

Exploration in computer games – a new starting point

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ABSTRACT

Space, vast lands and dungeons... It is no coincidence that *Space War* and *Adventure* are among the best known of the first computer games. Both clearly appeal to the player's curiosity, and desire to explore unknown territory. When exploration ceases, the game comes to a stop ...

For some time it has been clear to me that the importance of exploration has remained largely unexplored by game research. Sometimes it is used as a subset of a larger theory or analysis. However, I believe there are strong reasons for giving it more attention.

The case I want to make in this paper is that exploration is an essential part of computer games. I will concentrate my argumentation on exploration as a basic drive for playing computer games. To achieve this I will look at exploration in computer games from two different perspectives: A player perspective and a system perspective. The argument is that each perspective is a different set of optics for the perception of the exploration of the game. The system perspective denotes the *rules* necessary to play a game, and the player's exploration of them. The player perspective explains the phenomenological game experience, where *meaning* is central to the exploration.

Succinctly, my argument will be as follows: All computer games start with the player building a state of tension (a conflict), which gradually subsides through the ongoing exploration of the game universe. A computer game is characterized by an ability to support different optics of explorative activities. The primary goal of this article is the description of those two sets of optics.

Keywords

Exploration, games, system, player, meaning, rules, logic, interpretation, optics, control, understanding

INTRODUCTION

This paper will present a new theory on how to understand and analyse computer games from an exploratory perspective. Initially the interest in the concept was inspired by how exploration seemed only to be mentioned in passing by several game researchers. This paper will devote more time to the subject in order to examine how we can explore games in different ways, and establish a taxonomy that describes this process.

It is my hope that the theory on exploration in games will facilitate the solution of the conflict between ludology and narratology. Over the years each tradition has claimed the prize for at last understanding and explaining computer games. The theory of ludology and narratology encounters several problems when the exercise of understanding computer games is embarked on. First of all, the theories don't really cover the majority of computer games but focus on specific genres. Ludology seems to have its strength in explaining and analysing the action and strategy of the game genres, where the system and its rules are the focal points. Narratology, on the other hand, is better suited for grasping the dynamics of the adventure genre, where a meaningful and engaging game experience is created through a carefully constructed story. This gap between game genres is not a very satisfactory outcome, as we still phenomenologically conceive these game genres to belong to the same area: computer games. They must have some commonality, and although we may end up appreciating their differences, when analysing games through for example the distinction between Emergence and Progression games [9], it does not answer basic questions like: What are the basic structures of computer games? What is in them, and what motivates us to play them?

I suggest that the foundation should be the explorative activity found in all games. The explorative activity should not be understood as one homogenous entity but rather as an activity, which draws on different optics. In relation to computer games I will concentrate on the optics of meaning and rules.

THE SIGNIFICANCE OF EXPLORATION FOR HUMAN ACTIVITY

Initially we can ground the concept of exploration with George Kelly's personality theory, and support the claim that computer games on an overall level can benefit man's exploration. Looking to psychological theories we can gain very different takes on how to describe individuals. Personality theories are still unsafe waters with Freudian connotations attached to it. However, I will draw on a modern theory on personality by Kelly [10]. He focuses on the individual's construction of a situation based on beliefs, attitudes, and experience. Man builds a perception of the world through constructs, and this anticipation channels our actions. According to Kelly the individual construct through templates or patterns the world so that it is meaningful to him. He stresses that the individual is constantly testing and exploring the surrounding world to maintain an adequate perception so that he can act appropriately in a given situation. The basic metaphor and starting point for Kelly is *man-as-scientist*. He states that:

"Might not the individual man, each in his own personal way, assume more of the stature of a scientist, ever seeking to predict and control the course of events with which he is involved. Would he not have his theories, test his hypotheses, and weigh his experimental evidence." [10:p.5].

This continuing exploration of the surrounding and testing of propositions is impeded by the threat of "damage to the system that apparently will result from the alteration of a subordinate construct" [10:p.9]. Some constructs are more easily challenged than others, in essence related to the duration of time between action and consequence. For example, predictions about life after death are less prone to alteration than "I do not get burned". The last construct would be changed when I touched a stove and got burned. Furthermore, Kelly stresses that a construct must be testable, useful, and practical – a construct is

tested in accordance with its predictive power. In Kelly's perspective the constructs of life are arranged in dictomies and in a very rule-like fashion.

Kelly's basic framework give us a way for understanding that exploration is an intrinsically motivating and inherent activity in Man's life. It is therefore indeed natural to approach computer games from an exploration angle, as games seem so intrinsically motivating and fascinating [13]. Furthermore other media do not surpass the popularity of computer games and the devotion exhibited by players. Computer games should have something to offer in relation to our natural given exploration and when we look more closely at some of the properties of computer games, we find compelling evidence that this is indeed the case. In computer games we can explore our constructs in a safe environment, with fast feedback, and the opportunity to alter our constructs [5]. The ultimate goal is control of surroundings, understanding these, and ultimately survival. Computer games as safe environments for exploration is a result of computer games as virtual universes. A question that demands an answer is the relation between life and the game universe. Although Kelly probably did not play computer games his definition of life makes room for simulations like computer games. According to Kelly, "Life is characterized by its essential measurability in the dimensions of time and its capacity to represent other forms of reality while still retaining its own form of reality." [10:p.8]. This definition encompasses the experiences in simulated worlds although the experience is not necessarily as complete an experience as other human activities.

To summarize computer games on an overall level seems to share properties with Man's exploration of life in general, and exploration is central to Man's existence. Computer games on a very basic level offer a safe environment for exploring new constructs, which is usually intrinsically motivated.

DEFINING A SYSTEM POSITION AND PLAYER POSITION

We can basically analyse computer games from within or from without. When we look at computer games from within we describe the game proper, as detached from a subject. On the other hand an external perspective on computer games implies a subject - someone who perceives the computer game.

I will use the term *system position* to refer to the inner perspective where the game is understood on its own merits laying bare its most basic self-sustaining structure. The system position assumes that a game is a separate instance in the world, which is objectively understood. In this perspective we find the classic definitions of what a game is: A system with clear rules stating specific variables and outcome of these through player manipulation. The computer game may or may not have some bearing on real life (see Juul [9] for a discussion). From this perspective there is nothing wrong with two computers having a good game of *Return to Castle Wolfenstein* (2001). A computer is perfectly capable of performing the necessary rule-governed actions. It simply performs a simulation of a given situation based on the rules of the game universe. From this perspective a game where you play with or against a computer is in principle as awarding and rich as a game against a computer. The computer handles the rules although these may imply a complexity in actions and outcome that may make the concrete design of AI an overwhelming task.

If we assume an outside perspective on games, a *player position*, we are suddenly able to appreciate other qualities of the game experience. Here the game can be perceived very differently, depending on the player's properties

(experience, genre, mood etc.). From this perspective it is more appropriate to talk of a *narrative perspective*, the game is constructed as part of your everyday life [5]. From this perspective the player constructs a meaningful narrative, which is the game experience as we subjectively experience it. The subjective game experience cannot be conceived from a system position but necessarily entails a player's meaningful construction of what the game is about. The importance of the player position cannot be overestimated. The player position describes how characters, plots, competition, social dynamics, objects, and events in computer games are made meaningful. For example, consider this example taken from a net café in Copenhagen in 2000. A male player is at a net café with some friends playing *Age of Empires II* (1999). They all have some experience with the game, and know the basic rules. However, they have not played a lot online, and faith will have it that this will be a night to remember. The goal is clear – they must win. The first battles online go without a hitch. However, after a couple of games they start out on what turns out to be a 5-hour epic battle (3v3 players) on the notorious map called black forest. For this game the goal is also clear: to win. During the game tension builds and change from a mere: Who will win to several sub goals supported by other passing players' comments, and collaboration between the players. Two of the players lose their base, which is normally a sign of defeat. However, the last player is doing well, not inclined to give up. Furthermore one of the opponents is a Swede, a nationality that is traditionally a 'sworn enemy' in real life. So, despite the gloomy prospects, they stay in the game. The goal is not to win but to stay in the game, rebuild the base – hang on. This game experience runs counter to what the players have learned about the rules of the game. Despite the fact that they would normally have lost, they hang in and redefine the game experience.

From the player position the system is not just a system but is understood in reference to other systems. The rules are not just rules, but rules are misperceived, bent, or changed [19] For the player the monsters in *Doom* (1993) are real in the game universe, and not real otherwise, but still have a real bearing on the player's experience, although not necessarily the impact of a real monster – but the experience is real, with real consequences [2]. I may have bad dreams, be scared, tell about a particular spectacular kill, or feel guilty for shooting the monster. These consequences derive from the player's perception of the game experience – the process of making the game experience meaningful.

From the player position computers cannot play a game in the sense of making different game elements meaningful. Computers do not make a narrative perception of the game experience, and will not act differently based on context, mood, or experience, unless this is clearly described in rules. They are not able to do what can be summarised as ascribing meaning to the game experience.

The purpose of presenting these two analytic categories is twofold, first of all to be able to identify game genres and specific games that lend themselves to different exploration optics, secondly to describe and analyse a game experience from specific exploration optics without losing the other perspective, in the end giving us a more complete picture of the game experience. In a player perspective your range of exploration is more open, flexible, and subjective, whereas the exploration in a system position is more closed, finite, and objective.

Before explaining the optics further I will describe two classic games, which will hopefully contribute to clarifying the explanation of exploration, and which can be initially modelled as follows:

	Optic	Knowledge	Tension	End goal	World
System position	Logic	Rules	Game objective	Control	Simulation
Player position	Interpretation	Meaning	Player's objective	Understanding	Game

Model 1: Exploration in computer games from different positions:

Rock-paper-and-scissors has a basic game structure, where you have simple relations between three variables. From a system position the *rules* are in focus, which means that the game will end, when we have figured out the rules by using primary logic. There is a constant flow between screen representation and the mental construction. When the rules stop to challenge us, and change our constructs of the world or, more down-to-earth, our game experience, the game is over. This is quickly done in *Rock-paper-and-scissors* if we approach it from a system position. As a matter of fact, you learn the rules within the first couple of games, and the next game will not in itself enrich or change our constructs of the game and the world. This exemplifies that a game cannot be properly described from a system position. You quickly explore the system and its rules, and from this perspective the game becomes boring – however, *Rock-paper-and-scissors* is not trivial from a player position.

From a player position, it is possible to set up other tensions, which evolve around the exploration of meaning. From the player position you ascribe meaning to the game experience in different ways. One of the most popular and successful means is the use of social relations, a game of knowing the opponent –you will never explore the depths of another person fully. Here the *meaning* you attribute to the other player and your actions in the game are of paramount importance. You could conceive endless other meaningful tensions to attribute to a specific game, for example the simplest drinking game, evolving from the fact that there are beers involved. From a player position there remains room for exploration, but from a system position the exploration is finished– you have explored the rules in depth.

In *Doom* (1993) you learn to fire a gun, handle new weapon types, use different movement patterns, slay different monsters etc. When these rules are explored you would expect the game to become boring. However, it is not enough to know the rules, which for example Sherry Turkle [17] proposes, when she talks about 'beating the game designer'. We explore the game universe, not in such a way that we know the game designer's ideas, or how the story in the game ends, but simply to gain better control or to understand the game better. You must also internalise the rules and be able to control them to such a degree that they are predictive. The predictive power is an important aspect of the game experience from a system position as the player can often quite quickly learn the game's rules. However some game rules have emergence quality. A game with emergence quality is characterized by a set of rules resulting in behaviour that is not easily deduced from the rules a priori. You need to play the game to explore the rules fully, and that ensures that you can play the game longer than a game, which lacks emergence quality. The more pronounced the emergence quality of the game becomes, the harder it is to strictly examine a game from the system position. Emergence is in the borderland between the player position and the system position, as emergence

is in principle independent of the player, but often it takes a 'specific' player to identify these emergence qualities of a specific game. In *Age of Empires II* (1999) different strategies are attributed to certain star players that 'invented' this specific strategy, for example Smush¹, which was only discovered after thousands of hours of exploring the game rules live (while playing). So even though it makes good sense to analyse and describe rules from a system position, the internalisation and prediction power of the rules are often examined in atypical or detached game situations, which are a result of the player's unique and transgressive ascribing of meaning to certain game elements, for example reversing the monk or town centre in *Age of Empires II* (1999) from defensive to offensive. Often the predictive power of the game rules is best tested 'outside' the game universe affordances when you find yourself in untraditional situations.

From a player position you should neither underestimate the power of context in playing computer games (time and space). It is not the same game I play when I play it the first, second, third, fourth and fifth time. Nor is it completely different. It is a state of flux, where my exploration of the meaning and the rules in the game draws on prior experience, genre knowledge, setting etc. This does not mean that we all play different games, and experience them in completely different ways between sessions. In a post-modern nightmarish vision this could be the case, but in reality our construction of the game experience is bound by past experience, affordances, genre expectations, and cultural values so we often end up with somewhat similar experiences. Each game session starts with the framing of the situation, and even more importantly the setting of a tension. This tension can be more or less controlled by the game universe depending on the game, and this initial tension is very important for the game experience as it frames the way the game will be played.

THE TENSION SET-UP IN COMPUTER GAMES

When we think of different games like *Tetris* (1987), *Age of Empires* (1999), or *Baldur's Gate* (1998) from a system position it is normally accepted that we have some kind of initial tension, a conflict [4][14], perhaps most precisely stated as disequilibrium [16]. Most games have more or less clear affordances for establishing this disequilibrium: A situation of tension afforded by the game rules, an overall setting that frame the events made meaningful by the player; or maybe an initial story is used to get things going. In *Baldur's Gate* (1998) the initial story starts with your mentor being killed but even in computer games without a story like *chess* it is easy to appreciate that something is amiss. The setting is a medieval battlefield, where the pieces are forcefully moved towards you. In *Tetris* the simple rules sets the situation of tension, with pieces flying from the sky, demanding your attention – you must restore equilibrium. So tension is setup in different ways, and mostly a game uses more than one technique, where as player you construct the tension in close collaboration with the game's rules, setting, and story.

From a player position the construction of disequilibrium can take different forms from those mentioned above, which are sanctioned by the game. So even though the computer game from a system position or player position can afford a specific tension the player can ascribe in principle idiosyncratic meaning to different game elements, and thereby construct a tension that is only vaguely

¹ Is a rush with preferably the Saracen civilization, where you early on mass up monks.

related to the game. However, the tension afforded by the game is often the starting point!

For example a player may decide to stop fighting in *Counter-Strike* (2000), just staying alive, decide to get as many tags on the walls as possible, thrash talk everybody, or wander the game in the shape of a cow. These are all anecdotes from the *Counter-Strike* (2000) community. On the other hand it is also obvious that many use the setting of terrorist and anti-terrorist to construct a tension.

Another, perhaps even more intriguing example, are Muds and MMOGs where according to Bartle [1] you have different player types: killers, achievers, explorers, and socialisers. From my perspective these are all degrees of exploration where the killer explores a specific event, namely the killing part. The achievers are more into seeing just what happens when I reach the next level or how it will feel when I reach Level 32. The socialisers explore the social area of everyday life, which we never fully understand. The increasing emphasis on the social part of gaming, both from a theoretical perspective, and concretely in games with multiplayer functionality would suggest that this is the area which we will never fully explore. From anecdotal evidence it also seems that this is the real holding power in online games combined with a game universe, which is never fully explored [6].

In my perspective they all setup different tensions, which were not initially afforded by the game as such:

- For the killer the game is not over until he has killed everybody.
- For the achiever the game ends when he has achieved all possible game objectives.
- For the socialiser it ends when he knows all people fully or is alone.
- For the explorer it ends when he knows all of the map or physics in the game universe.

However this doesn't really explain what games are, why we play them, and why we keep playing them. Most people do not continue to play until they have killed everybody; there are always more people to talk to; most people do not reach the highest level, and they get tired of exploring the game universes before they have seen it all. The same holds true for other games, in *Doom* (1993). Even though you may find it the most interesting part to kill all monsters, get to the end, play with other people or explore the entire map – people stop before this happens. If we can explain why people stop playing, it will be an important element of understanding what games are. Of course there are simple parameters like poor interface, lack of time, price, technical issues, poor language standard, outside pressure, or too hard levels but these do not apply to the game experience as such.

However, I believe you stop playing a game, when you have *explored* the game till the end, an end that *you* have defined. So you can setup the tension in accordance with the rules of the games (system position) or ascribe more or less idiosyncratic tensions (player position). When you setup the tension from the system position the objective of the game is your pivotal point, for example conquer Normandy, save the princess or get a hi-score. These different objectives are given more or less by the specific game, and follows easily from the rules and game description. However, from a player position you can setup new tensions, which do not necessarily follow the game, for example beat five players in a row online in *Age of Empires II* (1999) or build a city with only one police station in *Simcity* (1989).

The next question is how this exploration precisely takes place from the different positions? I will start with a look at exploration through meaning, and then continue with exploration of rules.

EXPLORATION THROUGH MEANING

I have distinguished between a player position and a system position to clear the way for the two different exploration optics. From a player position through interpretation we ascribe *meaning* to a given computer game, and thereby set a tension –ascribing meaning becomes central to the game experience. The ultimate goal is to understand what goes on in the game universe, to make it meaningful through interpretation of more or less dynamic game elements. This process is represented as a narrative, which can be defined as a string of events made meaningful by a player through combination of pre-existing knowledge and the game experience.

The potential for constructing a narrative will always be present in a computer game but a computer game can support the narrative process to different degrees [5], and is related to the player position. The main forms of supporting the narrative process in the game is the ‘setting’ and ‘story’, which are different ways of presenting meaningful elements to the player.

A setting simply entails a framework, a background for the game experience, for example a fantasy setting. A setting is non-linear and relies heavily on the players pre-existing knowledge of fantasy, and interpretation is necessary to make the game meaningful. The player perceives and acts through a fantasy frame. For example, magic is quite natural and is expected in a fantasy setting, whereas it would seem incongruous in a science-fiction setting. Still when faced with a setting, the player has a lot of options for constructing a meaningful narrative in relation to the game, and is not bound in the same way a story would bind him. The setting is more directive than restrictive.

When a computer game draws on a story it can be done to different degrees ranging from a simple introductory story, over evolving chapters to integrated story lines. In a story, the events, characters, plots, and objects are made meaningful through a storyline. The game experience in essence becomes linear as the story controls how the different elements are meaningfully connected. In a game based on a linear story the player’s exploration of meaning is often to some degree the exploration of the designer’s intention. Some computer games draw very heavily on the story like *Myst* (1994). Meaning becomes the dominating optic for exploration.

The concrete process of exploring the meaning in computer games can be classified in five circular steps inspired by David Kolb’s [11] experiential learning circle, and hermeneutics [12] especially Gadamer:

- Experience elements in the game universe (concrete experience)
- Observe and reflect on the elements (observation/reflection)
- Compare with prior experience and construct (interpretation)
- Test attributed meaning of the elements in game universe (testing)
- Reconstruction of continuing narrative (narrate)

The process of exploring meaning can be described as an interpretation of the representations that unfold on the screen, the player’s actions, the given context, and pre-existing knowledge. The archetypical metaphor for exploring

meaning is the slow progress and experience of playing a typical adventure game - the endeavour to uncover and construct a meaningful narrative from the game experience. The end goal of this exploration is ultimately to understand the game experience from your unique position as a player.

Depending on the computer games form of supporting the narrative process (story or setting) the game is more or less linear. When the game is encapsulated in a linear story the player has little choice of exploration optics like in *Myst* (1994), and similarly when the game is completely stripped of meaningful elements the player is also deprived of the choice of exploration mode. In chess and Tetris the player's options of constructing tensions on their own are limited, except for the social dynamics that can be ascribed from a player position in even the simplest of games. The game evolves around the rules set-up from a system position. These computer games can of course work as games, and do work very well, but it is interesting that we see the computer games of today merge the two different kinds of exploration - letting the player choose his explorative optics for the game.

EXPLORATION THROUGH RULES

I have presented the system position as the 'self-sustaining structure' of a computer game. It is from the system position that we explore the rules of the games, and although this entails a player it still makes sense to treat it as 'objective' because the rules per se are static. They do not depend on the player's perception although the game may open up for a negotiation of different rule sets, and changes of rules is an important element, especially in non-electronic games [19]. Intrinsically, the rules are static but it is an important point that when combined they can produce emergent behaviour which is an important drive for the exploration of rules. It is not enough to know the rules - you must be able to a certain degree to predict action and events through the combination of rules. The only way to do this, as the rules get more complex is through systems with simulation capacity like a computer game (see also Wright [18] for a discussion). The observation, reflection, construction, testing, and internalisation of the rules of the games are the trademarks of a good strategy game. Exploring the game through rules results in emergent game universe responses - the player cannot always anticipate the reaction of the game environment, but can improve his ability to predict the response. Despite heavy play testing and game balancing. In *Age of Empires II* (1999) it became clear when the game was released that the Brits were too powerful. This imbalance was a result of a counter-intuitive strategy, and a special trait of the Brits. In the game, stone is a very precious resource, whereas wood is usually in rich supply. You start the game with a towncentre, which can produce workers, who again are used to collect resources and construct other buildings. The towncentre is a very important part of survival - if you lose it early you will often surrender. Therefore the towncentre has good defence and attack bonuses. Later in the game you can build more towncentres, and the Brits can do this very cheaply. The results were that the Brits planted towncentres all over the map, and used these defensive buildings as attack buildings. Then a patch was released where instead of it only costing wood to build towncentres, it also cost some stone. The change was insignificant from the outside, but in the game it resulted in the balance being restored.

So it is not enough to know the rules; you also have to test them in combination with other rules. This process is not driven by interpretation like the exploration of meaning but rather through logic and principles, where you

use traditional logic. Logic occurs when you induce from a given action a certain set of rules, and afterwards when you deduce certain probable outcome based on the rules [3]. It is on the last step that exploration in computer games is primarily focused, especially in the strategy and simulation genre, which has rules with emergence quality. Also rules must be internalised because it is not enough to intellectually know the rules. You must also be able to act on the rules.

We can describe the process of exploring rules in five circular steps, which have parallels to David Kolb's [11] experiential learning circle.

Experience the rules of the game universe (concrete experience)
Expose and observe the rules in action (observation/reflection)
Describe and construct the rules in mental representations (logic)
Test representations of rules in the game universe (testing)
Internalise the rules (internalise)

The end-goal of exploration of the rules is control opposed to meaning, where through interpretation you make the game experience meaningful, come to understand the game experience. The chess pieces are meaningful as a result of our cultural expectations, but we have no desire or need to know why a castle moves differently from the queen, but you need the rule to control the system. In chess we explore through the rule optics, and that is the focus. However, meaning do play a minor role in the game experience chess offers, which can for example be seen by observing how the alteration of chess pieces to Star Wars figures or Greek gods can bring some extra excitement to the player. On a similar note, it might not make sense that you can use your towncentres in *Age of Empires II* (1999) on the offensive almost as effective as a castle – but you will learn the rule, so you can control the game universe. The connection between rules and control is also what leads to the strong competition in computer games optics, as you can compete within clearly marked lines and have clear success criteria. On the other hand, the player position is often what elevates the competition from being 'just a game' to a fight for life or death, an investment of emotions. The competition element is therefore also often not a natural part of games that draw on stories like *Myst* (1994), where the ascribing of meaning through interpretation is central. From a player position you can construct similar tensions that the game rules set up, for example who finds the best magic item first, but the game as such is about exploring meaning, and understanding the game universe. It is hard to say that I won because I understood *Myst* (1994) better than you.

We can distinguish between different types of rules that can be explored as inspired by Bernard Suits [15]. I have until now focused on the 'game rules' and neglected the 'physical rules'. These two levels can both be explored but usually the focus is on the 'game rules. The two terms can be defined as follows:

- The physical rules set the frame for the game experience. They are often implicit and not described but are taken for granted, for example that you can't fly or walk through walls in Halo. Although it is rare for the physical rules of the games to be explored it happens. For example,

there is a movie about Halo, where the players explore the physics of the game [8].

- The game rules describe the gameplay. These rules make up the game as we describe it in a manual for a game, and can be split into two kinds of rules described by Suits [15]: The directive rules outline how to achieve a given end to do a specific thing (focus on your aim to improve the hit rate). The restrictive rules describe what activities you should not engage in (do not run to improve hit probability).

The difference between physical rules and game rules can be described by the following example. In Age of Empires fog of war is an important feature. When play testing, some players did not explore the fog of war, and at one point it became clear that they thought it was water, and not fog of war [7]. They misinterpreted the fog of war as a physical rule instead of a game rule. The game rules were to have fog of war to make scouting important. Instead they saw it as a physical rule that said you cannot walk on water.

The rules of a game are to some degree described in all games but even so, the player does not as such internalise them directly. Instead the player explores the different rules and tests them in accordance with the model presented previously. The player has what we could call some working rules, which are the player's present perception and internalisation of physical rules and game rules. These rules are constantly being refined and developed as long as a game offers new experiences. A new experience should not be seen necessarily as a completely new computer generated experience but could be an earlier experience repeated in a new context or revisited by the player with a new grasp of what the experience means.

CONCLUSION

The importance of exploration is captured well by the role that cheating plays in game culture. Whether it be from a system or player position you are trying to circumvent the normal route to control and understanding. It has always been one of the most controversial areas with each player having different claims: Cheating ruins the game experience; it adds to the experience, it takes me to new places, etc. With online gaming it has received new attention, as we are several players exploring the game and we are all affected by one player's actions.

The clash between those that feel that cheating ruins the game and those that find it a natural ingredient of gaming is a conflict between different forms of exploration, where the cheater wants it to be so effortless and fast as possible, the non-cheater wants to feel he is in control and that he masters all facets of the game. They both see exploration as the end-goal but for the cheater the means justifies the end.

I will summarise my points, and stress a few additional points. First of all, I have stated that exploration is a given part of the life of Man, and to view computer games from this perspective is constructive. Secondly, I distinguish between a system position (rules) and a player position (meaning) as different optics for exploration. These different positions have different end goals and ways to create tension in the game. I believe there is additional optics but it has not been possible to go into for example the importance of eye-hand coordination, which is obviously an intriguing element of games. The third thesis I want to stress is that the player position and system position should not be conceived as separate. They are different perspectives of the game

experience, and some computer games lend themselves more or less to one perspective. All computer games entail rules to some degree, and similarly all games draw on the player's interpretation to create a meaningful experience. I believe this paper's most important contribution is to provide an analytic frame, and in the long run make it possible to approach games as learning experiences.

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