can observe that already before the player uses the game for any of her own projects, the materiality of the artifact contains a reason for avoiding traffic jams. If traffic is stagnant, the garbage trucks heading out from landfills and incinerators and the hearses emanating from graveyards and crematoriums get stuck in traffic instead of collecting garbage and corpses. Leaving trash and dead citizens unattended poses a health risk, prompting some citizens to pack up and leave city and causing others to get sick and die. In both cases, the city's tax income suffers. If this vicious cycle if left alone, income will slow into a trickle and finally die down, and all available cash reserves and loans will be consumed, after which the game will be over. In short, the "rule" of one-way roundabout exits and entrances is important in relation to the risk that the activity would not continue. While it is correct that *C:S* has rules and goals whose significance can be described in relation to anthropo-instrumental understanding of the game as a tool for various pursuits of pleasure, it is true that *C:S* imposes on me a "gameplay condition" (Leino 2009): by resisting my project of playing, ultimately to the point of a failure after which it would be physically impossible to continue playing even if I so wished, *C:S* makes me responsible for the freedom I enjoy. Thanks to this resistance, the freedom I enjoy is not an idiosyncratic projection, but real freedom of choice and action within which a distinction between 'wishing' to and 'choosing' to do something is meaningful. I may strive for building monuments, for providing higher education to all eligible citizes and distributing smoke detectors to all households, for replicating the town plan of East Berlin complete with Karl-Marx Allee, for telling stories on *Reddit* of my exploits as a mayor, but in order to be able to any of these, I need to not die.

In line with Ihde's (2010, 32) remark that "it is only through the ontic that the ontological can be understood", the gameplay condition can only be understood through the rule-governed behavior of the artifact. I can exercise my freedom only in relation to the rule-governed behavior of the artifact, and, the responsibility becomes manifest in situations where the rule-governed behavior shows resistance to my actions. Furthermore, keeping with the notion that "the ontological

dimension is in turn the field of the conditions of possibility that founds the ontic" (ibid.), if there was no gameplay condition, i.e. if the player was not responsible for the freedom she enjoys, there would be much less point in having any rules – at least they would be devoid of the kind of meaning that is characteristic to computer game "rules" and thus resemble the "rules" that can be described in a word-processing software (e.g. pressing Ctrl-S saves the document) or a virtual world. Consider *Proteus* (2013), described by its creators as "a game of audio-visual exploration and discovery", which does not afford failure. In the absence of gameplay condition, the artifact leaves unanswered the players' questions about the meaning of any rules they may observe (Leino 2013, Bogost 2013): for example, what is the significance of changing the season by stepping into the magic circle? This ambiguity does not, however, prevent from using *Proteus* to satisfy narrative desires in a fashion unlike that of *C:S* players sharing their stories on Reddit. Like *Proteus, C:S* might not be a "game", but given the risk present in *C:S* but absent in *Proteus*, calling *C:S* a "sandbox" (compare: Juul 2003, 43—4) would not be appropriate either.

Steering clear of theoretical presupposition that the description was supposed to avoid, we can say that *C:S* is a multistable technological artifact. However, it stands out from among all technological artifacts, like eyeglasses, air-conditioners, ATMs, word-processors, and washing machines as it imposes a "gameplay condition" on its users. The human/technology relationship between *C:S* and its player is significantly different from the human/technology relationships between players and equipment supporting games, such as board, pieces, and tokens in transmedial gaming. This warrants drawing a line between *C:S* and "gaming" also on the level of language: let us consider *C:S* an example of what we might call playable artifacts.

Gameplay condition and interpretation

Described on the ontological level, playable artifacts impose gameplay condition on their users, i.e. make the users responsible for the freedom they enjoy. On the ontic level, some playable artifacts can be described using terminology associated with games: to describe the intricacies of my responsibility in for example *FIFA 15* is most convenient using the vocabulary of football, but this terminology is close to useless for the description of *C:S*. Different individual playable artifacts warrant different kinds of ontic descriptions, tailored to their specificities. While *Tetris* (1984), *C:S,* a pinball machine, and *GTA V* (2013) are similar on the ontological level, on the ontic level they differ – *i.e.* take very different approaches to making us responsible for the freedom we enjoy as their players. Whereas when interacting with a pinball machine my imperative is to avoid letting balls slip through the paddles and thus I must divide my attention between all the balls moving around under the glass, in *C:S* unimpeded flow of traffic is my priority number one, which is why all my roundabout entrances and exits are one-way roads. In Tetris (1984), I am must keep the stack of blocks from reaching the top of the container, and I thus avoid leaving holes in the stack. In *GTA V*, I am free to roam around the game world using different avatars and different vehicles, taking up quests as I see fit, but if I die more than 5 times, the game is over.

Gameplay condition lends significance to rules, goals, and challenges, and structures them and their associated game content into "instrumental-rational ontologies" (Leino 2013). These can be understood only in relation to the gameplay condition. In *The Sims 2* (2004), for example, a bookshelf is useful for learning cooking which helps keeping sims satiated. This knowledge would be useless, if we did not know that the game is over if the sims die of hunger in a fire started by trying to cook without sufficient skill. Every time the creators of *The Sims* games release a new patch for the game, they also release a "patch notes" document describing the changes the patches make to the game software. Some of these may be perceived as hilarious, for example, since 30th November 2010, "pregnant sims can no longer 'brawl'" in *The Sims 3* (2009). However, considering these updates as merely hilarious overlooks the fact that thanks to the gameplay condition that prevails in *The Sims 3*, both "being pregnant" and "brawling" mean something specific in the context of *The Sims 3* that is not necessarily related to being pregnant or brawling in the real world, *i.e*, something specific in relation to gameplay condition of *The Sims 3* but not necessarily related to pregnancy and brawling as we understand them in relation to the human condition.

In *C:S,* there is an in-game feature, "Chirper", resembling a simulation of Twitter, on which citizens post messages about events and states of affairs in the city. Perhaps to make the Chirper similar to its real-life counterpart, it quite often broadcasts superficial and meaningless messages with negligible correlation with reality, for example about conspiracy theories and Teflon-coated underpants. Sometimes, however, Chirper spreads messages of profound importance to the player's condition. Should the player fail to ensure available right of way to hearses, citizens take it to the Chirper to complain about dead bodies not being picked up. Understanding that 'chirp' requires making reference to the gameplay condition in *C:S* and accepting the significance it has vested in 'dead bodies.' We can safely assume that the chirp about dead bodies is intersubjectively significant – *i.e.* that it is similarly relevant to all players, or, that all players will interpret it a similar fashion – given that they are all subjected to the same gameplay condition. Following Sokolowski's (1999, 153) understanding of intersubjectivity, we may suggest that *C:S* is the "world [the players of *C:S*] have in common", within which both 'dead bodies' and their 'collection' occupy their very own spots in the instrumental-rational ontology, like pregnancy and brawling do occupy theirs in the instrumental-rational ontology of the 'world' of *The Sims 3*. To then understand what "brawling" means in *The Sims 3,* or what "dead bodies" mean in *C:S*, we would need to engage in analysis of these games in terms of their ontic dimension.

The instrumental-rational ontologies may sometimes even cross the divide between the "semiotic" and the "mechanic" in a game (Aarseth 1997, Mosberg 2012). Consider the example of stickers in *Need For Speed: Underground* (2003, later: *NFSU*), with which the players of can decorate their cars. At the first glance, they may appear as "semiotic" only; mere decoration and irrelevant to gameplay, since regardless of the design of the sticker, the player's car will not go any faster. However, because to acquire them the player has to part with in-game currency which could be

used for the purchase of power-ups, they are not irrelevant to *NFSU*'s gameplay condition but can be meaningfully described as luxury or excess in the specific context of *NFSU*. (Leino 2010, 258)

These observations suggest that in order to understand how intersubjective meaning operates in computer games, in addition to understanding computer games in relation to the "rules" we may observe in their real-time behaviour, interpretation has to also take into account the frameworks of freedom and responsibility the players are situated in, and the instrumental-rational ontologies that emerge.

Conclusion

It seems that with the ontic/ontology duality helps locating the 'gameness' of the multi-stable technological artifacts we may be used to calling "single-player computer games" in relation to their material-technological form. Ihde (2010) suggested that Heidegger's ontic and the ontological need to be understood in relation to each other: only through the ontic we can encounter the ontological, but the ontological is a precondition to the existence of the ontic. We may now summarise a two-level description of playable artifacts. On the ontic level, they can be described as imposing a gameplay condition on their users. On the ontological level, they can be described as containing rules, goals, and other game-like elements, through which the gameplay condition becomes manifest, and for which gameplay condition gives their significance. In other words, we can encounter the gameplay condition only as manifested in the real-time behavior of the game artifact, i.e. in the rules, goals, etc, but without gameplay condition, i.e. being responsible for the freedom we enjoy while playing, these rules and goals, would be devoid of the kind of meaning characteristic to computer games.

It is correct to say that some playable artifacts can be described using terminology of games, but doing so invites focusing on their anthropo-instrumental minutiae and thus potentially masks the truth about them as technological artifacts, i.e. those qualities which appear to be to unique among all technologies, if not even essential to the technological form of "single-player computer games": that they are material objects which afford a freedom, but simultaneously make their users responsible for this freedom. In this light, even if the experience of risk is similar to that in games, the nature of playable artifacts has little to do with game-playing, but more with aspects that are not dissimilar to aspects of human existence in the world. Thus, in dialogue with Möring (2013), we may somewhat paradoxically suggest that the essence of playable artifacts is nothing ludic, but rather, existential. Thus, in addition to looking at computers simulating games being played, and making concessions in traditional definitions of games to account for the involvement of computers and the peculiarities computers bring along, to understand meaning and computer games requires also exploring the forms of signification that do not necessarily resemble the ways in which games are meaningful, but arise from the playable artifacts' unique capability of making their users responsible for the freedom they enjoy.

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