

PACKING CULTURE.

The technological and communicational competence of the video game industry.

Introduction

Video games constitute a very common social and cultural phenomenon today due to reasons that range from communicational to economical. A well consolidated industry is already exploiting this major business that provides millions of youngsters in the whole world with a symbolic universe that is nearly always fun and quite frequently even fascinating– for its users. The magnitude and importance of this phenomenon is the cause, amongst others, for video games to become the subject of a significant controversy. Despite an increased number of scientific and professional publications dealing with video games in a serious manner, the public opinion is still dominated by a concern on the effects this cultural practice might have on its audience. To summarise, this concern is associated with two of the most important ideas within the current cultural debate: on the one hand, the hegemony (Southern, 2001), that is, the influence exerted by some ideological currents that are dominant within the circles that hold the production of these cultural items; and on the other hand, the influence of their contents on the user's individual behaviour – ideologically associated, amongst other issues, with the culture of violence that is so popular these days and, by extension, with the moral panic characterising our changing society. In summary, and regardless of how justified this concern might be and the extremes that in some cases the positions of those who express it might reach, the dominating public opinion about video games reflects a series of representations of this cultural practice and its components (games, electronic screen display, main users, i.e. children and young adults). These representations are at the same time integrated in discourses that –from a certain point of view– aim at guiding this cultural practice, that is, exert power on it or analyse the circumstances around those who experience it –how this filtrates into the production process, how this is reflected in the text and how it integrates in people's everyday life.

In a society like ours, led by the logic of information, "the power mainly comes from the production and distribution of cultural codes and information contents" (Castells, 2003: 211). This explains a common interest to many experts in studying the exertion of power within the framework of popular culture. Although the vast majority of them might analyse it focusing on the text or the negotiation of

the sense, only a few study the production processes of cultural items generally originated at the heart of highly specialised industries, despite the fact that it is the industrial production of popular culture in relation to the symbolic power (Lull, 2000: 160-2). And despite the fact that within this very process, at the same time, there is another type of power which is associated with economical factors in this case (Thompson, 1998: 31) and is rooted in the commercialisation of culture: the culture based on the technical knowledge associated with the identification of human desires and aspirations and how to satisfy them –direct them– relate them to a product and obtain, in return, an economical benefit. The commercialisation of human desire or those products – which are cultural in this case– the individual can use in order to satisfy it, relies on a number of skills, a know how, as well as on the institutionalisation of the cultural practice it leads to.

This article deals with some of the above points. With the aim of accomplishing a more detailed research in video games, I have carefully studied the different aspects of the production logic of video games, including an analysis of this industry, the production and commercialisation process of the cultural items, the criteria guiding these and other given concurrent circumstances, as well as the institutionalisation of this cultural practice and, at its heart, the concept of author amongst other aspects. Broadly, the theoretical grounds rely on many ideas and contributions, although those originating in the cultural studies themselves and those of the mediation theory can here be highlighted. In order to present these grounds as operational I have found a particularly useful model proposed by Jesús Martín Barbero¹ called mediation model. As for the research method used, it consisted of two main procedures: on the one side, I carried out a fieldwork research on the Californian production industry, particularly in the Silicon Valley². To this purpose I visited and observed four companies attentively –peculiar factories of cultural items – that contributed in different ways to the value chain of video games³ and carried out a total of twelve interviews with experts performing different roles in the video games production and commercialisation process. On the other

¹ In spite of having already settled the basis and elements for his model in different papers, the only graphical expression I know of his is the one he presented at the Research Seminar “Culture communication mediations and communication cultural matrixes”. Universidad de Málaga, 2000 (mimeographed).

² I would like to expressly thank for the support on carrying out this research provided by the Spanish “Secretaría de Estado de Universidades e Investigación”, which financed my research costs in California between March and September 2002, and the Department of Communication Studies (College of Social Sciences) of the San Jose State University. Additionally to acknowledging and thanking for the help received from both institutions, I must make a special mention to the Cultural Studies Research Group at SJSU and their Director, James Lull, for his support, and his rich and stimulating comments on my work.

³ Three in development, one in publishing and another one in sound effects production.

hand, for a period of two years I have consulted in detail several professional publications of this industry sector, which have the purpose, amongst others, of trying to share –discuss and transfer– the accumulated and progressively perfected know how of the video game industry workers for years. As regards literary sources, a number of published academic papers have also been useful – particularly those written by young researchers who have experienced the use of the video game– within a framework of the rich and necessary communication with the production industry.

Amongst the many results obtained from this work⁴ there are some particularly worth mentioning: on the one hand, those that highlight the economical determinants of this production activity –sector structure, value chain, market characteristics–⁵ and on the other hand, those related to the specific technicality achieved by the contents’ production industry –to which I confer special attention. I understand technicality as “that element in society that is not merely an instrument, but also settlement of knowledge and constituting dimension of its practices” (Martín Barbero, 1998: 159). In the course of its brief life, the video game industry has learned to identify the reasons why users employ this technology and how they relate to it, as well as to attract these audiences to get them to use them, raising their expectations of pleasure and providing satisfaction by degrees. This technicality, which is nowadays well instituted and in a continuous self-perfection process, entails the acquisition of enough professional competence both technical –ability to construct discourses using specific technical instruments and narrative elements–, as communicative –ability to attract audiences and build them up. But this technicality is the result of the contribution of a range of experts whose diverse views come together –fusing– to achieve a common goal: the creation of cultural items with success in the market. In spite of the importance of the different views inherent to these professional activities, the dominant view in product design and creation is still computer science.

Further in this article, therefore, I will show some results of the research, particularly, those related to the technicality acquired by the content production industry, which represent the specific responses of this industry to the acknowledgement of some gratification desires and the specific ways of satisfying them.

Video + game

As it is evident the use of a video game depends on the voluntary decision of the player –which in turn depends on his personal wish

⁴ Which, due to the sources used for research, relate particularly to North America.

⁵ Of which I provide a wide analysis in another paper being imminently published.

to enjoy the pleasure provided. These aspects are well known to the video game industry, which attempts to create products that above all can provide pleasure and enjoyment to players, allowing them to enjoy a varied range of experiences during their relationship with the game. This is precisely why one of the main principles ruling the creation and development of games is the user centered design – which is also traditional in other fields of software engineering.

Apart from being characterised by a number of criteria, this type of design obviously requires the knowledge of the different types of users, experiences they might draw from it and the type of gratification they are looking for. As paradoxical as it might seem, this industry fails to carry out a detailed and solid research of its audiences (Ip, 2002), dealing only with some knowledge of their sex, age, number of players and their classification into hard core, casual gamers and non-gamers at most. This is why the video game creators themselves should also think out their model-users, i.e., a range of potential players who might use these products in specific contexts, who undoubtedly need to have an adequate degree of discourse competence—which imply the acceptance of the “game rules”, including the role performance of the player within the communication relationship that has already been instituted, as well as assuming their having an imagery by which they might associate the video game with a skill to use this technology for the establishment of their own symbolic environments.

On the other hand, the experiences users might obtain during their relationship with the game –game experiences–, their adequate development and the type of satisfactions involved, constitute some of the most interesting components for the video game industry. This leads to an increasing amount of research aiming at a determination of what these are and what they are based on, although the results are still far from conclusive. This is partly attributable to the variety of concurrent perspectives and the amount of objects of study attempted, but also the great number of different people –living under different circumstances – that use video games.

In order to achieve a greater acquaintance with the type of experience players undergo it is necessary to look at the peculiar relationship between them and their video games. Apart from the wide and diverse range of representations they might come in – contents, platforms, uses– these games are above all supported by a special technological piece of hardware, the most outstanding interface of which is the screen display. Thus they can be fully included within the framework of what is deemed as super-nature (Ortega y Gasset, 1968: 26) or megatechnique (Mumford, 1978:

161), that is, the series of products of different types that human beings have created throughout history in order to evade from the difficult circumstances imposed by the natural sense of place and time, yielding this way a new and more favourable, although artificial, circumstance. In order to escape from a simple being and reach a wellbeing, humans have created different items throughout history, amongst which the video game is one of the current ones. These, consequently, constitute one more item of this context – increasingly consisting of an involving universe of symbols supported by technological items– modifying the natural circumstances of human life. Video games provide answers to specific human aspirations materialised in a peculiar historical context⁶. As many other aspects of our super-nature, video games are deeply rooted in some human characteristics; one could highlight, perhaps, their link to the human ability to symbolically represent certain types of actions that enable escape from reality and provide pleasure. These euphemistic actions (Durand, 1981: 409) are mainly represented in games –where actions that are symbolically related to types of situations of everyday life take place, but where there are no direct consequences beyond the space of the game – and in “games that are only imaginary”, in other actions that cannot even be carried out, but are performed in the imagination –although these imaginary actions have in many occasions been registered on different media in order to transfer them to others, so that they can also realise their own dream world through them and perform it thanks to them. The above types of euphemistic actions have materialised in the different historical contexts developing, amongst other ways, by means of different types of games and narrative –characteristic of the *homo ludens* and the *homo narrens*.

This is why the digital entertainment industry –like those exploiting other types of games –thinks of games as this singular manifestation of human nature –although not exclusive to humans–, which, for some, is older than culture itself. Games constitute a millenary and peculiar symbolic expression of certain dimensions of the human being –linked to both rationality and emotionality– that is revealed in a number of actions⁷, the performance of which can provide the player with significant pleasure and satisfaction –and, even an “optimal experience” in the sense understood by Mihaly Csikszentmihalyi (1990). Video games are a special historical representation of games and this is how the production industry is

⁶ According to Peter Sedzwick in a comment on the concept of technology in Heidegger, “...this means that technology is generally taken to be a means to an end, and this implies that the desires and purposes of humans constitute an exhaustive definition of it”. (Sedzwick, 1999: 408).

⁷ Or more accurately, according to Gregory Bateson, as “... certain framing of actions” (cfr. Walter, 2003: 4).

interested in becoming well acquainted with all the conditions a game must have⁸ in order to fulfil them.

However, as mentioned earlier on, these games are linked to a specific technical piece of hardware with its most significant representation in the screen display, that is, that communications circuit platform producing a continuous flow of images, sounds and texts, so omnipresent in different spheres of our daily life, especially leisure. For decades the display has played a very important part in our leisure time, providing for the “dreams” of hundreds of millions of people of a vast part of the world. This has been accomplished by the use of certain cultural products –on which we project our dreams in order to perform euphemistic actions – based on different cultural traditions of our societies –myths, narration– to which they confer specific features. The products created and distributed by the cultural industries have instituted, amongst other issues, some forms of communicational and representational relationship, as well as accumulating a stock of invented images –that is, an imagery⁹ (Durand, 1981). In this process the set of media products gives shape to a cultural matrix shared by millions of people throughout time and space and it performs a significant role in their everyday lives.

Across the screen display

Some of the most consistent roots of the video game phenomenon are in this cultural matrix. Popular culture, particularly the packed culture that has been distributed for decades by the cultural industries, constitutes a large source of images, sounds, ways to draw public and audience attention from which the video games’ creators¹⁰ feed and to which players come to create their own symbolic environments, although later in time they will identify video games as a new way to obtain pleasure. Those representations of the popular culture have allowed us to project our own dreams –giving satisfaction thus to our aspirations – on

⁸ Based on the work of authors studying games such as Huizinga (1938), Callois (1958), Avedon and Sutton-Smith (1971) and Sutton-Smith (1997), but also increasingly interested in studying emotional behaviour and other elements of similar importance for games.

⁹ Although the dominance of this imagery originates from Anglo-Saxon cultural components, however, there are other cultural influences found in both classical –Greek tragedy and comedy, for example – and contemporary –such as the major influence to imagery by Asian cultural products, such as the manga and martial arts films. The imagery with which the cultural industries work gathers all the cultural stimuli that come useful, regardless of their origins. Apart from this and although it is concentrated mainly in certain areas of the Anglo-speaking world, there are also production areas situated in different cultural contexts providing cultural stimuli to users scattered in the world, thus constituting some type of production nodules for a world-wide network (Schroeder, 2000).

¹⁰ Tom and Carlos, two video game designers interviewed by us, acknowledged that the main source of inspiration and reference they used in order to create their games were comics, films, TV and other displays of popular culture. Miguel, in a different interview, pointed out that in order to create the sound effects of a video game he always used sounds –often pre-recorded- that had already been used in the audio-visual industry (“... it needs to sound like at the cinema or TV”) for his models.

images, either “with light” on the screen display or those “happening behind” the electronic display. Video games, furthermore, make it possible, as in the case of Lewis Carroll’s Alice, for the player to “go across the screen display” (Aguilera and Mañas, 2001), immerse himself in the dreamed setting and participate in it. Video games allow the user to turn from a simple spectator who contemplates dreams, into an active spect-actor (Bettetini and Colombo, 1995: 24) where the player, immersed in the interactive context, performs the role of an actor and a spectator at the same time.

To a certain extent, “the medium is the message”. Video games are supported by a technological piece of hardware that, amongst other things, generates ergodic literature (Aarseth, 2002) and makes it possible for its users to explore and experience –by immersing themselves into them– these imaginary worlds from a privileged point of view, as the ability to control participation in the communication flow increases notably amongst video game users due to the technical characteristics of their hardware, the most outstanding characteristics of which are probably interactivity and simulation. The former can be understood as the imitation of interaction by a technical system with one of its main objectives being to serve a communication function with or between users (Bettetini and Colombo, 1995: 17), simulation, on the other hand, is essentially the ability the system has to imitate the operation of any other system, whether real or imaginary. Interactivity, which is also a term with a great deal of connotations largely produced by the industry, presents itself as a specific form of simulation, allowing an intimate and emotional user involvement, providing him with some kind of emotion on participating and being able to have control –even, being the leading actor of the story. Simulation in turn reinforces above all the basic mechanism of the game: voluntary belief in the episode one is participating in (credibility and elimination of disbelief). Certainly, both depend on specific representation procedures: linguistic conversion of objects, characters, situations, actions, by means of computer programming, which forms part of the algorithmic transfer into digital media –and this explains the reason why behavioural psychology is present in video games. But it is precisely that enormous ability of simulation that orientates and encourages the development of computer-based communications (Aguilera and Mañas, 2001: 82), as simulation, as it was well understood by Reeves and Nass (1998), is supported by our psychological reactions on confronting any issue or situation, either natural or artificial, of our environment –and the technical system emulates actors, instruments and situations. Thus, the laws governing these artificial worlds based on this technical system coincide in the

essential aspects with those governing the relationship and cognitive procedures of human beings, as only with those laws the necessary effect of a perceived credibility can be caused (Bettetini and Colombo, 1995: 100).

The screen display is the most outstanding component amongst those integrating the interface of the video games' complex technical system. This interface provides two semiotic subsystems for the player: perceptive and active (Mañas, 2000: 144-7). But the screen display also represents the interface with a dream world: dreams shared by millions of people in different space and time contexts, which the user may cross thanks to the technical characteristics of the medium and enter as a new spect-actor into the dream episode or imaginary reality –imagined within the framework of the game. Therefore the special technical characteristics of the hardware attain a peculiar fusion between the games and the imagery narrated by the cultural industries, which has been wisely developed by the video game industry, instituting an attractive form of digital entertainment. By implicitly accepting this mediation (Bennington and Gay, 2000) –technological, discourse-related, economic– represented by video games, the players look to use them in order to keep their personal experience, to be entertained, gain pleasure and own satisfaction. And in order to experience this pleasure, they do not mind investing their time, energy and money.

Professional Logic in Production

This is why there emerge more and more attempts to explain, amongst other aspects, the reasons why players use this form of entertainment¹¹, what their peculiar experiences consist of –the way they are provided and maintained – as well as in summary, the key to such an enormous success. Amongst the more classical explanation attempts we find Tom Malone's, who comprised the reasons for success into three elements –fantasy, use, curiosity– (Malone, 1981) or that of the Deliberder brothers, who stated the "ability to provide players with an appropriate combination of competition, fulfilment of a challenge, management of a system, curiosity about the story and show" (cfr. Levis, 1997: 182), although currently there are also other additional factors, based on different lines of explanation –such as the games theory. However, my point of view, in brief, is that an appropriate explanation is given by the conception of video games as special and effective technology in service of euphemistic actions, turning the player into

¹¹ Researchers have offered an extensive and comprehensive list of types of gratification users can obtain from video games, however, the main subjective factor explaining the use of these games can be summarised in the following word: fun.

a spect-actor who can then obtain a singular experience that is always fun.

Regardless of the line of explanation we choose, the industry in any case aims at getting to know the users as well as possible in the context of their relationship with the medium so as to provide the products required for their satisfaction and those capable of satisfying their gratification aspirations, however much they might be aware that the video game phenomenon covers an extensive and diverse range of representations manifested in different platforms and contexts, including very varied types of contents and affecting the vast majority of the young population of different societies –that is, millions and millions of players with different personalities and circumstances. This is why this industry strives to generate a variety of experiences (Pagulayan and others, 2002: 889) with their products –offering a wide portfolio of games, but also enabling each game to be used by users with different gratifying ends. In the same way that there is not a single type of video game –platforms, contents– there is not a single type of player: “There is no such thing as a player personality. Different players look for very different elements in games. Furthermore, they are motivated to play these games for different reasons, and get different things out of them” (Yee, 2002: 13).

As it has already been pointed out, the user centered design constitutes a ruling principle for this industrial activity. However, in the design and creation of these products –as a result of their inherent complexity and the series of skills they require– there is also a range of items of knowledge accumulated for years, which, although originally served various criteria and points of view, they however gather around the production of video games that are capable of satisfying players and therefore susceptible of achieving the appropriate commercialisation and provide economical returns. This issue characterizes all cultural industries and becomes evident in the continuous influence of certain norms ruling both the production process and the contents themselves. And Computer Science is the another issue that must be highlighted - as it is software we are dealing with. However, there are also other experts presenting different logical statements such as that of the “user”¹² or those of the “artists” –denomination that comprises a varied group of experts working in different aspects such as narration, visual aesthetics, sound effects and others. In this complex

¹² The production of a video game often involves the help of an expert player whose role is to try to make the product comply with the generic principles that would contribute to his own satisfaction and by extension, that of the other potential players.

production process –although coded to a large extent¹³– a team of experts, generally large, which is subject to several determinants – amongst others, those of the production context itself– contributes with different opinions to producing games that, providing a proper commercialisation, following the criteria established by marketing, amongst others, can draw the user’s attention. These experts¹⁴ intervene in several stages of the value chain comprising this industry, create and commercialise cultural products –based therefore on the exploitation of intellectual property rights– so as to draw the attention of the user to the extent that the latter will be happy to invest his time, energy and particularly, his money, in the search for the development of his cultural practice for his leisure.

In spite of the video game industry being involved in the intense search for different principles and procedures to establish and improve their business practices, however, producers had years ago already achieved a specific technicality –in the technological and communicational levels. But, if the necessary procedures to pack video games as cultural products are currently established with commercial criteria–amongst others–, however, the initial steps of this activity were mainly led by computer technicians who had intuition –often successfully, although wrong in many occasion too– with regards to what might be likeable to players. In the words of several of those pioneers¹⁵, that intuition was significantly nurtured on the personal likes of the creators themselves, who nourished themselves off the popular culture sources and were often themselves very proud players of different types of games.

The predominant logic in the design and creation of video games – although always subordinate to the economical purposes associated to this activity– is still computer science, which however, must have endorsed –and to some extent, absorbed– skills from other expert fields. Amongst others, as I pointed out earlier, psychology¹⁶, particularly its behavioural branch, the importance of which is explained by the usefulness of several of its principles, amongst other reasons –especially the existing determinant– for video game

¹³ As some experts expressed during the interviews we had with them, this coding is due to classical principles of North American business management, which emphatically establish functions for the different experts and ways to perform them, setting at the same time a monitoring system so that these are correctly complied with. Additionally, the coding is currently supported by different computer programs –both middleware and specific programs for the management of the production processes, the human and technical resources. A more detailed version of some aspects of this production process can be obtained from the following sources: Ryan (1999), Davies (2000), London (2002), Bethke (2003), Kreimeier (2003).

¹⁴ Who are grouped to become the “collective author” of these cultural items.

¹⁵ Tom, in personal interview.

¹⁶ “Psychological techniques have been effectively used by video games for years, simple because we all live in the same world and decode our surroundings using basically the same physical an mental machinery” (Duvall, 2001: 1).

producers, particularly on establishing the relationship between the user and the game and shape their emotional reactions –registered and manipulated by the game–, as well as its simple algorithmic translation. In addition to the psychological field, it has acquired other specialised knowledge such as the marketing principles, business management or the wide and diverse expertise and skills accumulated by several cultural industries –particularly the audio-visual– for decades, which are increasingly necessary for the video game industry in order to reach new audiences and adapt to other commercial demands currently present in this activity sector. The maturity reached by this medium takes its production industry to firmly occupy the position it currently holds in the digital entertainment sector and consequently, to alter the predominant position occupied up to now by information technology experts (Brew, 2001). From now onwards, computer science knowledge must serve the content it supports, the skills required to conceive and develop these contents becoming –in this special technical medium– the predominant features.

Systematisation of concepts and key elements

The different specialised items from different areas of knowledge come together and fuse in a peculiar melting pot: the technicality achieved by the experts of this industry, which already holds a significant exclusive specialisation, although it might still be marked by the dominance of computer science. So, this number of unified pieces of knowledge serves the user centered design, which in each specific production situation materialises having two key questions: what type of a design must the product have? And how will this design affect the user's experience? In order to direct production, but also measure some qualitative aspects of the relationship between the user and the product, this industry has coined a series of terms, which mainly refer to integrating aspects of the video game definition. Thus, apart from some mentioned earlier on and others with different levels of importance (game world, game culture, game flow, ...), the following can be highlighted:

- **Durability:** it refers to the time, on average, that a player spends using the product from the moment he purchases or acquires it and starts exploring it until the moment in which he sufficiently manages it, having "gone through the different screen displays" and succeeded in the different levels. This term is therefore associated to an industrial requirement for maximisation of the subjective relationship the user establishes between the economical investment and the pleasure time of the game.
- **Usability:** term with a long tradition within software engineering, which here means the aptitude of a game for any user to be able to use it easily. It is associated to internal

mechanics of the different software components governing the development of the game, as much as the different interface elements –at hardware and software levels– the user comes into contact with.

- Playability: like the previous one, this is associated to the video game-user interaction, although this might be a more abstract concept, as it refers to the aptitude of a specific product to provide the user with the feeling of it being a game, suggesting fun and pleasure during his experience of use of the video game. From the point of view of the game design it refers “to the guidelines regarding how to implement the necessary elements (such as rules) to give birth to a desired sort of gameplay or social entertainment” (Järvinen, Heliö and Mäyrä, 2002: 17).
- Gameplay: this term is equally associated to the video game-user interaction and can be understood as the full process a user needs to follow in order to achieve the final purpose established by the game or as the time during which the game imposes its rules and environment to the user. The interaction between the player and the system is associated to specific game patterns –established depending on the type of game, but also developed in each game experience–, configuring specific gameplay gestalt (Lindley, 2003: 2). In summary, this term refers to the experience of “playing a video game” and it is therefore comprised of a sensorial completeness into which the player immerses himself including kinaesthetic, rational and other different elements – in summary, all the active elements of the game that require and guide the player’s attention.

The video game industry is immersed in a systematisation process of the different pieces of knowledge and skills contributing to its technicality, which translates, amongst other things, into a series of terms that are quite regularised in terms of their application to the production of video games (Federoff, 2002). But it also comprises other less regularised types of knowledge coming from professional experience, which are probably necessary to achieve the success of the product.

Amongst them, the convenience of obtaining an appropriate balance between the level of challenge established by the inherent difficulties of the game and the satisfaction or frustration that surpassing them might generate, between the risks implied in the game when a choice between options is required (dilemmas) and the rewards obtained (Bocska, 2001; Hopson, 2002), as well as the degrees of realism and fiction present in each game; besides, the

game might be quite “polymorphic”¹⁷ and offer present multiple strategies and tactical options to respond to the challenges posed – without presenting an obstacle for the player to be able and forced to find action patterns, that is, the repeated display of certain abilities and ways of acting already learned on surpassing specific challenges (Mount, 2002). Amongst those pieces of knowledge that are less systematic, the main subjective elements are also included where the satisfaction obtained from the experience of the game by a user appears to be based on: the levels of enjoyment (fun), aptitude for use (usability), a challenge to the user’s abilities and the rhythm (pace) which these and other elements of the game might pose (Pagulayan and others, 2002: 895-8). In the same way, the key elements all (of course, there are too specific elements for the diverse segments of the market) video games should gather in order to provide satisfaction to the user, and consequently be successful, can be summarised as follows:

- Video games must pose a number of difficulties to the user that challenge him at the same time as allowing creativity, learning to establish objectives, strategies and tactics in the context of the game, as well as acquiring –mainly based on testing with success and failure– the necessary abilities to master the game.
- Video games must provide a system of suitable rewards in order to keep the users interested. Since the act of playing is a voluntary one, the ability to keep the motivation of the user is of primary importance. This is why some of the principles established by behavioural psychology have been considered important, particularly its outlines on the reinforcement of a behaviour. The video game industry feeds its work with the results obtained by these psychological efforts in order to first of all understand how players learn and react to situations suggested by the game, and secondly to determine the activity pattern required to be put to users in their relationship with the game. The basic statement therefore relies on ideas such as reinforcement, contingency and response. Although there can develop several other procedures, more or less acceptable, depending on the type of game and other circumstances, however, the most frequently used in general terms is that based on the “variable ratio schema” (Hopson, 2001: 3). The implementation of these pieces of knowledge by the video game industry supports the design of products incorporating mechanisms aiming at keeping the user at a constant and intense game level or at his finding a reason to continue playing. Some experts believe that the application of

¹⁷ As expressed by Harry during our personal interview.

behavioural knowledge is of primary importance: "There are numerous other things that influence players, but the basic patterns of consequences and rewards form the framework which enable all the rest. By understanding the fundamental patterns that underlie how players respond to what we ask of them, we can design games to bring out the kind of player we want" (Hopson, 2001: 6).

- Use of the technology behind the video game and, particularly, several of its elements, such as interactivity or those enabling the creation of visual and sound effects, must serve the user and not be employed for the esthetical or technological recreation of the designer. As is, for instance, the case of other audio-visual technologies, the medium should be invisible and provide the game with all the necessary resources for the player to obtain the feeling of control, immersion, of composing the story being developed within the game environment and, in summary, for the user to be able to build his own experience and for this experience itself to cause him to "think clever thoughts and feel profound emotions" (Pagulayan and others, 2002: 892).
- With the purpose of achieving the emotional involvement of users via the plot and particularly, the characters, games must, generally speaking, rely on some form of narration that is adapted to the discourse specifications of the medium (Luban, 2001) and the type of game in question. In order to satisfy the different types of game experience searched for by the different users, this industry classifies its products into several genre with their basic features in the combination of more or less of three key elements: repeated interaction (gameplay gestalt), simulation and narration (Lindley, 2003: 1).

A digital entertainment industry

Although the specific characteristics of the narration types for video games and the narrative singularity of this medium might constitute some of the most debatable aspects currently being dealt with by the studios and the experts, however, there are only a few that can currently argue against the fact that every game must be supported by some type of narration –even when the types of narration and their levels of importance in the game might vary notably depending on the video game in question, due, amongst other reasons, to the convenience of increasing the audiences for this cultural practice. If some of the first and most significant representations of video games were identified with the mere satisfaction of primary emotional features of young males –"raise

adrenaline by killing enemies”¹⁸ – currently users are not satisfied any more with these types of video games and particularly the large and varied audiences this industry is currently covering.

The range of users who experience, with more or less frequency, this cultural practice is more and more varied and broad. And consequently, so is the series of experiences experimented by these players and the types of gratification they search to fulfil, which are in turn portrayed in the large portfolio of titles that the video game industry has on offer. However, users are searching above all for their enjoyment of the game, their exploration as spect-actors of symbolic settings and satisfaction at the same time of other more specific aspirations, particularly those associated to certain products of the popular culture that have been offered to them by some industries for years. These products are designed with the purpose, amongst others, for users to alter –by means of the experiences that have been proposed to them– their emotional states (Reeves & Nass, 1998: 138-9) and it is here where video games offer an additional advantage on enabling more personal control.

Video games take a large number of elements from the universe of narration and imagination created by the cultural industries, particularly the audio-visual industries. Generally, their reference framework is not constituted by reality itself, but by the represented forms of reality instituted by these industries, which, in other fields, involves the adoption of some of the more classical elements of narration than those the industries reformulated. Therefore, particularly certain game genres, such as action, strategy and role, use the narrative structure divided in three acts (Pagulayan and others, 2002: 886) which required special adaptations for this medium so that the player can have the feeling that he himself is making up the story to some extent (Littlejohn, 2001: 2). In a similar way to what used to be done with other media –as their narrative effectiveness has been compared for centuries, resulting in easily identifiable patterns– video games employ a structure in order to introduce tension (suspense) and favour the identification of players with characters and situations, managing this way to eliminate their disbelief and increase their emotional involvement. The narration plot additionally provides coherence to the narration’s set of elements and allows to keep the user’s attention in moments of the game where he can rest from pure action (Carson, 2000).

As well as borrowing from the classical drama structure, they also find their source of inspiration in the most ancient myths. A great

¹⁸ According to the words of Fernando, the Artistic Director of a company, a developer and enthusiast of video games for years, who in a personal interview acknowledged that for years this used to be the main type of satisfaction sought in certain games.

deal of the narration items offered by the cultural industries, amongst them the video games, only repeat the same major themes of our culture, thus achieving a successful meeting of what is permanent –represented by myths and their archetypal elements – and what is transitory –only characteristic of the specific historical moment and personal experience– (García Quevedo, 2000: 9). The film industry, TV and other narrative media have perpetuated the mythical structure of our societies –particularly, the myth of the “journey of the hero”–, readapting it after its subjection to industrial formats (García Quevedo, 2000: 41-2/ Dunniway, 2000: 3) and also incorporating elements from other cultures. Video games again acquire these narrative traditions, adding a certain level of specificity, so that not only do they make it easier for the user to have the feeling of belonging to a kind of community, but also they allow him to dive into those myths and explore their imaginary realities experimenting with them at the same time (Jenkins, 1998).

The learnings video games take from other industries of culture and entertainment¹⁹ are not reduced to the above-mentioned. Much to the contrary, the specific technicality of video games also depends on the adoption of many mechanisms developed by these industries in order to reduce the risk –and, wherever possible, secure success– of a set of products with a basis on the exploitation of intellectual property rights within highly competitive markets²⁰. This technicality is being more and more clearly defined due to the outstanding position occupied by this industry within the digital entertainment sector.

Discussion

Video games are a wonderful business by means of which the digital entertainment industry –which has a much higher turnover than other industries of traditional culture– can provide a symbolic universe that millions of users scattered in the whole planet make use of and enjoy. This social and cultural phenomenon can be, in turn, defined as a new medium of communication, which is already quite mature and settled in our society –where it is linked to the existing power relationships, amongst other elements. This maturity –which, to some extent, can also be understood as institutionalisation– is associated to the acquisition of a specific

¹⁹ As many other game traditions such as card and role games.

²⁰ As an example to briefly highlight, there are, amongst many others, procedures such as: the high budget work production –AAA category– which become *killer applications* of a specific brand; the serialisation of successful products –which might even allow franchises being created with exploitation of different formats –, the standardisation of contents, focusing on specific subjects and handling methods and exploiting in this format those that are already highly successful amongst the followers of popular culture; the development of products that are easy to identify –“those that can be summarised in one sentence” (Molyneux, 2000)–, and are therefore suitable in order to avoid the pitfalls of distribution and sale; the creation of virtual stars that make it easier to identify the user with the character and to carry out the marketing work.

technicality by its content production industry, amongst other aspects.

The importance achieved by this phenomenon undoubtedly requires a rigorous knowledge of it –a task in which an increasing number of academics and experts is already involved. But, scientific research on communication rarely involves the study of its production processes and the logical statements ruling them, which is also the case of video games. In spite of the existing great deal of research into several economical aspects of this industrial activity, there are still many gaps in terms of publishing and attention like, for instance, the production process itself –routines, decision-making, leadership– or the media workers –professional qualifications, recruitment, composition of the workforce, the professional activity discourses– amongst other aspects.

Obtaining the adequate technical knowledge in order to “pack culture” –create and commercialise cultural products successfully, satisfying the user’s aspirations of gratification– constitutes one of the essential requirements for the development of any cultural industry as well as for the video game industry. In only a few years this young medium has established some level of technicality, which is subject to continuous modification, due to its determinants, and improvement. In this “packing” process a number of experts gather together with different skills that are necessary due to the inherent complexity that lies in the creation of these cultural items –who participate of it as social actors within institutional contexts – cultural practices and business organisations. Amongst the criteria governing the production of video games the economical factors are of primary importance –jointly with the industrial sector’s own objectives. These criteria are shown very clearly in the definition of the business and business management, but they also have a significant presence in the production of the cultural item itself by means of procedures such as the following: established marketing objectives, regular controls on production to confirm its suitability for the economical objectives, participation of the producer and the representative of the user’s interests in the process, high systematisation of the production process –establishment of modes, phases and timescales.

In spite of the subordination to economical restrictions in the design and development process of these cultural items, the different software experts have held prime importance up to now. They have established the main ruling principles in the creation of this cultural merchandise adapting, in many cases, the established knowledge in other sectors of software engineering, as well as incorporating the knowledge originated in other fields of knowledge –such as

psychology and some narrative arts. But the market, the structure of the sector, technology and other elements within the video game environment are modified and with them the professional views that had been dominant until now. In summary, the consolidation of this social and cultural phenomenon –at the same time as that enormous section of the market occupied by digital entertainment– and its development to maturity as a means of communication have a reflection not only on a greater presence of knowledge and criteria from other cultural and show industries in its technicality, but also, and above all, on the increasing importance that those experts who gather one or several of the skills required by the complex video game production process have for its development.

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