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A Tale of Two Games

A Tale of Two Games: Football and FIFA 12

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Abstract

In this chapter I compare the game of football with the sports videogame FIFA 12, with the intention of understanding how the divergences between both illuminate key aspects of game ontology and play theory. This chapter will bring together game studies and sports philosophy, with the purpose of questioning how the simulational convergence between the sport of football and the video game *FIFA* is not only utopian, but also extremely productive. By trying to simulate the game of football, *FIFA* has created a new game, one that can not only illustrate the nature and evolution of games and sports, but that can also cast interesting new light on the questions of the importance of computing for games, and the emergence of cultures around the activity of play.

A Tale of Two Games: Football and FIFA 12

Introduction

Who hasn't been a sports star, at least once in their lifetime? In the playground, in the backyard, in suburban sports halls, we've all been a star, feeling the cheering of the crowds, the rush of adrenaline of knowing that we are the best, and that whatever challenge is out there against us, it will be just too easy. Playing sports casually, and playing sports videogames is about performing the impossibilities of professional sports, letting us dream the possibilities of being our heroes.

Computer games have for a long time attempted to extend our imagined experiences as sports stars. Sports games promise not only that we will be able to be a star, but also to manage the clubs we root for, raising them from anonymity to the ranks of history. Sports games are about the promises of living the narratives of professional, commercialized sports.

In this article I want to explore the relations between one of these sports, football¹, and the currently most popular computer game franchise based on that sport, EA's *FIFA* series. My intention is to analyze and question how the digital game simulates the sport, and why that simulating process affects not only the nature of both games, but also the cultures developed around them.

The comparison between the sport of football and the computer game *FIFA* will be limited to three points: the rules, the tactics, and the individual player. There are obvious differences in the spaces where these games are performed, as well as in the influence of the different cultures around each game. It is obviously not the same to attend a football match in F.C. Barcelona's Nou Camp than to play, or even spectate a match in the simulated version of that pitch in *FIFA*. However, in this chapter I want to take a closer look at the game itself, and therefore I am sidelining some important observations that could be made with regards to the cultures and spaces of these two games.

¹ By football I refer here to the sport known as soccer by a number of countries in which the game is less important than autochthonous games also known as football. Football in this article is the game played by Leo Messi, not by Tom Brady.

I believe however that the more formalist approach I am taking here will allow for an explanation of some of the divergences we might observe between these games, without necessarily resorting to the obvious fact that one is a sport played in the physical world, while the other one is a game, or e-sport, played in and thanks to a computing machine. At stake here, with this formal approach, is a deeper understanding of the questions of simulation, and the nature of sports video games in the way they relate to their real life references.

Furthermore, in this article I want to suggest a way to approach sports from the multi-disciplinarity of game studies². Even though game studies has ambioned to be the field that studies games on its own, we have seldom focused on sports as interesting manifestations of games³. My purpose with this article is not to right this wrong, but to show that in a humanities-based game studies approach, the study of sports is not only fruitful, but also fundamental for broadening, and questioning, what we consider games are and how they work⁴.

The method I will use to understand the relations between both games is based on the critical and reflective observation and experience of the games⁵. Since I am not a professional football player, my observations on professional football will be based on my own experience and insights as a spectator. As a spectator, I have strived to become an illustrated one, following blogs on football training and tactics, reading specialized books and magazines on both the sport and the processes of elite sportsmanship. I have watched matches of every major league regularly, trying to understand how the game varies across cultures. As for FIFA, my observations will be based on extensive play sessions, focusing on the 2012 iteration of the franchise.

There are limits to this method, namely those derived from the lack of empirical data outside the humanistic approach taken here. That is an inherent risk in this type of study, and thus my conclusions ought to be read within the tradition of humanistic game studies. Also, some

² By Game Studies I am referring to the discipline described in Aarseth (2001).

³ A brief reference list of sports and video games related literature can be found here: <http://taylor.com/teaching/e-sports-and-pro-gaming-literature/> (accessed 11/3/2012)

⁴ Of course, the question of the nature of sports has been address by the philosophy of sports and even by sports sociology. Sports are, however, largely absent from the domain of game studies, particularly if compared to topics like narrative or politics.

⁵ See Aarseth (2003),

of my examples are taken from my personal experience watching F.C. Barcelona play, both live and on television. This is also problematic, as I am not only a supporter but also a member of the club. However, the recent and historical successes of the club, and the importance of the tactical innovations that is introducing to modern football makes FC Barcelona a perfect example for some of the reflections on tactics and the importance of individual players⁶.

This chapter will bring together game studies and sports philosophy, with the purpose of questioning how the simulational convergence between the sport of football and the video game *FIFA* is not only utopian, but also extremely productive: *FIFA* is a different game than football, and in that difference new cultures of sport and leisure have a place to emerge. By trying to simulate the game of football, *FIFA* has created a new game, one that can not only illustrate the nature and evolution of games and sports, but that can also cast interesting new light on the questions of the importance of computing for games, and the emergence of cultures around the activity of play. To these questions I will pay attention in this article.

Football, simulated

One of the most fascinating outcomes of the commercial pressures on contemporary computer games franchises is the compulsive need to annually renew their products, adding more features with each iteration. In the *FIFA* franchise, like in most products under the EA sports label, the drive is to make the games *even closer to the actual game*, that is, to make the computer game converge with the sport. For instance, the 2012 update to the game includes not only improved graphics and updated team rosters, but also two fairly interesting technical innovations: “tactical defense”, that makes the defensive phase of the game interesting and more coherent with the rest of the game, and the “impact engine”, an improved physics system that focuses on simulating with detail individual players’ physical attributes.

These two innovations are examples of how *FIFA* wants to converge through computational simulation with the reference sport of football. *FIFA* wants to be a *realistic*

⁶ Even though it is a journalistic text, Hunter (2011) is a reference text for understanding the culture and importance of F.C. Barcelona in modern football.

simulation of the game of football. In this chapter I will briefly frame what I mean by simulation, and what is the difference between sport and games. For questioning the relation between *FIFA* and football, the ontology of these two games needs to be clearly stated. Only by doing so it will be possible to make statements about *realism*, or about how the divergence between the two games is significant for game studies.

This is my starting assumption: both *FIFA* and football are games. In fact, *FIFA* is a simulation of the sport of football, that is, a game that simulates a sport, a “sports game⁷”. What does this mean? Aren’t all sports games? Defining sports has a long tradition in academic theory, from philosophy to sociology and game studies. It is interesting to reflect on the nature of sports, and how that nature explains the relation between football and *FIFA*.

Following classic works in play theory (Schmitz, 1988; Suits, 1988), I will consider that all sports are games, but not all games are sports (see also Sutton-Smith and Avedon, 1971, pp. 239-248). Bernard Suits addressed this issue in his philosophical work on sports and games⁸. For Suits, games can be said to have a number of elements that are particular to their being, that is, that define them. All games, according to Suits, have a goal, means for achieving the goal, rules, and they encourage a lusory attitude, a playful attitude of “staying in the game” towards their experience. Football, both in physical life and via the computer, fulfills these criteria. Thus, *FIFA* and football are both games. Even in the most comprehensive formal approach to the nature of games we would not have any problem considering these two as “games”.

However, it is also true that football is a sport. What is a sport, then? Following Suits, a sport can be defined as a type of game that presents specific characteristics, some inherent to the game (competitiveness), some of them culturally and socially determined (the game must have a stable following). Suits provides an interesting framework for defining sports, suggesting that any game that meets four concrete requirements can be considered a sport too. These

⁷ It is possible to find examples of sports games that do not simulate actual sports. Ramiro Corbetta’s *Hokra* is an example.

⁸ Other work on sports and games can be found in the tradition of the sociology of sports. However, this paper takes a more classical humanistic approach to the question of the ontology of games, and therefore Suits will be the initial reference point.

requirements are that the game is a game of skill, that the skill is physical, that the game has a wide following, and that the following can reach a certain stability (Suits, 1988, p. 43).

While all these criteria seem appropriate, Suits' interpretation of "skill" is a highly embodied one, disqualifying games like chess from being considered sports. While Suits' interpretation is appropriate for understanding Olympic games, the notion of physicality is limited when trying to understand phenomena like e-sports. Suits' notion of physicality needs to be expanded beyond the classic bodily performance feats. Playing *Starcraft* or *Counter Strike* at the highest professional level is as physically demanding as playing many classic sports. The physical and mental training required for performing on the top ranks of these sports are equivalent to those required for driving Formula 1 cars – again, a case in which the body *endures* more than *performs* physicality (Connor, 2011). Physicality is appropriate also in the case of digital games, as they require training and performance of bodily abilities in order to excel at top competitive levels.

One of the most interesting aspects of Suits' definition is its demand for steady and stable support for the sport to exist. In fact, this acknowledges that games become sports not only because of their form, because of their appropriate *design* for agonistic competition, but also because people find them interesting. That is, sports are culturally defined as much as they are formally defined by the nature of the game.

Every sport has cultures that help define it. The culture of football, particularly the European, media-driven culture around contemporary professional football, explains a number of rituals and rule changes that we are witnessing transform the game. Two of the most definitive changes in modern football rules were suggested for audience reasons, with the intention of creating a more thrilling game: all European leagues now award 3 points for a victory, and 1 for a draw, encouraging offensive football⁹. And goalkeepers can no longer hold the ball in their

⁹ Introduced in 1981 in England and popularized by the 1994 World Cup. For a mathematical analysis of some of the implications of this rule, see Bernholt, Gülich, Hofmeister and Schmitt (1999).

hands when it voluntarily comes from a teammate, forcing keepers to play with their feet and be more of a field player¹⁰.

There are other elements of football culture that shape it as a sport. The importance of audiences in the configuration of club discourses and politics, is fundamental for understanding modern football (Goldblatt, 2006). In fact, one of the world's most important clubs, F.C. Barcelona, prides itself in being "more than a club", voluntarily embodying the national identity of Catalunya¹¹. Football thrives as a sport in Europe because it acts as embodiment of local and national politics, as a source of identity that is projected towards teams and players, even in these days of corporately commercialized sports (Kuper and Szymanski, 2009).

Football is then both a game and a sport. It has all the elements that make it a game, but it also has competitiveness and a sustained culture around it that impacts its development and experience. The next question: is FIFA a sport? This can only be answered with what may be an opt-out: FIFA is a sport in the relatively limited world of e-sports, and even there is not one of the most popular fixtures (sports games are still shadowed by other competitive games). The key difference is that the culture around the game is still not strong enough in creating the cultural markers that distinguish a game from a sport. There are no stars, no following of players or teams, and no evident spectatorship, aside from its relatively marginal position in e-sports. This does not mean that the game is played less competitively online or in tournaments, but that it is still played as a game. There are traces of it becoming more of a sport, particularly with certain support from EA in the shape of prizes and competitions. But as of now, FIFA is a (computer) game based on a sport.

FIFA is based on football, but what does that mean? The answer is deceptively simple: FIFA is a *simulation* of football. The topic of simulations is rather old in game studies (Frasca, 2003, Aarseth, 2004). Paraphrasing Frasca (2003), a simulation is the replication of the crucial elements of a system in a different system, constraining the properties and behaviors of the

¹⁰ The back-pass rule was introduced in 1992.

¹¹ The notion of Barcelona being more than a club was born during the Franco dictatorship, as a way of expressing nationalist sentiment under the "protected" discourse of play. In these corporate times, Barcelona has exploited that notion by associating its brand with Unicef (Hunter, 2011).

simulated to the specificities of the simulating system. Even though simulations predate computers, the capacity of computers to recreate any kind of system via software has conceptually conflated computers and simulations.

Computers excel at translating the analog world into digital versions that can replicate to a certain extent the behaviors of the world (Frasca, 2003, p. 223). To create a simulation in and with a computer is to translate the world into formalized systems that a computer can quickly process, producing results. What sports games do, then, is translate the elements of the game into what a computer can process. Sports games are procedural takes on sports via the constraints and affordances of the computer system¹².

Sports games are then simulations of games, that is, translations of analog games into digital systems, which are computable and processed by a machine. Of course, computers excel at the simulation of complex systems like physics, or at performing high-speed probability and statistics calculations. This makes some sports easy to adapt to computers, and more so given the increased trend in quantizing sports and sports performances.

What is interesting in the process of simulating is what is lost in the transition from the human domain to the computer-controlled universe of sports games simulations. As said, a computer excels at performing fast calculations, which makes it possible to recreate not only the complex physics required for football to *feel right* as a computer game, but also the statistical interpretation of the game (Swink, 2009). In FIFA, players have stats, and so do teams. Competition between players is often reduced to comparing numbers and determining, with a degree of randomness, what the result of a specific clash in the pitch will be.

It is not however my intention to bring attention to the increasingly quantized understanding of professional sports, and how sports computer games might be contributing to that process. What I am interested in highlighting here are the implications of simulation in the

¹² For an understanding of procedurality, see Bogost: 2006 and Wardrip-Fruin: 2009. Incidentally, it could be argued that simulated football is an egordic adaptation of the game of football, following concepts coined by Aarseth:1997. Incidentally, it could be argued that much of the aesthetics of sports games are procedural simulations of both the game and the media broadcasting of these events.

process of transformation from analog sport to digital game, and how that might affect the way these games are played.

As said, a computer deals very well with data and processes. It is capable of simulating the rules of a game and to a certain extent the physical environment where that game takes place. One can watch the computer play FIFA, and it will be only marginally distinguishable from watching a proper football match. But those margins matter, especially when interacting with the game.

A computer cannot deal very well with ambiguity and interpretation. It can be programmed to replicate these, but they are often programmed to be artifacts that follow reasonably predictable patterns. And in the case of a sport like football, human judgment is actually a very important factor in many levels of the game, from rules to individual decisions. What the simulation cannot do is to simulate the human judgment that happens when players and referees interpret the game. The computer game cannot adapt to the whimsical readings of the game that a referee might have¹³, or to the talent-driven intuitions that characterize star players (Inglis and Hughson, 2000). To referee, and to play football, is as much an act of knowing the rules as it is an act of embodied exploration of these rules, a process difficult, if not impossible to simulate.

FIFA is a *computerized* football *simulation*, and that is precisely where the divergence between the two games occurs. Football has been designed over time to adapt to human interpretation, while *FIFA* is designed to replicate the physical and quantifiable conditions for the game to be played, within the computational constraints. *FIFA* aspires to become a more *realistic* physical, tactical, and statistical simulation of the game, as well as a simulation of the game *as being broadcasted*. Far from being a critique, this should be read as the source of the divergence between games: the search for realism constrained by what computers can do leads to a game that resembles football, but diverges in notable and interesting ways. Most interestingly,

¹³ Even though FIFA has introduced different referees with different personalities, personalizing the interaction with them. However, in my experience, few players online ever discuss the referee, or even blame him for the results.

it turns a game in which embodied knowledge and interpretation are substituted by procedural literacy (Bogost, 2006).

I will now explore the three domain areas in which the divergence between these two games is mostmost interesting, and what it tells us about the nature of sports games compared to their simulated references.

A Tale of Two Games

In this section I will explore the divergences between *FIFA* and football, in an attempt to specify how and why the translation from real world to computer simulation has affected the core of the game so much that they are arguably different games. To perform such analysis, I will formally approach the game of football from the perspective of three of its core elements: the rules, the tactics, and the individual star players. My purpose with this formal analysis is to be able to isolate how these elements are translated into computing simulation, and how the constraints of the computer have led to a divergence between the two games.

Each of these elements will be defined and illustrated using examples both from my experience playing *FIFA*, and my observations of contemporary football, particularly of F.C. Barcelona. Again, besides my own personal inclination towards this team, there is evidence that its tactical and individual prowess is most likely affecting the culture of the game, the way teams are organized and what fans expect and understand as the beautiful game (Hunter, 2011).

Rules

The issue of what rules are has preoccupied game studies throughout its history (Juul, 2005). Describing the rules of the game might mean describing the game itself, since a game is, at least from a certain level of abstraction, the collection of rules that create a possibility space (Salen and Zimmerman, 2004, Juul, 2005). All games have rules that act as frames for the actions, as well as defining the motivations and even duration of the play experience (Suits, 2005). All games are described, but not defined, by their rules, either as objects (prior to play), or as experiences (rules interpreted during play).

The rules of football are deceptively simple, and well described by regulatory boards (FIFA, 2011). Of course, in this article I am referring to professional football, which is also the frame of reference of EA's *FIFA*. Even though football is a comparatively under regulated game (Olaya, Lammoglia, Zarama, 2010), professional football still has a large number of rules defined by the International Federation of Football Associations. FIFA is a remarkably conservative institution when it comes to preserving the purity of the game (Goldblatt, 2006; Wilson, 2008), particularly with regards to the use of modern technology. The laws of the game are seldom changed, and when changes are considered, they are often tested in lesser international competitions before they are implemented in any of the major leagues, or in the top international tournaments.

In practice, most of the rules of the game are implemented and upheld during play by a referee. Exceptions to a certain extent are those concerning the size of the pitch, the distance between poles, and other technicalities. However, a keen observer of the game knows that before any match begins the referee needs to approve the pitch for playing the game, so even in that case the referee has discretionary power over the game itself.

Referees uphold the rules by interpreting the situations of the game according to the FIFA rules. Most of those rules are open for interpretation; making referees popular figures depending on the ways they interpret actions in the game. From strict referees to more lenient ones, football culture is creating a controversial stardom around the figure of the referee.

What is important for this article is the fact that referees have to interpret the rules of the game in order to take decisions that affect the result of the game. Let's examine some of these situations, starting with the booking system, the cards used to punish players for actions against the laws of the game. In football, the yellow and red cards punish particular behaviors on the pitch, particularly aggressive behavior or play with the hands. A referee must interpret not only a situation, but also the general mood of the game and the ways players have been behaving throughout the game in order to issue cards. Some games are played respectfully, and no cards are awarded, while others are brutal and end up with teams getting players expelled with red cards.

Booking is then one of the areas of the rules of the game that are discretionary to the referee's interpretation of the laws of the game. The way a referee decides to interpret specific

actions of players starts in the FIFA description of possible actions, but it is always the referee who ultimately has to make a choice based on the situation at hand.

Another significant law open for interpretation is the offside rule, more specifically, the positional offside. A player can be in offside position¹⁴, but if he or she does not show interest in following play, the position does not stop the game, hence allowing other players to continue playing. Positional offside depends on a human interpretation of the intentions of a player, and like other interpretational rules, their application might vary depending on the referee appointed to the game.

Though other rules are open for interpretation, and FIFA issues guidelines for the interpretation of the rules, it is ultimately the referee who decides who and when to book a player, and if a player is in positional offside. How have these rules been translated to EA's *FIFA*?

As mentioned previously, one of the core problems that computers face is the simulation of ambiguity. There are significant advances in AI programming that hint at a future where computers will be able to do subtle interpretations of human and non-human behavior. However, *FIFA*, like most other computer games, uses computing power mostly to simulate the physical conditions of the game environment, rather than using CPU cycles on the AI. This is not to say that the game's AI is flawed; quite to the contrary, one of the most important aspects of the *FIFA* games is the way in which AI is used not only to control the rules of the game, but also to give teams and players behaviors modeled in real life. Procedurally speaking, *FIFA* excels at applying AI techniques to the simulation of tactical moves.

FIFA does not excel at the interpretation of the rules of the game. The referee simulator, while greatly improved in the last iterations of the game, is still relatively poor. As far as my own experience and observations of the game go, the offside rule is applied without any ambiguity. If it is offside, it will be refereed as such, with no margin for error, or interpretation of positional offside. When a player is offside, the rule is applied, regardless of intentionality or not.

¹⁴ The offside position is any in which an active player is situated behind the opposing team's defensive line at the moment of a pass directed to him. It is specified in FIFA's laws of the game under Law 11 (FIFA 2011, p. 33).

This leads to an interesting experience of the game. As a player of *FIFA*, I never question the offside rule. Even when I instruct my team to make an offside-based defense, I know that in the case that a rival breaks my defense, the move will be legal. The system is not built around ambiguity or interpretation, but simulating binary conditions: if a player is offside, then it is offside and so will the referee mark it.¹⁵ Otherwise, play will continue. This means that there is a total trust in the referee and the way the rule is applied. This trust affects in turn my play style.

Looking at my own experience, I can see that even though FC Barcelona arguably uses offside on occasions to shorten the pitch and make their high-pitch pressure more effective, I seldom use this strategy when playing *FIFA*, since I know that the way the rule will be interpreted penalizes this approach to play. When playing with the offside rule, a real life team is also playing with the limits of cognition and perception, trusting that sometimes the referee will rule as offside a player that is actually onside, just because the play sequence goes too fast. But in *FIFA*, that ambiguity does not exist, and therefore the offside trap is not as useful as its counterpart is in real life.

The unambiguous interpretation of the offside rule by the computer leads then to different play styles, but also to a different experience of the game, one that requires learning not only the rules of the game, but also how those rules have been implemented, and simulated, by the computer system. A serious player of *FIFA* learns not only the laws of the game, but also the rules of the game as simulated by the computer. A *FIFA* player learns to read the procedures, rather than the personalities that rule the game.

Similarly, the booking system is a rigid interpretation of the rules of the game. In *FIFA 12*, any imprecise tackling will yield a card, and on occasions, using the improved physics engine to block an opponent's progression will be deemed a fault, an action that seldom happens in football. When playing *FIFA*, players learn to understand not how referees think, but how the computer upholds the norms and gives away bookings and faults.

¹⁵ Even though the temptation of technology lurks in modern soccer (by introducing a chip inside the ball to trace its movement), *FIFA* is a notoriously conservative ruler of the laws of the game, often dismissing technical helps in favor of human refereeing (as with the introduction of two extra referees on the end lines to check for goals and fouls in the box).

Interestingly, the referee can act upon actions outside of the player control, in what feels like a most unfair act. In *FIFA 12* the defense system has been revamped to make defending tactical, that is, a matter of upholding the tactical shape of the team while pressing the rivals to retrieve possession. This means that players can directly control one avatar, while command another to provide support, in order to press the opponent with the ball. However, it might happen that the AI controlled avatar commits a foul, even a penalty, under the indirect control of the player. In fact, in Legendary difficulty mode this situation happens relatively often. When the referee awards a foul or books a player that is only indirectly controlled, there is a feeling of injustice. However, it is a fact that is soon learnt and understood: the lack of interpretational abilities of the algorithms that run the refereeing predictably affect the game, its experience, and how it is played.

Summarizing, the rules of the game of football, while in themselves unambiguous, are enforced via the human interpretation of contextual situations. In the process of simulating the game, that interpretation disappears, and instead a set of procedural rules is set in place that replicate the rules, not their contextual interpretation. In order to become a good EA *FIFA* player, one needs to learn not the rules and its ambiguities, but the rules and their certainties. This is not a negative comment, but an illustration of the fact that these two games, even though they are based on the same set of rules, diverge dramatically in the way the rules are interpreted, implemented, and enforced.

Tactics

In the last section I focused on the nature and importance of the rules for understanding both football and EA *FIFA*. However, rules are only one of the formal elements of a game. Tactics are, in the case of some games, as important formal elements of the game object as rules, and they help shaping the gameplay sequence as much, if not even more than the rules themselves.

So what are tactics? In this chapter define tactics as the formal interpretation of the rules as playable by different players, with the intention of optimizing results and skills for achieving the goals of the game. Tactics are formulated prior to the beginning of the gameplay sequence, and

part of the thrills of some games, particularly multiplayer games, is to preserve the formal values of the tactic during gameplay.

Using football as an example, the most popular football tactics are interpretations of the rules of the game that adapt both to the physical constraints of the game (size of the pitch, duration of the match) and to the specific skills of players (FIFA, 2011). Most top tier professional football teams play a 4-4-2, a 4-3-3, or the increasingly popular 4-2-3-1¹⁶ (Zauli, 2002). These dispositions allow for a rational occupation of the space, facilitating defense and allowing for different offensive strategies (Wilson, 2008).

Even though tactics and strategies are deeply intertwined, since strategies are trained set pieces that exploit advantages of particular tactics (Zauli, 2002), I will only focus on the former. While strategies are interesting for this research, having actual access to the trained strategies of professional teams is only a bit less than impossible. Therefore, given the lack of proper data, I have decided to leave aside strategies and focus exclusively on tactics.

I will however look at tactics as a dynamic interpretation of the game, rather than as a passive instance – tactics not as the display on paper before the game starts, but as the form on the pitch that teams struggle to keep while playing the game. I will look not only at a formation, but also at the efforts to keep that shape while playing, and what types of play sequences they struggle create.

In modern football, training has given a special importance to positional play, that is, to the rehearsing of tactical play, keeping position while applying different strategies to open the opponent's defense (Zauli, 2002). From young ages, players are trained to keep position as well as to move in coordinated ways to break a defense apart. Positional play is important as it maximizes a team's strengths while occupying the space in a rational way.

FIFA has gone to great lengths to simulate the importance of tactics in the game. In fact, accomplished players can use hours setting up and testing the tactics of their teams. Tactics in *FIFA* imply a classic understanding of tactics: players can choose a disposition among a large number of variations. Each tactic can then be individually modified, changing the placing of each

¹⁶ These arcane numbers refer to the tactical disposition of players in the pitch, starting from the goalkeeper onward. So 4-4-2 means 4 defenders, 4 midfielders, and 2 attackers.

player as well as their workload and attack/defense balance. I, for instance, play with Barcelona a modified 3-4-3 with a fake striker¹⁷ that falls deep, and two very open wingmen, copying the tactical disposition of some Barcelona matches in the 2011-2012 season. This is not a premade tactic, but one developed over time, adjusting to both my intention of playing like the real Barcelona, and the constraints of the game (playing with a 3-back is extremely dangerous, particularly in online play, as it leaves open counter-attack strategies).

FIFA also allows for a deeper modification of tactics, from the speed of passing to the defense patterns. As praise for *FIFA*, it is possible to say that tactics can balance games in which players of different skills meet, since it is possible to stall an excellent player using defensive tactics, much like in real life. *FIFA* seems to have managed to procedurally simulate the importance of tactics. It is possible to say that in this aspect, the simulation almost totally converges with the original game. However, football, like any other game, is in constant evolution, and perhaps the most interesting evolution witnessed in the beginning of the twenty-first century is the reinterpretation of positional play performed by F.C. Barcelona. According to the line up for the 2011 Champions League final match played in the Wembley Stadium in London, on May 28th, 2011, Barcelona played a classic 4-3-3. However, in the pitch, things looked very different. In the offensive phase, the players were disposed closer to a 3-5-2, with Alves running up to the midfield and Mascherano taking a slight bent to the right. In the top, Messi played with absolute freedom, often falling deep into midfield, facilitating inner spaces for the two offensive wingmen, Villa and Pedro, to take the spaces he created by displacing Manchester United's defenders. In other words, Messi was not fixed in any position in the pitch, which make him difficult to defend. By moving with freedom, he broke the defensive order of Manchester United, allowing his teammates to create scoring chances. Seeing Barcelona play that match gave me a glimpse of what some matches in the otherwise not so brilliant 2011-2012 season has proven: that Barcelona is evolving tactical gameplay and positional play thanks to their youth training (Hunter, 2011). Barcelona's players are seldom

¹⁷ A fake striker, fake 9, or false forward defines the goal-scoring player that takes an untraditional position in the attacking front, not staying static but running from the midfield into the box.

limited to one position, or one function. Or better, Barcelona's players only function is to touch and go, to pass the ball as fast as possible to the best positioned team mate, while running to position themselves to receive the return pass. When played at full speed, like in Wembley, the ball moves at the speed of a hockey puck, and players seem to know beforehand how and where to move. There are no fixed positions, just moving around like hypnotizing the rivals. I have no doubt that a future of the game, at least the future of professional football, will go in that direction.

FIFA can, as of now, not replicate this evolution of the positional game. It would require AI routines that are still computationally too expensive. When playing with Barcelona, it is possible to imitate the fast paced passing style of the actual team, but only if a player learns to read the tells of the AI, the way the computer procedurally simulates the moves of the players. That is, there is no space for the spontaneous, creative expression through technique that makes Barcelona's side exciting to see.

One of the extraordinary characteristics of contemporary Barcelona is how the three midfielders constantly change position in order to create superiority for passing. That requires, again, spontaneous and contextual reading of the rival, the situation, and the estate of the game. *FIFA* has simulated the speed and precision of Barcelona's passing with stunning accuracy, but the AI controlled players still play in predictable patterns, incapable of reading the game and taking true advantage of that speed of passing.

Much like in the case of the rules, playing this kind of modern football in *FIFA* requires for the player to understand how the computer has been programmed to replicate the moves of players, and to interpret those AI routines as a way of developing tactics and ways of playing the game. Unlike the game of football, where learning the ways of the ball, technique and how to play with others is crucial, learning the game of *FIFA* requires procedural thinking (Bogost, 2006), understanding more than football, the way the computer understand football tactics and implements them adjusting to players' behaviors and actions. Playing *FIFA* is playing (with) a computer system.

Stars

What makes a football player a *star*, a defining athlete in the team, for the game? Football is a game that requires excellence in a number of skills, from reflexes and foot-eye coordination, to sense of space and balance. Star players are often those top level players who, besides the natural and trained qualities required to reach the top of their profession, excel at particular skills (Hughson and Inglis, 2000, 2002). A goalkeeper with cat-like reflexes, a striker that can score goals anywhere, or a defender who leads a team, these all qualify for being stars, and examples abound in football¹⁸.

There are, however, special kinds of stars, players that define teams, players so virtuous in their command of the game that excellence is not enough. The athletic and scoring prowess of Cristiano Ronaldo is unparalleled in modern times, much like Pelé's ballet-like play with Brazil, Beckembauer's understanding of defensive play as the first step in attack, or Johann Cruyff's interpretations of (Rinus Michel's idea of) total football, these are all examples of star players that take the game beyond what was possible at their prime time as athletes.

One of the reasons why football simulations are so popular is not only the possibility of playing with the team you root for, allowing you to right the wrongs of real life. What we want with these simulations are also the heroes, the star players. We want to score goals and win, but we want to do it controlling/being Cristiano, Rooney, Totti, Messi. Trying out what we can do with these simulated stars is a step in fandom for which computing simulations are offering new degrees of depth and engagement to these fantasies.

But what is lost in the simulation, and what is adapted? Let's start by stating a different question: What is it that makes Messi a star player? Even though he is a top-level professional player, he does not have a privileged physique, at least compared to the athleticism of Cristiano Ronaldo. To understand Messi it is almost needed to see him play live. His passing and shooting technique are outstanding, as well as his speed without and with the ball. Still other players have a similar, and even better skill set.

What makes Messi a star player is both his understanding of the game, and the ways he inhabits the football field (Hughson and Inglis, 2002). In the 2011 Wembley Champions League

¹⁸ For the philosophical importance of performance in soccer and sports see Eylon and Horowitz (2010), or more generally Gumbrecht (2006) or Schmitz (1988).

final, Messi excelled, helping Barcelona win their 4th Champions League title. While he did score a goal and generate a number of dangerous situations against Manchester United, what was more astonishing was his deep understanding of the game.

The first Barcelona goal may serve as an example: after Xavi receives the ball some 30 meters away from the goal, Messi notices Pedro running the right wing, so he runs in the opposite direction, leaving Pedro alone and ready to receive Xavi's pass. Messi not only read the situation immediately, but also read his teammate's intentions and created a goal without even touching the ball. Essentially, what Messi did was fool the defenders into moving towards him, thus opening the space for a teammate to take that position and shoot free of mark.

Similarly, in the first 10 minutes of the game, when Barcelona was suffering the aggressive Manchester defense, Messi dropped from his striker position and started playing in the midfield, giving Barcelona a temporary superiority in the midfield that allowed his teammates to get their trademark passing game started. In this position of fake striker, or "lying" striker, Messi has become the a football player that will go down in history.

Messi is not only an athlete with outstanding technical qualities, but also a player who can read and experience the game in ways that are creative interpretations of the situations around the game, with or without the ball being in play. Messi, like every star player, understands the totality of the game, as a collective and individual effort.

The simulated Messi is however something different. Thanks to the impressive physics engine underlying *FIFA 12*'s simulation, controlling the Argentinian superstar *feels* like being able to reproduce the moves the player performs in the pitch (Swink, 2009). The low gravity point and the explosive speed are coupled with the compact physique, making the player difficult to tackle. Unlike in previous iterations of the game, playing with a superstar player is not anymore a matter of learning to use the controller to perform the so-called "skill movements", but it's more a combination of the skills and ability to read, once again, the way the simulation processes the characteristics of the actual player.

Controlling Messi in *FIFA 12* feels like controlling a superpowered avatar that can just plow through the pitch without almost anyone being able to stop him. However, when playing the game, it does not feel like you are playing with Messi, or at least with the player that can be seen in a stadium, or on television. When the player gains agency of the avatar, it feels like

controlling a *better* player than others. But when Messi is steered by the CPU, there are many limits to its performance. Individually, it is excellent, but it does not have any influence in the collective game, it does not show any understanding of the game as a collective experience. In this sense, even the adequate simulation of the physical conditions and skills of this player makes it just a *different player*. It is named after Messi, and it bears resemblance, but again, playing *with* Messi means understanding a particular simulation system that refers to a reality, but departs from it in critical ways that make the activity of playing with the simulation a different game.

In the case of individual stars, FIFA focuses on simulating what is possible to simulate, that is, the physical characteristics of the player rather than the way a player interprets the game. In this sense, again, playing *FIFA* implies understanding a procedural system on different domains. The system controls individual players, and the sense of a team is noticed by the way tactics are implemented, rather than by the way an individual player interprets and plays the game. There is no sense of players *playing* the game, but of a complex set of behaviors decided on tactical level in which individual players' simulations are operating as modifiers of the tactical situation.

Football and *FIFA* are obviously different things. *FIFA* refers to the football game, and they are therefore related. But the way computing constraints and expands the possibilities of interpretation and implementation force a new type of experience, a different understanding of the game of football on all its main domains that makes *FIFA* a derivate game from football, a game important and relevant on its own, but one that is different from football. And that is due to the procedural nature of *FIFA*.

Conclusion: Procedural Football

With this chapter I intended to explore the common elements and the divergences between the sport of football and the computer game *FIFA*. The purpose of this research was to trace a genealogy between both games, inquiring on their ontology and the ways in which they create cultures and practices of play.

As it was mentioned previously, it is fairly obvious that both football and *FIFA* are games, and that *FIFA* intends to simulate the former using computational techniques. It is precisely in the computational/procedural nature of *FIFA* where we can find the divergence between both games, and where looking at that divergence might be interesting for game studies. *FIFA* attempts to *realistically* simulate the game of football. Its designers and developers have looked closely at the beautiful game, the ways it is played, the importance of rules, tactics and skills, and they have done a phenomenal process of simulating them. For the casual player, *FIFA* feels like a realistic take on football. However, a closer look shows interesting divergences that not only deviate one game from the other, but also what playing the game implies, and incidentally what kinds of cultures will derive and can be fostered by *FIFA*.

The main divergences between football and *FIFA* have to do with what computers can do, given the requirements of the audience of the game¹⁹. In their interpretation of the rules, *FIFA* developers have done away with referee interpretation and the ambiguity of the rules, making the experience of playing more of an understanding of how that translation was made. Tactically speaking, *FIFA* is close to the sport, even though it does not allow for the fluid, flexible touch and go football that some modern teams advocate for. And finally, in its simulation of star players, *FIFA* focuses on individual characteristics rather than on the ways star players interpret the game.

All of these divergences are based on what computer systems excel at. It is possible therefore to claim that the simulative divergence between *FIFA* and football is, at heart, a procedural one (REFERENCE). Football is a game created and evolved around physicality and interpretation of the rules while playing. *FIFA* is a game created and evolved around the limits of modern computation, around the necessity of translating an interpreted, physical game into a game processed by a computer. The lack of ambiguity makes it a more rigid game, a more consequent interpretation of an ideal game of football.

¹⁹ Incidentally, the field of robotic football has addressed many of these formalizing questions before. See Dylla, Ferrein, Lakemeyer, Murray, Obst, Röfer, Schiffer, Stolzenburg, Visser and Wagner (2008) and Stone, Quinlan and Hester (2010).-0p

This has an interesting implication for the play experience. The game of football is played by learning to read other people, the referee, and by developing technique to control a ball in different pitches, weather conditions, and even with different ball models. *FIFA* players, on the other hand, need to learn how to think procedurally, how to decode the technical implementation of a known set of rules, tactics, and player characteristics, and apply this way of thinking into ways of playing the game.

FIFA is football played procedurally, and that is why it is possible to say that, while it is a game related to football, there are enough divergences from it to claim that these are actually two different games. Interestingly, the procedural nature of *FIFA* play will also have strong implications in the culture and “sportification” of *FIFA*. Excellent players of *FIFA* will be those that can better express themselves creatively through the understanding and manipulation of the procedures of the game. Technique, tactics and even style will be manifestations of particular understandings of how a computer interprets a set of rules and tactics. What the *FIFA* player does is play with processes, and that will be at the core of the future of *FIFA* as both a spectator game, and an e-sport.

Given that the divergence between *FIFA* and football is due to the procedural nature of play in the computer game, it might be possible to question whether that argument can be extended to other sports computer games, like those that simulate the more formalized American football sport, or even to other computer games. Proceduralist studies have focused on narrative and serious games; it might be worthwhile to think about the ways procedural play takes place in sports games.

As a thinker, I am particularly interested in the expression of play given procedural constraints; that is, in the process of appropriating a computer system for expression through play. Even with *FIFA*, it is impossible to *be* Messi, but it is possible to impersonate him through a computer system, and achieve the beauty through play that Messi can achieve in another game,. The performative possibilities of procedural play shine when resting at the feet of simulated football stars.

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