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# From Movement to Choice: Ontic and Deontic Freedom in Video Games.

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## Abstract

According to the vast majority of game scholars, freedom is very important for games, relatively both to the dynamics which constitute their syntax properties and to the contents which give a framework to their semantics. But which is the type of freedom involved in games? Early computer games provided a freedom based on movement and interaction (*ontic* freedom). The notion of movement has been deeply grounded upon that of spatiality: the exploration of computer gaming spatiality is enacted by players through the interaction with a system of affordances, which in any case must be conceived by the very same players within a fictional context confining their behaviours in a state of psychological and ontological *quarantine*. Understanding the roles of fiction and interaction in defining the structure of games leads to discover that but the technical development of the representation of real time movement has created the possibility of implementing also a type of freedom based on choice and fiction (*deontic* freedom). In any case, almost all computer games provide just a *negative* freedom, i.e. a freedom from external constraints, whereas only few computer games provide a positive freedom based on social engagement.

## 1. Which type of freedom?

During the use of gaming software, the majority of children reports a triple experience of *freedom*, *control*, and *challenge* (Livingstone 2002). How do these three experiences relate each other? According to Huizinga (1938) game is “a freely accepted rule”, but deontic logic (Conte 1985) explains that every rule needs to be freely accepted, otherwise it would be not a rule, but just a physical constraint or a brute menace. Thus, what probably Huizinga intends is that ludic rules do not entails sanctions outside the game itself. This means that gaming rules are inserted in a *magic circle*, which separates ludic behaviours from the others. This objective boundary is accompanied by the subjective limit of a *fictional frame*, constituted by an intentional assignation of a status function (Walton 1978, 1990; Searle 1975, 2010) which creates a state of *quarantine* that leads the player to control the ludic environment (Nichols 2000; Gendler 2003; Leslie 1987). Many psychological studies (Winnicott 1971; Vygotskij 1966) can aid to understand that freedom can be experienced only through control. Challenge is the reason that keeps the player inside the gameworld after she joined this free state.

Computer games normally are focused on the gain of control in order to win a challenge. For example, in *Tetris* (Pajitnov 1984), the player has to correctly take the control of the movement of blocks in order to give them a requested order. Similarly, in *Zork* (Anderson 1977), the player has to correctly take the control of the textual affordances on screen in order to survive to the threats, page after page. Therefore, the Salen and Zimmermann (2004: 80) definition (a “game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome”) can be intended as the description of a dynamics without considering the goal or the of player or the type of experienced freedom. According to the vast majority of game scholars, freedom is the most important syntactic dynamics and also the most important semantic content of games. But which type of freedom is involved in games?

## **2. From Free Movement to Free Fiction.**

Philosophy of language recognize games as the first artificial environments created by humans. The creation of games is due to the intentionality of players, who consider a real object X as being a ludic object Y, e.g. “this broom is a horse” (Searle 1975). Sometimes the players extend the frontiers of their game over their individual intentionalities, becoming social environments. However, another philosopher of language, Ermanno Bencivenga (1995, 2013) notices that although games constitute the base of the development of language, society, culture and even logic, the first type of playing behaviour does not involve intentionality, but it is materially related with movement, which allows to explore the factual freedom possessed by young animals.

According to a Kantian view, Bencivenga beckons the metaphor of the dove that flies thanks to the resistance of the air: games are free explorations which cannot imply absolute freedom, requiring instead a set of facts within to move. Movement allows the exploration of the real environment surrounding the subject, which leads the subject to encounter the resistance offered by the reality (the Fichte's *Nicht-Ich*). The impact is devastating, and in order to not being overcome by the tsunami of reality, the subject constitutes a fictive dimension where everything is as the subject wants: the game of movement transfigures in a game of fiction. Winnicott (1971) shows that only if the subject, thanks to fictional games, learns to not feel beaten by reality, then the resistances encountered in its exploration can be used to realize the subjective goals. Resistances can be transformed in rules to follow or not, without any necessity. The indivisibility of reality is then opposed by the plurality of games: if there was just one game, it would be not a game, but just a new sector of reality. Instead, games are separated from reality, and they can substitute it because they are limited and plural dimensions.

Fiction emerges from ludic practices, which emerge from free movement. The Bencivenga's view echoes that of Gadamer (1960), according to whom the language is a new ontological dimension that emerges from a free and oscillatory movement (to Kant this movement is the free accordance of imagination and intellect). Salen and Zimmerman (2004: 304) combined the Gadamerian view (play as a free movement) to the Huizinga's one (play as an activity separated from the serious life by a magic circle) defining play as a “free movement within a more rigid structure”. The interaction between the player (who enjoys a free movement) and the game (that implements a rigid structure) is central for the explanation of the play attitude.

## 2. Movement and Interaction.

Early computer games have been substantially focused on movement. The first computer game has been *OXO* (Douglas 1952), an automated version of Tic-Tac-Toe, but this game did not innovate the possibilities of traditional gaming; instead *Tennis for two* (Higinbotham 1958) introduced the real time graphic representation of interactive movement, which no other previous game types implemented. Because of the visual nature of video games, freedom has been instantiated primarily as movement, which, as real time interaction with on screen objects, can be considered as their main technological and communicative innovation (Klevjer 2006).

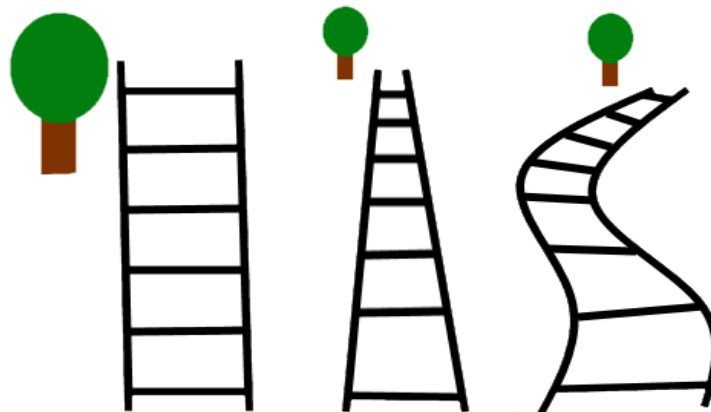
The centrality of movement for interaction has led many scholars to consider the representation of space as the core of computer gaming: “the defining element in computer games is spatiality” (Aarseth 2000). The representation of space, in video games, is indeed related to the possibility of making an experience of an interactive movement. The point of view of the user is therefore fundamental for understanding the structure of spatiality implemented in video games. The commonsensical conception of spatiality (Bozzi 1990) shared by players and designers divides spatiality in place, territory, map and space:



The *place* is the subjective portion of gameworld experienced by the player. This experienced environment, from the point of view of the subject, is objectively existent and provided of uniqueness. The *territory* is an objective portion of gameworld represented on screen. The player move through objective territories, experiencing them as places. Movement is an objective change of position of the player in a territory, but its perception is always subjective. Due to the fact that freedom is an experience dependent on the point of view of the subject, the free movement is always related to place and not to territory. Games that produce a clear feeling of free movement are not necessarily those which give a complete access to the territories of the gameworld. Rather, games that allow to explore them through a narrow place, encouraging movement as a challenge and not as a complete control, provide a deep

experience of freedom. The games which give access to an open world, allowing a free movement inside it, can be distinguished in two types of games: some games, like *Minecraft* (Persson 2011), give to the player a set of material tools that allow and motivate her to change and transform the gameworld; on the contrary, other games, like *Proteus* (Key 2013) do not give any tools, so the player just wanders in the wilderness, looking, exploring and contemplating (Vella 2013). The result is that in the first type of games, focused on a type of freedom based upon control, the player develops a sense of property of the land she is controlling, whereas in the second type of games, focused on a type of freedom based upon exploration, the player develops a sense of wonder that culminates in an aesthetic contemplation.

The *map* is an objective representation of a single territory: it is not a simple picture, because it represents a territory taking into account some properties of a territory, such as altitude, relative distance, the presence of houses or roads, etc., with a systematic method; there are many possible maps of a single territory. Finally, the *space* is the objective and abstract representation of all territories of the gameworld, grasping their shared properties<sup>1</sup>. The subject, in this case the player, can make experience only of places, but her conception of territory (a mental map, or even the abstract concept of space) can influence her concrete movement within the lived experience of place. For example, maps can be on screen affordances or even just in the mind of the player. Probably our native mental model of reality is a sort of map. A clue of this is the naïve representation of children in early drawing: in their sketches the representation of the binaries depicts them as parallel, like in a map:

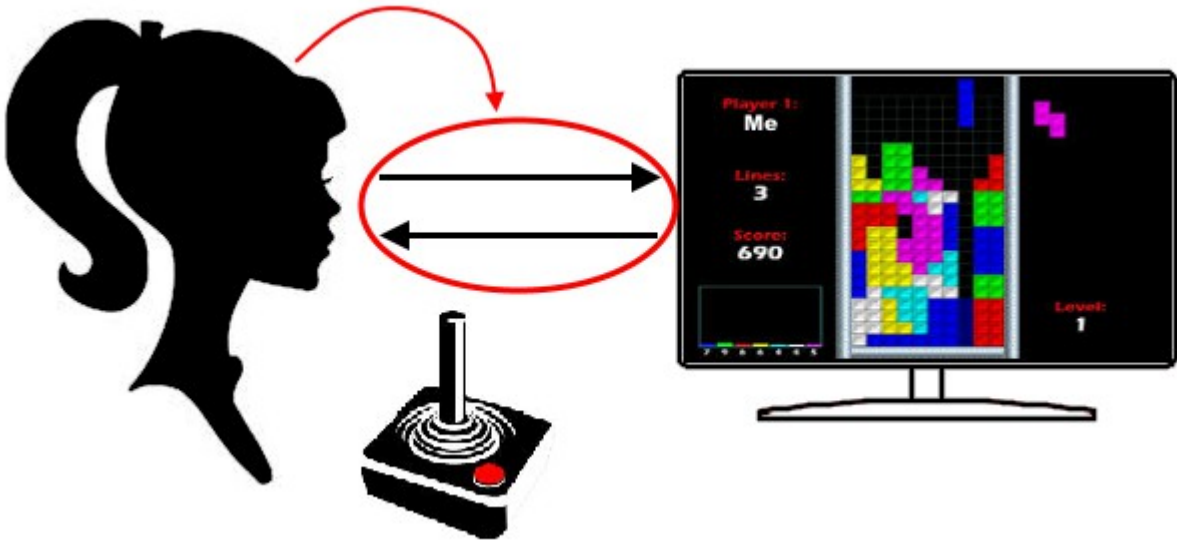


The first figure is a representation of the mapped model of reality as we conceive it. On the contrary, the second and the third images are representations of our concrete perception. As movement, the video game interaction is concretely instantiated by the dialectics between the place, i.e. the experienced environment from the point of view of a subject, and the space, i.e. the objective and abstract representation of all places. Thus, players perceive their movement as a proof of their freedom. In order to be felt as free, the movement must be perceived as relative to the place where the subject is projected through her imagination. This condition is necessary but not sufficient: the player must also interact with the territory.

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<sup>1</sup> The possibility of an objective representation of a single place or of the collection of all places is a matter investigated by phenomenology, which is not our interest here (exactly like the meta-subjective representation of a single place or of all places).

The concept of interaction has been profitably explored by cybernetics, a discipline founded by Norbert Wiener during the Forties. Cybernetics describe interaction as a *feedback* among a series of natural phenomena, for example between the temperature of the hand and that of a glass of water: their contact allows an exchange of heat for conduction, drifting towards a mutual homogenization. In any case, the feedback schemes studied by cybernetics exclude the role of human intentionality, which instead is central in games. The ludic interaction is constituted by a series of events which the subject generates using her awareness, exactly like the schismogenetic response between escape and search in a love affair, an interactional phenomenon that depends on the intentionality of the involved actors. In many cases, like in love affairs, the interaction is a process that remains completely unconscious: on the contrary, the ludic interaction requires its perception. If the subject carries out some actions related to an object or to another subject, obtaining a reaction, then there is a feedback, but this is not sufficient in order to constitute a gaming interaction. During a game, the player ascribes both the action and the direction of the reaction to herself:

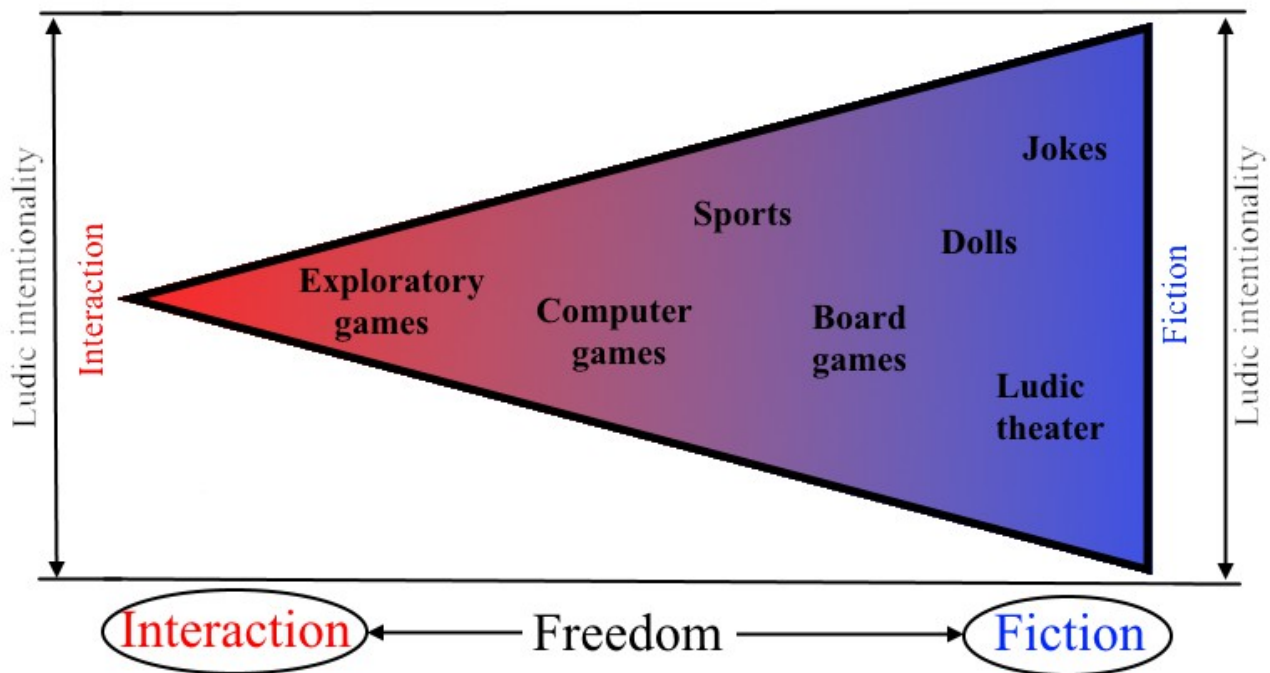


The system of reactions can be actually objective (like in collective games or in computer games) or even just subjective, totally dependent on the fiction enacted by the player (like in solitaires with dolls or cards). It is possible to individuate four levels of interaction-like phenomena, and only the last is the interaction involved in games:

<b>Circuit</b>	Natural system (hydrogeological cycle, flow of blood, thermostat).
<b>Feedback</b>	Natural system dependent on the subject (hand-glass temperature).
<b>Response</b>	Social system dependent on the intentionality of the subject (love schismogenesis, master-slave dialectic).
<b>Interaction</b>	Mind system dependent on the intentionality and on the awareness of the subject (game, dialog).

The proper *interaction* allows exploration, which is, as we have seen, the first ludic behaviour.

Freedom is in this case experienced as the possibility of moving the subjective place through objective territories. This does not mean that interaction is sufficient for the constitution of a game: players always need also fiction. Every game is constituted by a combination of interaction and of fiction. Historically, because of their automated and visual nature (so strictly related with movement), computer games have been focused mainly on interaction. The role of intentionality grows with the growth of fictional components; however, also the most interaction-based game needs to be conceived as a game by the player's intentionality:



This affects the type of freedom involved in a game. In many Occidental RPGs, players can choose their characters, configuring name, body, look, dispositions, abilities and social position; these traits can be enhanced by exploring vast areas and experimenting every type of behaviour; often players project their desires onto a fictional environment that can be explored (e.g. *Ultima*, Garriot 1981). On the contrary, in many Oriental RPGs, players cannot choose their character, cannot explore as they want the gameworld and cannot make all the experiences they desire; often the goal is just to discover the real identity of the avatar, without having the possibility of constructing it (e.g. *Final Fantasy VII*, Yoshinori 1997). We can say that the focus of Occidental RPGs is mainly on exploration (interaction) whereas the focus of Oriental RPGs is mainly on plot (fiction). The nature of freedom in games has a relation both with interaction and with fiction, but computer games are more focused on interaction than on intentionality, thus the games which offer more possibilities of interaction automatically offer more possibilities of experiencing freedom.

### 3. From Ontic Freedom to Deontic Freedom.

We have seen that normally computer games offer the possibility of an interactive type of freedom based primarily on movement. But there is also another type of freedom, more focused on the choices that the subject can do, completely unrelated to the simple physical

movement.

The philosopher Friedrich Schiller (1794) tried to explain how actual individuals can arrive to realize the Kantian accordance of freedom and necessity in the practice of autonomy, i.e. the obedience to the moral Law that they commanded to themselves. The “play drive” (*Spieltrieb*) is the developmental step that go between the “sense drive” (*Sinnestrieb*) which governs the appetites of the animal man and the “form drive” (*Formtrieb*) which governs the goals of the reasonable man. Schiller chose to anchor the medial drive to the concept of play because he needed a phenomenon with the proprieties of contingency, littleness, unseriousness, easiness and triviality. Physical and moral laws, writes Schiller (1794: letter XV), are serious because they are necessary. In games, there is no necessity at all, and players overlap being (*Sein*) to duty (*Sollen*): in the gameworld, things are exactly as the players want, and this is the most important step towards the concept of a world where the things are exactly as they should be. According to Schiller, the playing activity is an experience of freedom that liberates from the *ontic* necessity of nature (“this broom is a horse”). The experience of *ontic* freedom leads the player to develop a new type of necessity, the *deontic* (or moral) one. This is also the view of the psychologist Jean Piaget (1945), who explains the development of autonomous moral laws from the practice of the autotelic ludic rules. We can recognize that, after the creation of morals, within games the players can liberate themselves also from the *deontic* necessity (“this building is mine, because I am a princess”).

We have seen that game is often defined as a free movement in a more rigid structure, and that the video game interaction is concretely instantiated by the dialectics of place (the experienced environment from the point of view of a subject) and space (the objective and abstract representation of all places): players perceive movement as the friction between the place of the subject (player) and the space of the object (game). Movement is recognized as a proof of material freedom. In video games the instantiation of movement is mainly material interaction with the affordances offered by software, thus players can make experience of an *ontic* freedom related to an environment where the normal laws of physics cannot exercise their necessity.

When graphics advancements gained the material possibility of offering an experience of free-roaming, e.g. in *Elite* (Braben 1984), then another type of freedom has been introduced by the introduction of the sandbox genre: the *deontic* freedom. Here, freedom is not just related to movement but to social choices: players of *Elite* can choose *what* to do and not only *where* to move. Games like *Ultima* (Garriot 1981) or *Shenmue* (Suzuki 1999) marked this path. So video games passed from an *ontic* freedom related to movement to a *deontic* freedom related to choices and social relations. The centrality of choices increased his potential with the introduction of a realistic scenario (*Grand Theft Auto*, Dailly 1997; *The Sims*, Wright 2000), and multiplayer interaction (*Second Life*, Linden Lab 2003). Some games emphasize the existential *Either/Or* problem of cutting a possibility (*Blade Runner*, Westwood 1997; *Mass Effect*, Hudson 2007; *Fallout 3*, Howard 2008), whereas others emphasize the moral consequences involved in any choice (*Fable*, Molyneux 2004; *BioShock*, Levine 2009). In any case, there are some differences: in some games (like in *BioShock*, *Mass Effect* and *Fable*), the choices affect just the end of the plot and/or have a moral weight only related to the reality outside the gameworld. Instead, in other games (like in *Fallout 3*) the moral choices have enduring consequences in the gameworld. Finally, in some games (like in *GTA*) moral choices have almost no consequences and/or are made by the player in explicit contrast with her real

morality and/or with the common morals.

#### 4. Positive or Negative Freedom?

We have seen that computer games provide an interactive freedom that can be focused on movement (ontic freedom) or on choices (deontic freedom). However, according to Bencivenga, the postmodern citizen is a forced player and the games carried out with toys and machines cannot be defined as creative or liberatory. The market and the industry, writes the philosopher, are not directed to develop imagination; the postmodern ludic imaginary is not created by the individual or by the group of players, but by the cultural industry, so that the player can just hope to live this imaginary from the point of view of the protagonist. The system of props (Walton 1990) offered by computer games create a net where the player can move, choosing a path from those made available by the programmers, experiencing just a relative freedom.

Many authors refers to the concept of “free behaviour” as to an “autotelic behaviour”, i.e. a behaviour that has a purpose in itself. Such type of behaviour can be formalized in the following way (Møller 2003):

$P/R > 1 = \text{Game}$

$P/R < 1 = \text{Work}$

Where P is the process and R is the result. Autotelic behaviours are not intended as means by those who enact them, therefore according to this view a society where every activity has an internal goal can be defined as a ludic society (Marcuse 1955). But what about the behaviours which have an external goal and which are freely chosen by the subjects enacting them? For example, I could freely and voluntary drive in order to go to Milan: in that case, the journey is not a goal, but a (free) means.

The definition of freedom strictly depends on the point of view of the involved subjects, for example the subject has an experience of freedom only if she has experienced before a state lesser free (Plato, *Crito*). According to Constant (1819), Mill (1859) and Berlin (1958), there are mainly two types of freedom which take into account the point of view of the subject: a *negative* freedom, that is the absence of coercion (“being free from...”), and a *positive* freedom, that is the freedom to act (“being free of...”). The explanation of negative freedom can be given using the Modern conception of Hobbes and Spinoza:

Liberty, that we may define it, is nothing else but an absence of the lets, and hinderances of motion, as water shut up in a vessell is therefore not at liberty, because the vessell hinders it from running out, which the vessell being broken, is made free. And every man hath more or lesse liberty, as he hath more or lesse space in which he employes himself (Hobbes, *De Cive*, IX, 9).

Men think themselves free inasmuch as they are conscious of their volitions and desires, and never even dream, in their ignorance, of the causes which have disposed them so to wish and desire (Spinoza, *Ethica*, I, Appendix).



[...] That thing is called free, which exists solely by the necessity of its own nature, and of which the action is determined by itself alone. On the other hand, that thing is necessary, or rather constrained, which is determined by something external to itself to a fixed and definite method of existence or action (Spinoza, *Ethica*, I, 7)<sup>2</sup>.

Hobbes defines freedom as a free movement in space, without any external constraints; similarly Spinoza defines freedom as the possibility of existing “solely by the necessity of its own nature”. According to these Modern authors, the individual is free if the institutions protect her possibility to satisfy her personal desires. On the contrary, the positive freedom is related to an Ancient conception, well expressed by Plato and Protagoras, according to which the individual is free only if she contributes to the management of the public sector, being able to act directly upon the society which she belongs:

<b>Negative Freedom</b>	<b>Positive Freedom</b>
Movement and existence without external constraints.	Contribution to the management of external constraints.
Individual.	Society.
Reliance on external context.	Change or creation of external context.
Contrary: prison detention, inhibition of free movement.	Contrary: (social) exclusion from the possibility of changing the <i>status quo</i> through a series of choices.
Liberalization.	Liberation.

The negative freedom is related to the possibility of “being yourself” and trying to satisfy your desires as individual, a possibility that is given by a precise context determined from external entities, like a well defined social power or, in a game, a magic circle. The positive freedom instead requires a participation of the subject in the creation of the context, which can be a social power or a ludic state of things. Negative freedom is well expressed by the free movement, and its contrary is the prison detention; instead, positive freedom is well expressed by the free choice or by the struggle for obtaining it, like in Antigone's tragedy or the Kiekegaard's *Enten-Eller*, and its contrary is the (social) exclusion from the possibility of changing the *status quo*. The positive freedom generates directly a liberation, whereas the negative freedom depends on a previous liberalization. The liberation process is the redefinition of the behaviours through the behaviours themselves. The liberalization process is instead a definition of which behaviours must be sanctioned and which behaviours must not be sanctioned: the liberalization precedes the free behaviour, whereas the liberation is consubstantial with the behaviour itself.

Different games give access to different types of freedom, as we can recognize also from the linguistic use of the term “play”, which can indicate a sport, a break, a joke, an illicit and

2 Ea res libera dicetur, quae ex sola suae naturae necessitate existit et a se sola ad agendum determinatur: necessaria autem, vel potius coacta, quae ab alio determinatur ad existendum et operandum certa ac determinata ratione. [...] Homines se liberos esse opinentur, quandoquidem suarum volitionum suique appetitus sunt conscii, et de causis, a quibus disponuntur ad appetendum et volendum, quia earum sunt ignari, nec per somnium cogitant.

short sexual relation, a maneuver, an operation, a drama, an entertainment, etc.. In many cases, games give the possibility of being freer than in the real social context, both in a positive or in a negative way. Creative games, e.g. like those played with *Lego* bricks, and transgressive games, like going over the speed limits, give the possibility of experiencing a positive freedom, because they redefine the context (in the case of *Lego*, the ontic context, in the case of speed limits, the deontic context). Some games give the possibility of experiencing a momentary freedom and others give the possibility of experiencing an enduring freedom, which go with the subject also when she quits her player dresses.

We can say that the large majority of computer games gives only the possibility of making the experience of a negative freedom: normally, the player can move only in a pre-programmed environment (e.g. like in *Pac-Man*, Iwatani 1980), she can choose her path from a fixed set of possibilities (e.g. like in *Mass Effect*, Hudson 2007), or she can interact with a series of structured affordances (e.g. like in *Chessmaster 2000*, Kittinger 1986). Above all, we have to notice that both the *ontic* and the *deontic* freedoms involved in the large majority of computer games are negative freedoms, which give access to an environment free *from* the causes of ordinary behaviours, or *from* their effects, or *from* the constraints that inhibit a certain conduct:

FREEDOM FROM...	...ontic necessity	...deontic necessity
...causes	Slot Machines	<i>Second Life</i>
...effects	Pinball; <i>Space Invaders</i>	<i>GTA</i>
...constraints	<i>Elite</i>	<i>Elite</i>

There are some exceptions, the simulation sandboxes with no goals: they allow the player to explore the possibilities offered by the system. We can consider *SimCity* (Wright 1989) as the main example of this type of games. However, many authors noticed that in *SimCity* is not possible to create cities using approaches different from the urban theories of the Sixties (Bittanti 2004) and according to the sociological analysis conducted by Starr (1994) *SimCity*, like any other simulation, exposes its assumptions: “the only type of city you can create is the modernist, car centered, grid based, North American city” (Pedercini 2014). There are games which seem more oriented in giving the possibility of making the experience of a positive freedom, explicitly relating it with the social engagement of the player. An example is the series of *Democracy* (Harris 2005), which is a government simulator that allows and encourages the change of the basic structure of the simulated social system, recreating all the precise causes and effects that this could imply. In any case, also this type of games inhibits the change of the pre-programmed algorithms (which have a if-then structure). This is due to the nature of the automated machines, which can only offer a set of affordances; the user can interact with them without changing their fundamental structure.

Only few games give the possibility of changing the game structure itself and normally they are multiplayer games, so that the challenge is maintained by the interaction with other players. One example is *Magic Workstation* (Magi-Soft Development 2002), a digital transposition of a boardgame, where players can cheat if not recognized by opponents – and where two players can choose to play following unofficial rules. Another game is *Nomyx* (Dupont 2014), the digital transposition of *NOMIC* (Suber 1982), a boardgame which needs a complicated learning of a special code programming technique that in any case does not cover

all the possibilities offered by the original boardgame. It is very difficult to program a structured computer game which can give to the player the possibility of experiencing a positive freedom. Probably only programming tools like those in *S.E.U.C.K. Shoot'Em-Up Construction Kit* (Sensible Software 1987), *Little Big Planet* (Healey 2008) and *Project Spark* (Team Dakota 2014) can give this type of freedom. These gaming software allow the player to change the possibilities offered by the system itself. The asymmetric multiplayer experience of these games gives just to the programmer-player the possibility of experiencing the positive freedom: the players who simply use the software programmed by other players make a traditional negative freedom. In any case, the experiences of the users who play the creations of the original players of these construction kits are very different from the passive, unfree experiences of the viewers of the films produced through games like *The Movies* (Molyneux 2005).

As a conclusion we can say that the large majority of computer games give the possibility of experiencing a negative freedom mainly focused on the movement through an environment. There are more and more games which provide a negative freedom focused on social and plot choices, but we can also say that only few games let emerge a positive freedom. Some of them are focused on giving the possibility of constructing new games. Others implement the multiplayer vocation of positive freedom through an online platform that gives the possibility to the players of interacting with other players in order to create a community with autonomous rules. In these games the creation of social rules by those who participate to a collective quest or those who found a guild can be considered as a genuine experience of positive freedom, but in this case the computer is just a medium like another, and the ludic mechanics could be also replicated through other media or even live.

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