

Visual perception in metaverses.
Consuming advertising through the avatar's eyes

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Abstract

To assume a personality, to control its actions and to fulfill tasks are characteristics intrinsically related to the virtual worlds, as example: metaverses and videogames. In this perspective, it is possible to consider the expression of Kerckhove (1995) which suggests that in a certain way we carry through a psyche's plastic surgery, or, simply we venture ourselves for digital environments searching for entertainment or the fulfilling for what we cannot make (or to be) in real life. Considering this, the aesthetic and functional technological advance of imaginary environments – for times a faithful representation of the material space, this article presents a discussion on the visual perception that we have of the advertising (billboards) in virtual worlds through our avatar. The debate is supported through literacy references on the videogames and virtual reality, but also reveals a qualitative analysis established in the data collected during an exploratory observation to the universe of bits: Second Life (metaverse) and Pro Evolution Soccer (videogame). It's intent to launch a critical look to advertising inserted in ludic and simulator spaces of the real, as well as understanding the form that our “detachable eye” consumes such advertising messages. It means this paper isn't a proposal of a miraculous system of measuring the in-game advertising efficiency, but yes it is a complex reflection to understand how the player interacts with the advertising (at least if he recognizes it during the missions and digital quests), its field of vision, time of exposition to the Media...

Finally, it is stand out the interest for understanding the visual perception of an avatar is related to the main objective of the author, who carries through a PhD research focused on the digital simulation of the experience of visualizing billboard advertising in urban and architectonical structures. Creating such tool is justified by the possibility to become more performative and connected the action of researchers and professionals of the advertising area.

Keywords: in-game advertising, visual perception, avatar, metaverse paradigms, videogames, space representation.

Visual perception through the digital screen

When faced with the cyberculture experienced by the information society in these early decades of century XXI, where it is common to use digital technologies and applications to perform, in a virtual way, tasks of the physical world, as a trip to the bank or a business meeting, everyone realizes how much we interact with digital screens.

Although Coelho (2010) has emphasized that deal with a huge range of media is no longer a new thing to the contemporary world (newspapers, movies, SMS's, emails, iPods, computer games, etc.), the convergence of media enhances the creation of a specific semiotic in these environments, thereby becoming a language (Manovich, 2001). "It's not just the convergence of media forms, but in a more fundamental level this process involves the convergence of semiotic systems" (Coelho, 2010, p.17).

In this process, the digital screen appears as the main element of support, mediation, filtering and modeling between virtual and real worlds, able to affect how people produce, perceive and see the content, and therefore how they understand subjectivity and experience with the digital age world. "The digital screen has become the main way to access to any information ... read newspapers, watch movies, communicate with colleagues, relatives and friends and, above all, to work," (Manovich, 1995, p.94 *cit. in* Coelho, 2010, p.20). Now, regardless of the users being natives or immigrants of cyber culture (Dyson, 1995), it is remarkable the phenomenon of familiarization they deal with the logic of digital narratives. People assimilate the non-linear narrative style of interactive spaces and understand the deep layer's navigation in the search for content, breaking the paradoxical routine of linear reading to give space for a hypertext exploration, guided by visual logic and controlled by the wishes of the user in following the path he really wants. Empirically, this is proven every day with the increasing familiarity of users with the Internet and other multimedia applications.

Anyway, even if the intermedia characteristic is a greater value to digital content language, inevitably, digital screens are framers. They are spaces of mediation that separate the real space of the virtual space, where there's an obstacle to the way for the total immersion. Thus, visual perception turns out to be the perceptive sense that acts in great proportion in the user experience with the virtual environment. It is because of the view that the contents represented visually are interpreted on the screen. For example, in the case of videogames, the user sees the electronic world through a character/avatar. All that the character is able to see (and feel) will be seen by the user, including senses not mediated by the computer screen, but were captured through the human retina, processed by the brain and aggregated in the subjective and emotional resolution that the user has with the virtual world through the prosthetic body of avatar (feelings). Once again the videogame universe is remembered as example "of this struggle between proximity and distance ... this tension between identity and reality of being in front of the screen ... that prevents players from falling into the dream world of fantasy for a long time," (Coelho, 2010 , p.24).

In order to rectify the semiotic tension between being inside or outside the digital screen, some theorists argue the ability of transparency mechanisms to sharpen perceptions of the human body, even in a non-immersive virtual reality mediated by the computer (Zagalo, 2010; Bordwell, 2001; Cameron, 1995, Bolter & Gromala, 2003). "The cinema, television or interactive media depend on the visual representation to exist, however the relationship with their active or passive receivers is a total immersion", (Zagalo, 2010, p.35). Transparency in this context would be the ability to cancel the sense of mediation between the real and virtual worlds with the support of mechanisms that lead to the organic/physic world the illusion of the senses generated in the inorganic/virtual world.

However, if language in the digital universe extends, converges, and also creates narratives for specific electronic applications, it is pertinent to consider that some languages

are more efficient than others to wake the user (outside the screen) greater degree of involvement with the electronic landscape (inside the screen). It corroborates the idea that information society has a perceptual experience on the screen based on the concept of activity, rather than an experience based on the concept of instrument (Antiquity) or operation (Classicism) (Neves, 2010). According to the author, the concept of activity values human contact with their own environment, as the navigation routine in virtual worlds makes people to understand the own body as a feeling, not essentially different from the electronic landscape. There's not a clear and complete dichotomy between the human being (center of subjectivity) and the virtual representation (inhumane).

"The real body felt by the internet user is also a feeling that is not centered on the idea of the unity of the self. It's another thing: they are feelings which the sentient of one or another side (inside or outside the screen) are not different... is not just the visual perception but the inorganic feeling that shapes the way we see and perceive... perception is an action which constitutes the most important relation of human beings with their environment... it's the way people interact with space... perception is above all an exploration method", (Neves, 2010, p.97-101).

From this quote, it's possible to say that life activities (even urbanities) are represented in virtual worlds, but the body who commands those visual tasks, from the real world, does not significantly enters in this virtual reality. Inside the digital screen are presented simulations of the world and its several routines. Outside, is the user's organic body, that sometimes enters in the screen universe through visual (emotionally) resources and moves a character (a self-representation) around the figurative scenery using control devices with keyboard, mouse or joystick (Levy, 1999).

Please note that most of the human body senses are not mediated by digital screens - especially smell and taste. They remain outside the screen, attached to the organic body.

Inside the screen, user's detachable body represented by the avatar (a hybrid cyborg that explores the virtual world guided by the real user) transmits through its vision field a visual idea about the experienced sensations, as a kind of feelings visualization (Kerckhove, 1995).

In virtual worlds¹ mediated by a non-immersive virtual reality emotions can be stimulated by visual and audio components. They influence the mediation transparency. The Gestalt Theory is an example of using graphic mechanisms as color, shape and perspectives patterns to influences the visual perception. They are visual resources who work sending to the brain the imagery ideas about any perceptive feeling activated in the inorganic human body during the explorations through the virtual cities. The individual interprets the character/avatar subjectivity – things he probably saw during the plot adventure in a videogame or navigating in a three-dimensional application – to associates to similar experiences or preview knowledge from the material world. For example, with the organic body has had the experience of seeing a car explosion, or at least understands the concept and the senses awakened in this kind of situation, it will be able to connect the dots and builds a perceptual experience through the screen, but actually this experience was stimulated only by the visual perception (he saw the fire, the fire warms, the fire burn, the fire burns my body with in contact with the character/avatar).

Advertising on the metaverse (urban) landscape

Connecting the concepts earlier presented (on the user perception in virtual worlds) with some advertising practices from spaces that emulates the reality, precisely in the metaverses, essentially two models stand out: those originated from the conceptual essence of the real world advertising (billboard, print ad, poster, etc.) but have different clothing (online banner, pop ups, etc.) and those graphic sceneries with advanced design, aesthetically similar

structures and architectures of the urban landscape, actually in a simulator platform from the original version (Thomas & Penz, 2003, Zilles Borba, 2011; Picon, 2004).

In virtual worlds the most appropriate advertising model matches to the second example, which transposition involves space and (body) movement through the space. It is doubtful suggest that in hyper-reality the advertising image is consumed by the avatar's eyes, because it is an advanced aesthetic and narrative model, based on modeling, texturing and animating techniques of 3D tools. Ramonet (1999, *cit. in* Piccinin, 2009) considers that three-dimensional design is able to re-create a synthesis of image so similar to the real one that sometimes it's seen as more real than the real one. Ashbee (2003), emphasizes the imaginary ability as one of the essential qualities of digital animations, distinguishing it from the implicit realism, after all, digital images are mathematic images originated from binary codes.

A lot of advertising implementation in virtual worlds is based on the universe of videogames (Carless, 2006). The advertising applied to the electronic architecture (in-game advertising²) would be similar to out of home media applied to the city architecture and structures of urban space because it's just like a real space simulator model. In a Formula 1 racing videogame simulation, for example, the boards of sponsors displayed around the track would have the same importance for the game plot composition as the user interaction with the object (the pilot with the car). Of course, drive the car is a key to the success of the game, but the noticed details make all difference when talking about the construction of user's involvement with the virtual reality. In short, the audible and visual elements could work as mechanisms of transparency (sound of car engine, stands with an audience, advertising on billboards around the track, pits and equipment with detailed mechanical, etc.). The same applies to simulators of the football practice or any other sport where the virtual stadiums have advertising posters that reinforce the spatial configuration of the scenery and, of course, give brands a specific window to communicate with a specific audience.

Methodology

This article is a reflection on advertising in virtual worlds and metaverses, in particular the way user perceives and consumes such images in front of a digital screen. Thus, it focuses on finding answers to questions related to the perceptual experience of the people when consuming the advertising in virtual worlds (narrative, transparency, etc.).

On this way, besides introducing concepts on the subject, was felt a necessity to see (and feel) this semiotic experience with the advertising elements in virtual environments. Exploratory observations in two virtual worlds characterized by the simulation of urban spaces of the real world had been carried through: the metaverse Second Life³ (SL) and the Portuguese version of the football videogame Pro Evolution Soccer 2011⁴ (PES 2011). In both cases, the observations were done by the author, serving as a methodological tool for collecting data related to research questions (in addition of being a form of approximation to the advertising virtual space). From the contact with virtual worlds were generated two reports that were the basis for the discussion about the space, the body, the vision and the advertising.

Exploratory observations

With the intention to reflect about the user experience with the advertising in virtual worlds, two digital platforms representing the real world were observed: the SL and the PES 2011. In both observations were collected data that supports the reflection about the thematic, they're components and elements related to the visual (and body) perception when consuming such virtual representations of advertising messages. Also, this article has concerned recommendations discussed on the earlier sections (Levy, 1999; Kerckhove, 1995; Coelho, 2010; Neves, 2010; Zagalo, 2010; Thomas & Penz, 2003).

Pro Evolution Soccer 2011 (PES 2011)

PES 2011 is a football videogame for computer and consoles that simulates the sport practice through advanced modeling, texturing and animating resources of three-dimensional and programming technologies. The squad matches are presented on the digital screen by realistic visual expressions and interactive representations. It is a physic-virtual transposition that includes football arenas, team equipments, players and details of an authentic celebration to the football modality. Not enough about the landscapes graphic realism, game involvement is also stimulated by sound perceptions, as example, the singing supporters and the sound effect of kicking the ball or a violent contact with opponents.

In PES 2011 the game involvement starts even without the ball rolling in football pitch. It means, before visualizing the three-dimensional scenery where actions develops during the match simulation, a series of interactions related with the plot personalization is suggested to the user controls, since choosing the preferred team till selecting an adjusted scheme to challenge the opponent (Figure 1). All this personalization settings are configured through a visual interface dominated by graphic and typographic elements, and some infographics, with schemes, tables, numbers, arrows and technical data about all athletes. Although do not exist any advertising message at this moment of the game, and so, before playing virtual football, the visual codes used to explain complex information make it easy to understand patterns or to compare players skills, beyond stimulating the user/player involvement with the plot of the game.

Still, before playing virtual football, the application shows an animation in full motion video (FMV) which has 3D images like cinematographic movies animations, but this time the stars are the football players. Even the narrative in the third person is similar to the cinematographic field. It is like the user always has the best place to observe all players movements (Figure 2). In the FMV animation was identified the first advertising message of

the game (Figure 3). During around twenty seconds it shows the players passing in a narrow corridor and in this space appears some advertising posters affixed at the wall. They promote sports brands, football institutions and even top competitions organized by Fifa⁵ or Uefa⁶. This first contact was kind of discrete because they were in a second layer of elements disposition, behind the players. Anyway, their format means to be efficient because the clean and simple aesthetic resumed to the brands linguistic expression. Also, when the FMV makes a camera movement of approximation to the athletes, turns interesting the opportunity to realize details from their physics and, also, details from their equipments, including sponsor's image and the clothes manufacturer company.

The best use of advertising messages in PES 2011 is really perceived at the moment the plot come to the pitch field. User can see a series of posters, signs and objects spreading brands concepts around the visual chaos of the football arena (Figure 4). This ludic communication intends to convince people outside the screen to get a more emotional involvement with the virtual reality. For example, as well as the eyes, the ears catch the sound of the fans, the booms of the fireworks and any kind of noise that simulates the atmosphere in the entertainment scene. In fact, visual and sound creates a perspective experience on the screen disclosing perspectives, depths, dimensions, scales, textures and other information that, theoretically stimulates the body outside the digital screen to immerse to the virtual world, some place between physic and digital, between organic and inorganic. At last, in digital screen the avatar's eyes are established with the user's eyes.

Also, during the lots of exploratory observation to this virtual environment, it stayed clear that the abundant advertising format emulates the adboards⁷ styles (Figure 5). They occupy significant area of the electronic landscape, presented in the main vision of the plot and lodged around the football pitch and stadium superior structures. Many times, its communication messages were purely institutional, limiting itself to spread the brand image,

either logo, a color, a figure or just words. In less expression also could be seeing smaller posters next to the fans communicating their devotion to the squad (support sentences or symbolic images related to the club).

When finally the match begins, and the ball starts rolling at the pitch, the game main camera takes a distance of the player's simulations opening vision area. This camera movement makes the graphics lose some graphic qualities, but in circumstance the space is easily assimilated, as well as the advertising in the game landscape. Although the when playing the game the user has a full concentration in the ball action there's lots of moments where the advertising enters in the scenery vision field. It appears again in a second layer of elements identification because it's not intent to be more visible than the players and the match duel, but they are imperative to create the game atmosphere (advertising, flags, fans, photographers, team area, coach, referees, stadium electronic board, etc.). In this direction, the already famous brands were easily memorized, probably because they already have signs and symbols engaged in people minds (names, colors, figures, forms, etc.) Anyway, it is important to confirm that at anytime the advertising were a species of noise or disturb for the avatar tasks. By the other hand, they enforce the game landscape realism and the landscape realism enforces people immersion in the virtual world.

Curiously, when exploring PES 2011 some advertising shows movements that alternates its linguistic and plastic message. They were like circulatory adboards: advertising boards with two images in one space, where only one was show at time. They stayed twenty seconds exposed before changing images and could be presented in two combinations: same brand different images or different brands (and images, of course). Again, an obvious influence of the real world inspires to create advertising format in virtual worlds, therefore the regular adboards were also presented with the same characteristics from the original versions:

short text, legible typography, impact image, company logo, strong contrast between main image and background color, etc.

The regular configuration of PES 2011 suggest playing the game in third person narrative is the best way for interacting with the scenery, anyway there are options to change the vision perspectives. It includes a series of distances and angles from different points of view in third and first person narrative. In case of replaying the best moments, the FMV were again called up to show details and realism. The replay virtual camera cannot be modified by the user, but adopts new perspective (from above, from behind, from side, etc), including first person narrative, in which the avatar's eyes guides the user to interpret details of a nice shot, a polemic off-side or a goal. In replays, the landscape image is underlined remembering replay techniques from television emissions. FMV animation generates proximity with advertising because it represents the past actions in slow motion, making it easy to recognize elements around the football pitch. The goal is the replay where the advertising is best exposed because it allows user to configure any point of view to review the action. So, here is an example of synthesis image where information can be considered better than the real situation could anytime be. It means revealing visual information not identified during the original act).

It's important to underline that brands who communicates with in-game advertising in PES 2011 are the big ones from the real world. The most brands were from sports and equipment sector, football clubs and automobiles: Nike, AC Milan, Manchester United, Ford, Toyota and Audi. Others brands were from the segments: credit cards, banks, airline companies and telecommunications.

Second Life (SL)

SL is a three-dimensional virtual world free of objective and missions. Is an online community which doesn't exist levels and requirements, where the user is allowed to create or

simply explore the space (socialize, design, party, study, etc.). To live in a virtual world, the habitant needs a form that represents its identity, which is visual traduced as an avatar. “Is all about the virtual corporal representation, and it can be constructed like a mirror of the real user image, that is, a human being, or can even though have the similarity of an animal or na extraterrestrial”, (Angeluci & Santos, 2007, pp.58.59).

In this direction the SL creates parallel lives, fantasies the impossible plans people have, or even the desire to assume another identity, in a kind of psyche’s plastic surgery that resumes to the search for the accomplishment of dreams that cannot materialize in the real world (Kerckhove, 1995). Also, the capacity of moving and controlling the avatar are fundamental in a virtual environment like SL, after all, the user just dislocates in the cyber-urbanities through the avatar.

To approach the empirical exploration to the three-dimensional scenery that’s SL, it makes necessary to create an avatar and personalize its physic aspects like the body, the clothes and particular moves. However, was used an already done avatar from the author. The narrative in SL is directed to the first person experience, as well in first-person-shoot games (Call of Duty, Medal of Honor, etc.) in which user sees the world through the same perspective of the avatar (Figure 6). Anyway, as almost all of the virtual worlds, it is possible to personalize the virtual camera, even to a third person narrative. But, the first option seems to be the one where the outside and inside screen feelings are better mediated. It transparency and involvement has more potential with this point of view.

The first territory explored was the island of the Honk Kong Polytechnic University. When transporting the avatar to the institution virtual space was possible to identify lots of building and structures that simulate library, auditorium and others areas probably similar to the original ones in Hong Kong (aesthetics, scales, etc.). The avatar explored inside and outside areas, but wasn’t possible to found any advertising. Anyway, it was identified similar

structures to street posters and billboards spread around the digital landscape (Figure 7). They served to support the navigation and the exploration to objects, zones and activities related to that island. The most interesting about those images was the user could move closer the avatar and interacts with the multimedia contents on the board. It means a similar structure of the real world billboard, but a non-linear narrative armed of interactivity and multimedia information about products, services, events, etc.

The exploratory observation also takes the avatar to simulations of real cities, especially the ones where communication elements can be identified as part of the urban space. It was opted to explore representations of Paris and New York.

At the French capital the observation was limited to the Eiffel Tower zone, where a significant number of advertising could be identified. Inside an elevator to reach the top of the tower there were three advertising images: an art gallery, a music gig and a parachute jump service. All promotions related to SL activities.

Same experience was felt in the New York space simulation. The major difference was the ambience. New York had much more urban and architectural structures where the advertising was adapted. Also, in a corner street an advertising-man represented by an avatar dressed up with two advertising posters attracts people attention (Figure 8). This maneuver brought some questions about the ambulant advertising practice, therefore, since that each island in SL possesses its exclusive construction and action perimeters, theoretically this avatar could take any brand message to others spaces. Identifying this communication was like proving that user can give any use to the platform, as if the imagination was always stimulated to think outside the box.

It is a reality that posters and billboards are the elect advertising format in SL. And it might be justified in two ways: the first is connected to the environment usability and avatar interactivity with space, people and objects; and the second, although says respect to the

content of the poster, it passes a little to the side of the advertising topics to center itself in the educative problems, because nor all posters and billboards in SL promote products, services or events. Mainly the ones that are place together monuments, building entrances, museums and stores function as an informative module that teach how to handle a car, to use the elevator or, simply, to inform what exists inside the structure the avatar desires to penetrate.

In generally, participation in SL is an extremely entertainment. By times, biological sensations not able to be mediated by the computer are psychologically understood and they kind of materialize feelings with the support of visual and sonorous combinations.

Finally, during the exploratory observation stayed clear that most advertising in SL are from events, services and products from the metaverse. Rare was the case of consolidated brand advertising in the researched sceneries. Perhaps, because a greater brand possesses its proper SL's territory where promoting products and services could be more personalized and related to the brand's philosophy and atmosphere.

Reflections about consuming advertising messages in metaverses

There are no doubts that three-dimensional interactive worlds have the potential to emulate human being practices. Since urban structures till the interpersonal relations, in these environments the visual representation not only looks for the graphic realistic approach, but also for the functions carried through by the user with an avatar, a kind of alter ego or similar copy of the person who's controlling it.

The advertising in metaverses, simulators or videogames is important because its elements participate on the city's landscape configuration and, being a simulation of the real space, the communication elements of a public space could not be forgotten. However, the exploration guided by the avatar's eyes indicates some divergence in the form user perceive advertising in electronic landscape. In first place, one notice that the plot of both observed

examples are different (PES 2011 and SL), especially because interactions do not develop in the same environments. And, even that both have characteristics of virtual worlds, only SL can be considered a cyberspace world, because the geographical area for social networking, while PES 2011 has a limited action zone to the world of the football pitch and the stadium elements. The second divergence is also related to the landscape and the advertising. The way immaterial representation is mediated to a material feeling. On this way, PES 2011 presents a third person narrative, which user sees the scenery and its avatar. This interactivity format turns colder and less emotive the relation with its avatar (and with the space), but the vision field turns amplest to realize all elements existing in the space around the game action. That is, it is obtained to perceive better advertisings around the main field at the stadium structures.

In SL, the immersive potential is better explored with the first person narrative which creates in the user's mind a good participation feeling. The first person camera view is a kind of transparency mechanism with high potential to cast the organic and the inorganic body. It means, walking through streets in virtual world and perceiving promotion images turns into a regular practice.

Even so, PES 2011 and SL have opted to transform some models of out of home media in virtual ways, but each one of them adopted a different format. Exactly, the conceptual essence of the advertising pieces is the same one, but the styles are differed. In PES 2011, for example, the user's contact with advertising messages occurs about 90% of the times through virtual adboards visualization. They have a short and direct message, similar to what happens to advertising boards in the real world. Also, in PES these messages have an institutional communication and almost all the brands promote their own websites or just the company's name. Other advertising model in the game are more like merchandising, where players equipments were transpositions of real market products (boots, t-shirts, etc.). In turn, the frequent advertising formats in SL are the street posters. They promote events, products

and services carried through inside proper SL. Its great advantage if comparing to the PES 2011 adboards is the user explores the communication pieces with adequate vision field for an indeterminate time. Also the aesthetic and literal composition of SL's street posters follows the same knew prescriptions models of real world, but in SL they are interactive and multimedia.

At the end, it was possible to identify a huge difference between brands advertising in PES 2011 and SL. At the first example, brands are consolidated in their business sector and act strongly in the real world. In virtual space, they extend communication to attract a specific consumer. In fact, most of brand's images are know by the mass audience, what makes simple to recognize cognitive codes in the virtual world, as example: colors, letters or figures (Sony, Nike, Audi, Toyota, etc.). In opposite, identified brands during the SL exploratory observations looks for a commercial dialog, promoting activities and objects from the inside screen world. In consequence, they're almost all brands playing exclusively in SL.

Conclusions

At first, is possible to conclude that virtual worlds have an enormous potential to stimulate user's visual perception. It could be through third or first person narrative, since it uses transparency mechanism to cancel or reduce the tension of mediating the outside and the inside screen experience. In fact, the SL was the environment where the illusion of immersing in a non-immersive virtual reality (conducted by a computer interaction) works better, perhaps because its narrative and content visualization explores the first person experience of walking freely around the virtual space. It means, in this kind of metaverse, everything the user sees (and feels) is interpreted through the avatar body experience. This way, the user detachable eye is capable to register perceptions lived by the avatar (in an inorganic field) and transfer this idea, memory or thought to the real body (outside the screen). In short, the user

doesn't feel biologically what happens inside de virtual world but can imagine that feeling because perceives it visually and has capacity to interpret its impacts in the avatar's body.

Also, was concluded that advertising in virtual worlds are aesthetic and functionally similar to their original versions. It is an obvious conclusion if considering the essence of the simulation: make it similar to real. Even being a three-dimensional space with synthetic representations, the visual perception experience works similarly to the real experience (perspectives, depths, textures, colors, illumination, forms and other characteristics from vision field are imperative to visualize a poster or a billboard in the truly cities). It brings another conclusion, that in metaverses and virtual worlds the advertising is represented at most of the times as an element integrating the urban landscape. It means formats like the posters, adboards and billboards make use of the game scenery to be in a good attention place in visual meanings. This happens a lot in PES 2011 with the adboards in the middle zone of the football pitch.

Finally, it was concluded advertising in PES 2011 and SL really doesn't explores all the transparency mechanisms potentials from the digital communication. It limits itself to be a transposition of the original version, what brings a very nice graphic realism to the plot, but ignores the hypermedia potential of digital narratives in virtual spaces.

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Annexes



Figure 1 – Squad personalization

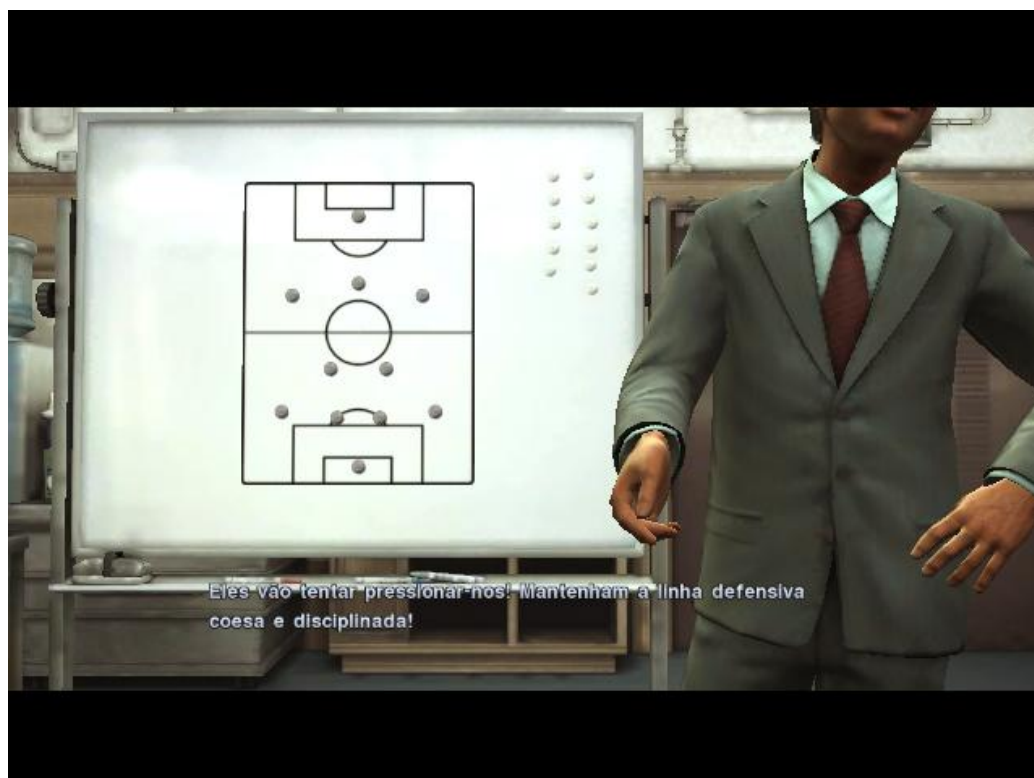


Figure 2 – FMV animation

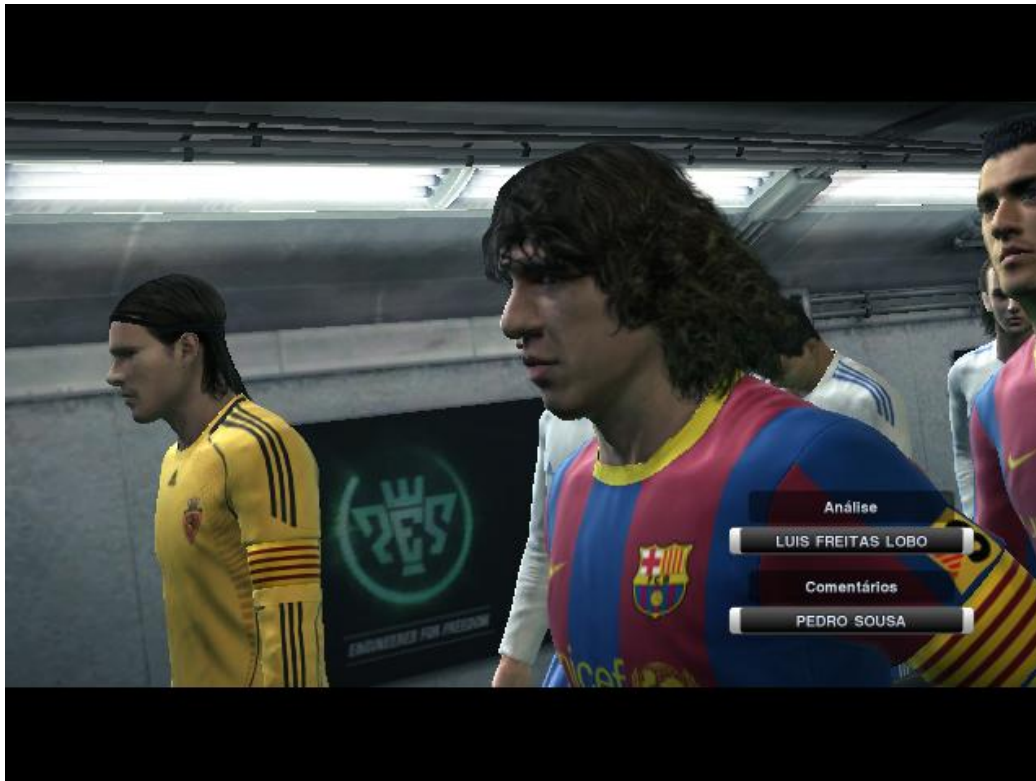


Figure 3 – Advertising poster in the FMV animation



Figure 4 – Football pitch in the FMV animation (adboards at the background)



Figure 5 – Adboards around the main field of interactions



Figure 6 – Visualizing the world in SL through the avatar



Figure 7 – Hong Kong Polytechnic University represented in SL (interactive posters)



Figure 8 – Ambulant advertising-man in NYC represented in SL

References note:

¹ Klastруп (2003) says the virtual worlds are on-line representations in sincronic interaction between users and the space, ruled by own world concepts, as navigable universe.

² According to online encyclopedia Wikipedia, in-game advertising is the same as advertising in video games and computers. It can be integrated in the digital environment through an exhibition in the background, such as billboards inside the soccer stadiums or an advertising spot on video during the game break.

³ <http://www.secondlife.com>

⁴ <http://www.konami.com/games/pes2011>

⁵ Fédération Internationale de Football Association (<http://www.fifa.com>)

⁶ Union of European Football Associations (<http://www.uefa.com>)

⁷ Advertising boards