

Ludoliteracy: The Unfinished Business of Media Literacy

Daniel Aranda

Faculty of Information and Communication Sciences
Universitat Oberta de Catalunya
Spain
darandaj@uoc.edu

Jordi Sánchez-Navarro

Faculty of Information and Communication Sciences
Universitat Oberta de Catalunya
Spain
jsancheznav@uoc.edu

Abstract— Digital games and videogames are a part of the ecosystem of media around us, however, they are not given sufficient attention in media literacy policies in the context of primary education, universities or society. This article advocates for incorporating digital games and digital gaming as indispensable in media literacy.

Keywords—videogames; media literacy; ludoliteracy; digital games

I. INTRODUCTION

Digital infrastructures in today's society are not only composed of the Internet, social networks and mobile devices. Digital games also take up part of the time and effort of young people and adults. Digital games, in all their guises and devices (consoles, PCs, tablets, mobile phones, etc.), are a cultural industry of great economic importance that generated an income of 75.5 billion dollars worldwide in 2013 (Newzoo, 2014).

It is only in recent years that playing video games has become a mainstream activity, since the perceptions of gamers have moved from being a socially stigmatised subgroup to a majority activity (Ericsson, 2014). The increasing diversity in game types as well as platforms has led to an increase in the types of people who play video games, with a particular increase in female and older players (ESA, 2014).

Play, in all its manifestations, as exhibited by animals or human, digital or analog, has a significant cultural and social importance in any civilization, human group or community. Videogames and digital games are a part of the ecosystem of media around us (Dovey & Kennedy, 2006). In the current digital context, digital games have experienced a tremendous growth in audience and diversity in recent years. Playfulness, gamification or digital gaming permeates personal relations, business and education with a hitherto unknown intensity: it was forecasted that prior to the year 2014 70% of the top 2,000 companies in the world will use and apply Gamification (Jung & Hawan, 2014 : 22). In relation to mobile content services, games are the most downloaded

apps and they also make the most revenue (MobiForge, 2013; App Annie, 2014).

With reference to this gaming phenomenon there are two kinds of contrasting popular discourse. The first asserts the importance of playfulness and its potential to generate cultural, educational and economic innovation processes in today's society, and the second criticises the excessive presence of playfulness, seen as a threat to productivity in all spheres of society (study, work, social relationships). Spheres such as the economy, marketing, health or professional training, which until recently could be considered as totally distant from anything playful, find new spaces for the development of game-based practices and activities in phenomena such as gamification.

Stuart Brown, founder of the National Institute for play and author of *Play. How it Shapes the Brain, Open the Imagination, and Invigorates the Soul* (2009), describes the meaning of the act of playing and the cultural and social implications of games, both for animals and human beings. According to Brown (2009), games are a catalyst for positive socialisation and he postulates that the antithesis of playing is not work but rather depression. Play is fundamental, he argues, because of a biological urge that is necessary for survival and that playing is vital for human beings from a biological evolutionary, as well as from a philosophical point of view.

Therefore, we argue that it is necessary to begin to incorporate digital games and playful digital aspects, and an understanding of their place in society – Ludoliteracy – as an indispensable part of media literacy. Ludoliteracy must be a part of the competences, skills and communicative and cultural literacy of our times if we want young and adult citizens to have the necessary skillsets to understand, create, analyse and enjoy playful media, a language and an experience that completely permeates modern life.

Livingston (2004: 4) defines traditional media literacy as "the ability to access, analyse, evaluate and create messages in a variety of forms. She is aware that the advent of the information society (a concept coined by Manuel Castells, 2001) and the generalized use of different digital technologies requires the construction of a media literacy that promotes more than



isolated skills in a general conceptual framework independent from the media necessary.

“Visualize someone reading a book, watching television, playing a computer game, searching the World Wide Web – evidently there is not only skill involved but also an interpretative relationship with a complex, symbolically encoded, technologically mediated text. I suggest that, as people engage with a diversity of ICTs, we must develop an account of literacies in the plural, defined through their relations with different media rather than defined independently of them” (Livingstone, 2004: 8).

This angle, the need and obligation to contextualise media competence according to and related to the texts and technologies are what gives meaning to Ludoliteracy and the reason why it deserves special attention. In this article, we will first discuss the current status of the field of academic gaming, presenting the social and cultural analysis of play and games, the classic model of games, exploring the pleasure of games and their value in the social sphere. Second, we will present the notion of ludoliteracy and make a case for its importance within media literacy. Finally, we present a model for ludoliteracy, and the main competencies and skills that should be considered within it.

II. CURRENT STATUS OF GAMING THEORY

In the academic context, Game Studies encompasses a wide variety of disciplines and researchers have studied commercial videogames, game-based learning and serious games from different points of view for some years. Above all, this evolution of the academic context has generated an enormously valuable and useful cultural capital (data, theories, concepts, answers and new questions) from a range of discipline perspective. As a result of this academic cultural capital, we know that video games and digital games are currently a privileged media from which a large part of society improve their digital skills and competences necessary for the current digital society, their digital literacy (Jenkins, 2009; Aranda & Sánchez-Navarro, 2009, 2011; Gee, 2004a, 2004b; Buckingham & Burn, 2007). This is achieved in many ways: by playing games people obtain pleasure and fun as a fundamental tool for cultural reproduction (Huizinga, 1971; Sherry, 2004), creative participation is promoted through video game fan communities (Wirman, 2009; Hills, 2002; Consalvo, 2007); players socialise and strengthen bonds with their peers and at the same time generate exchange networks (Jansz & Marten, 2005; Zagal, 2010; Taylor, 2006; Dondi, Edvinsson y Moretti, 2004); and curricular and extracurricular contents and skills are developed (Gee, 2004a, 2004b; Lacasa, 2011; Whitton, 2009 & 2014; Mitchel & Savill-Smith, 2004). There is not only a huge body of research about the positive aspects of the daily and educational use of videogames but also scholarship focusing on negative aspects such as psychological disorders (Chappell et al., 2006), aggressiveness (Gentile &

Gentile, 2008; Anderson, 2004) and racist and sexist behavior (Burgess et al., 2011; Dickerman, 2008; Leonard, 2003).

A. Social and Cultural analysis of play and games

Huizinga (1971) argued that two main objectives of the culture of a society are those of reporting pleasure and strengthening social relationships between members of the culture. Culture is not only a collection of texts, works or images (without entering into the discussion of high and popular culture) but also a collection of processes that allow us to think, relate and, evidently, enjoy. Huizinga stated that human characteristics such as thinking (*sapiens*) and doing (*faber*) that are intrinsically linked to our social and cultural evolution, have to incorporate playing and our capacity to play, the "*Homo Ludens*". Playing is understood as a distinctive and vitally important factor in the social and cultural world of humans: "for some years now I have had the conviction that civilization arose and developed as a game" (Huizinga, 1971: 67).

However, any attempt to define the activity of playing and games themselves offers the same problem, which is the ambiguity of the concept, due to the complex and varied types of games and practices. Sutton-Smith, one of the seminar thinkers in the social and cultural analysis of playing, in his book *The Ambiguity of Play* (1997), dissects the ambiguity of play and how this ambiguity is transferred to the field of game study. He defends the idea that the ambiguity of games lies in the diversity of forms of games, in the diversity of players, the multiplicity of types of equipment needed by games, the different scenarios where games are played, and the plurality of pleasures they produce. To shed more light on the issue, Sutton-Smith (1997: 304-306) proposes what he calls the "rhetorical solution" (discourse, arguments and theories that have a persuasive, ideological aim). This solution results in a classification of games according to seven rhetorical discourses that define games according to different beliefs, arguments, ideas or theories, often antagonistic, at other times complementary, but always partial, incomplete or fragmented. By analysing the rhetorics in detail and scrutinising the ambiguities each of them hold, Sutton-Smith proposes to establish the degree to which ambiguity is a result of the discourses used to discuss games or if, on the contrary, ambiguity is in the nature of the game itself, making its definition impossible.

Games and their practices are therefore a confusing field, superimposed with opposite and irreconcilable discourses that are used to define games and play from ideological positions that do not depend so much on the formal or dynamic characteristics of the game itself, but rather the discourses that are used to discuss them.

B. Games and sociability



Playing (and playing video games) is an activity that reinforces social bonds and self-esteem (Willianson & Facer, 2004; Sherry, 2004; Feike & Nicholson, 2001; Jansz & Marten, 2005). Video games, and gaming in general, improve the quality of our social relationships, enabling spaces for relaxation and pleasure. Playing is a way in which to minimise the consequences of our actions and therefore a way to learn in less risky situations (Goldstein, Buckingham & Brougere, 2004). In essence, as has been argued by Egenfeldt-Nielsen (2011), learning is incorporated into the structure of video games, making learning an inevitable outcome of playing. As stated by Gee (2004a), video games are particularly good spaces in which people learn to locate meaning and build it through experience.

Video games enable the young (and not so young) to strengthen social ties with their peers; while at the same time they strengthen the creation of material exchange networks (video games, magazines, consoles) as well as an exchange of knowledge about clues, tricks or passwords (Aranda & Sánchez-Navarro, 2009; Wirman, 2009; Consalvo, 2007). Understanding the meaning of playing video games is evidently related to thinking about what happens at the moment of hardware-software-player interaction, but also, and with even more importance, with all the processes related to the discussion, evaluation, comparison, exchange, social relationships and the identity of the players (Mäyrä, 2009; Jenkins, 1992, 2006).

Consalvo (2007), taking Bourdieu's (1970) concept of cultural capital, coined the concept of gaming capital, suggesting that to be a member of a community of players or simply an apparently isolated player is more than playing video games or playing them well. The idea is to have command of the secrets of video games, their updates and also to be able to communicate this information to others (Consalvo, 2007). Gaming experience is a complex phenomenon that occurs in a sociocultural context (Mäyrä, 2009; Frasca, 2001). There are many reasons that point to the need for a more exhaustive vision of the player's experience as something that does not only take place just while playing the game, but is rather a more extensive phenomenon. Gaming experience is predefined, modified and post-defined by the multiple dimensions that form part of the networks of meaning established around playing.

For this reason, the relationship between the texts of popular culture, such as video games, and their multiple audiences is active and productive. No text bears its own meaning in itself, or its political agenda, or in other words, no text is able to guarantee what its effects will be. As Grossberg (1992: 55) stated:

"People struggle constantly not just to find out what a text means, but also to make it mean something that connects with their own lives, experiences, needs and desires. A same text will mean different things to different people, depending on how it is interpreted. Different people have different interpretation

resources, just like they have different needs. A text can only mean something in the context of the experience and the situation of the specific audience".

The discipline of Cultural Studies has largely shown that our relationships with the products of popular culture work through the production of pleasure structures, and digital gaming is no exception. To analyse how these pleasure structures are created is fundamental in order to understand the cultural importance of a phenomenon such as video games.

Wirman (2009) points out that the authority of the cultural use of video games is shared between designers and players. First, games are played in what is supposed to be a performance activity (Squire, 2008) because "the games, as media and as technology involve the users, in unique ways which produce as a result multiple forms of coproductivity" (Wirman, 2009: 147), and this differentiates them from other media based on reception. The player co-produces the game by the mere fact of playing, on updating a text, which without being played, would be simply potential. In addition, video games have been shown to be an especially fertile terrain for the participation of the public in very different forms (Montola, 2012; Wirman, 2009). Wirman (2009) identifies these diverse manifestations such as: configurative productivity (how the fact of configuring a game in a certain way implies a participation in the text), instrumental productivity (how the players express themselves while they produce elements of the game, such as guides) and expressive productivity (how players can use game elements for their own expression). Any study of these forms of participation will reveal the enormous potential of video games for the production of very diverse pleasures.

In a diametrically-opposed position we can also find academic literature critical of the corpus of game studies, mainly from the field of psychiatry or clinical psychology that highlights the dangers associated with consumption of video games. Among other factors, they refer to psychological disorders, addictions or aggressiveness (Chappell et al., 2006; Etxeberria, 2011; Gentile & Gentile, 2008; Anderson, 2004; Burgess et al., 2011; Dickerman, Christensen & Kerl-McClain, 2008). The authors of this article tend to be sceptical about the alarmist discourses, because they are typically focused on exceptional uses and behaviours. However, it is also evident that these approaches must be a part of the wider cultural capital around digital games and more specifically video games.

In short, we consider that video games are not just a powerful cultural industry but they are also cultural and social artifacts, social and cultural tools for learning and reproduction that deserve special attention in current medial literacy policies. Ludoliteracy, therefore, underlines this need and complement Media Literacy with another focus of attention aiming to widen the knowledge and study spheres that enable "a strengthening of the capacity of individuals to interpret in an autonomous and critical manner the flow, the substance, the value and the

consequences of the media in all their different forms " (EAVI Consortium, 2009).

III. LUDOLITERACY

The aim of Ludoliteracy, as discussed previously, is that children, young people and adults achieve a certain control over their use of the media, in this case digital games. Different authors (Aparici, 1997; Masterman, 1985; Buckingham, 2003) consider that if adequate analysis guidelines and pedagogic, reflexive, critical, playful and creative proposals are offered, citizens will have instruments to make autonomous decisions on the messages (products and discourses) that they receive from the media about digital games. Thus ludoliteracy fits into media literacy plans and media education in the global context. Following indications of the UNESCO (2008: 15), the objective of media literacy and therefore literacy in video games is:

"To increase knowledge of the multiplicity of messages transmitted by the media present in our everyday life. It is expected to help citizens to recognise how to filter the media, their perceptions and beliefs, which configure popular culture and influence personal decisions. Today, media literacy is in fact one of the essential prerequisites for active and full citizenship". (UNESCO, 2008: 15)

In the European Parliament, Resolution of 12 March 2009, on the protection of consumers, particularly minors, regarding the use of video games, it appeals to the Commission to encourage:

"The exchange of good practices among national educational authorities in the short term, with the intention of including literacy in the use of games as one of the educational objectives of primary and secondary education; requesting all interested parties to carry out a regular exchange of experiences and information, with the aim of developing the best practices regarding video games". (European Parliament resolution of 12 March 2009)

Most of the educational proposals that include the context of video games focus on the use of video games as an educational aid at the service of contents. This didactic use of digital games aims to enrich and diversify educational content, making it more attractive and close to the reality of the pupils, through a medium that motivates and fascinates them. Serious games or educational games have been a very fruitful field led by the theoretical body of digital game-based learning (Gee, 2004) that focuses on the ways in which video games teach a set of new literacies, edutainment that use games as a motivational tool to make learning fun (Egenfeldt-Nielsen, 2011; Lacasa, 2011) or serious games that are used to serve a useful extrinsic purpose (Ritterfeld, Cody & Vorderer, 2009), and gamification (Werbach, 2012) that uses game mechanics in non-game contexts. More recently, Whitton (2014) argued for a

field of games and learning, which includes learning with entertainment or educational games in formal settings, analysis of the informal learning that happens in games when they are played for fun, learning that is inspired by games, learning about games as cultural artefacts, learning through building games, and the analysis of games and gaming communities to see how techniques and ideas from these areas can meaningfully be applied to learning.

Media literacy in digital games does not aim to use digital games as a didactic tool but rather as an object of study for its own sake. For Gatzidis and Poulsen (2010) understanding video games is valuable for its own sake as a necessary pedagogic prerequisite for all those interested in the educational use of digital games, serious game or game-based learning. In this manner, media literacy in digital games and digital gaming, ludoliteracy, aims to reflect on the technological, cultural, sociological and economic contexts of video games as media.

We need a Media Literacy that contemplates playful aspects that surround a multitude of educational activities, for training and even business relate to what Tornero and Varis (2010) call *awareness*:

"It is necessary to reach a new *media awareness*. This *media awareness* would help us to achieve two key goals: a) *ascertaining the importance and influence of the media system* in our everyday life and b) *developing the competences needed* to use the communication technologies bearing human goals and values in mind". (Tornero & Varis, 2010: 55)

Zagal (2010), based on the proposals of Gee (2004a, 2004b), contemplates video game literacy as (1) The skills to play (to read them), (2) The skills to understand the meanings related to the games and (3) the skills to create them. This definition, which is common in almost all the proposals (Buckingham & Burn, 2007; Gatzidis & Poulsen, 2010; Squire, 2005; Liginstone, 2004) defines video game literacy according to the functional skills (the access or reading), the analytical/reflexive capacity, and the productive competence (writing). Zagal focuses his proposal on the second dimension, the analytical and reflexive. This analytical and reflective capacity, he says, aims to improve the ability to explain, discuss, describe, frame, locate, interpret and position the games in the context of culture, as a cultural artefact, in the context of other games.

As we mentioned previously, a commitment to digital game literacy needs proposals that understand digital games as objects of study: reflection and critical analysis on the technological, cultural, sociological and economic context of video games as media. Buckingham and Burn (2007: 329) note the problems created by fundamentalism in the analytical and reflective perspective with regard to media education:

“There seems to be little place in some conceptions of critical literacy for aspects of pleasure, sensuality and irrationality that are arguably central to most people’s experience of media and of culture more broadly. An emphasis on critical distance fits awkwardly with the emphasis on immersion and spontaneous flow – and even the pleasure of addiction – that is frequently seen as fundamental to the experience of gaming. As such, we would wish to caution against a narrowly rationalistic conception of critical literacy – a conception that is arguably quite at odds with how the majority of players behave or might wish to behave.” (Buckingham & Burn, 2007: 329)

It seems clear that the scientific community coincides in indicating that a good approach in literacy should contemplate competence in reading, analysis, production, and the pleasure related to the sense of use of the media; a nuanced understanding and appreciation of the literacies surrounding digital games cannot be an exception.

IV. CONCLUSIONS

As mentioned in the report *ESF Forward Look* (Alvares et. al. 2014), educational policies around the study of video games in the context of media literacy are almost non-existent within Europe. Most of the initiatives around the use of video games in educational contexts refer almost exclusively to game-based learning approaches: the use of video games as a tool at the service of curricular or extracurricular contents, or the creation of video games (coding). Previous studies have highlighted the difficulty identifying media literacy practices related to video games. The report *Media Education in Four EU Countries* (Author?, 2013: 3), drawn up jointly by My Child Online Foundation and Kennisnet Foundation, affirms that "we have also not considered media education focusing on games —or using games— because hardly anything has been published on that topic". In our case, we consider videogames and digital gaming as new media. As we stated before, videogames are a part of the ecosystem of media around us (Dovey & Kennedy, 2006). Videogames as new media are defined as different technologies, means or channels of general communication, information, or entertainment in society that mediate our communication and affect how we perceive and understand the world around us.

Thus, Ludoliteracy should necessarily include the main aspects of Media literacy. Game Literacy needs proposals oriented to a better understanding of digital games as objects of study: reading/access; reflection/critical analysis on the technological, cultural, sociological and economic context of video games as media; and production practices.

We propose to establish and define the main competences and focuses that Ludoliteracy should consider:

Playing digital games. Meaning not only the skill/competence of playing a digital game but also equal opportunities to access and play games, and knowledge of gaming resources and technologies. Inequality barriers in gaming refer to the opportunity of access to a diversity of platforms, genres (not only mainstream) and gaming technologies that allow population developing the competences needed to use a heterogeneous and complex communication technologies in their leisure but also in learning or disability contexts.

Understanding digital games. Understanding the social, economic, cultural and technological meanings of digital gaming, focusing on analytical/reflexive/critical skills that comprise among others, the following topics:

- Digital gaming as an activity: pleasure, sociability, flow and engagement, identity, gender, game communities and cultures of production.
- Digital games as simulated worlds, narrative structures, fictional worlds and genres.
- Learning and gaming.
- Games as cultural artifacts.
- Critical and reflexive scope: deconstruction of economical, technological and cultural production of gaming.

Producing digital games. Refers to learning environments that provides players with many of the skills needed in today’s digital cultures. The ability to be more creative in games is increasing, with games that allow players to create and share levels, to customize and personalize characters and levels and to take part in creative collaborative challenges. For example:

- Coding
- Co-produced media
- Modding
- User-generated content

We propose this Ludoliteracy framework, bearing in mind that the Internet and social networking sites have contributed surprisingly to promote the growing social presence of digital games, a phenomenon that needs to be understood in the wider framework of relocation, mobilisation and dematerialization of the technological devices. An example of this trend are the so-called casual games, (reproducible in any mobile device) or games in social networks, phenomena that are gradually widening the number, profile and diversity of video game players.

Today, digital games transcend their traditional role as a part of a specific subculture, to become a genuine driver of a society and digital culture. However, there is a need for a rigorous and inclusive proposal of literacy that connects playful culture, digital competence and citizenship. Rigorous media literacy that defends the need for critical, analytical and productive



competence regarding media, cannot ignore and actively strengthen everything related to digital gaming and the practical ubiquity of digital games in our society.

REFERENCES

- [1] aDeSe (2014). Balance económico de la industria del videojuego en España 2013. Madrid. (<http://goo.gl/8Fr7x9>) (05-05-2014).
- [2] Aguaded, I.L *Convivir con la televisión*. Barcelona: Paidós, 1999.
- [3] Alvares, C. . & al. (2014) ESF Forward Look: Media literacy research and policy in Europe. A review of recent, current and planned activities. Strasbourg: European Science Foundation ESF.
- [4] Anderson, C. A. (2004). An update on the effects of playing violent video games. *Journal of Adolescence*, 27., 113–122. (DOI: <http://dx.doi.org/10.1016/j.adolescence.2003.10.009>).
- [5] Aparici, R. (1997). Educación para los medios. *Voces y cultura*, 11/12, 89-99.
- [6] Aranda, D., Sánchez-Navarro, J. & Martínez-Martínez, S. (2014, en prensa) LUDOLITERACY: Informe sobre las Principales Experiencias de Alfabetización Mediática en videojuegos en Europa. Barcelona: Editorial UOC.
- [7] Aranda, D. & Martínez-Martínez, S. (2013). Ludiliteracy. Media literacy in gaming. En Aranda, D., Creus, A. & Sánchez-Navarro, J. (Eds.). *Educación, medios digitales y cultura de la participación*. (pp. 47-66). Barcelona: Editorial UOC.
- [8] Aranda, D., Sánchez-Navarro, J. & Tubella, I. (2014). *World Internet Project Spain 2013. Informe de resultados*. Barcelona. (<http://hdl.handle.net/10609/31701>) (05-05-2014).
- [9] Aranda, D. & Sánchez-Navarro, J. (2009). *Aprovecha el tiempo y juega*. Barcelona: Editorial UOC.
- [10] Aranda, D. & Sánchez-Navarro, J. (2011). How digital gaming enhances non-formal and informal learning. En Felicia, P. (Ed.), *Handbook of Research on Improving Learning and Motivation Through Educational Games: Multidisciplinary Approaches* (pp.. 395 -412). Londres: Information Science Publishing.
- [11] Asociación Española de Videojuegos, AEVI. (2014). *Anuario de la industria del videojuego*. Madrid: España.
- [12] Buckingham, D. & Burn, A. (2007). Game Literacy in Theory and Practice. *Journal of Educational Multimedia and Hypermedia*, 16 (3), 323-349.
- [13] Burgess, M. C. R. & al. (2011). Playing With Prejudice: The Prevalence and Consequences of Racial Stereotypes in Video Games. *Media Psychology*, 1, 289–31. (DOI: 10.1080/15213269.2011.596467).
- [14] Chappell, D. & al. (2006). EverQuest - It's just a computer game right? An interpretative phenomenological analysis of online gaming addiction. *International Journal of Mental Health and Addiction*, 4, 205-216. (DOI: 10.1007/s11469-006-9028-6).
- [15] Consalvo, M. (2007). *Cheating. Gaining Advantage in Videogames*. Cambridge: MIT Press.
- [16] Dickerman, C., Christensen, C. & Kerl-McClain, S.B. (2008). Big Breasts and Bad Guys: Depictions of Gender and Race in Video Games. *Journal of Creativity in Mental Health*, 3 (1), 20 -29.(DOI: 10.1080/15401380801995076)
- [17] Dovey, J., & Kennedy, H. (2006) *Game cultures: Computer games as new media*. Glasgow: Open Univ. Press.
- [18] EAVI Consortium. (2009). *Study on Assessment Criteria for Media Literacy Levels: Final Report*. Brussels. (<http://goo.gl/SB9o6b>) (05-052014).
- [19] Etxebarria, F. (2011). Videojuegos violentos y agresividad. *Pedagogía social. Revista interuniversitaria*, 18, 31-39.
- [20] Egenfeldt-Nielsen, S. (2011). Beyond Edutainment: Exploring the Educational Potential of Computer Games. Copenhagen: Lulu.com.
- [21] Feike, K. M. & Nicholson, M. (2001). Divided by a Common Language: Formal and Constructivist Approaches to Games. *Global Society*, 15 (1), 7-25. (DOI: 10.1080/13600820124575).
- [22] Frasca, G. (2001) Videogames of the Oppressed: Videogames as a Means for Critical Thinking and Debate. Masters Thesis (Georgia Institute of Technology), (<http://goo.gl/Gok1DI>) (05-05-2014).
- [23] Gatzidis, C., & Poulsen, M. (2010). Understanding the Game: An Examination of Ludoliteracy. 4th European Conference on GamesBased Learning. Copenhagen.
- [24] Gee, J. P. (2004a). Lo que nos enseñan los videojuegos sobre el aprendizaje y el alfabetismo. Málaga: Aljibe.
- [25] Gee, J.P. (2004b). Situated Language and Learning: A Critique of Traditional Schooling. New York: Routledge.
- [26] Gentile, D. A. & Gentile, J. R. (2008). Violent Video Games as Exemplary Teachers: A Conceptual Analysis. *Journal of Youth and Adolescence*, 37 (2), 127-141. (DOI : 10.1007/s10964-007-9206-2).
- [27] Goldstein, J., Buckingham, D. & Brougère, G. (2004). *Toys, Games, and Media*. Mahwah: Lawrence Erlbaum Associates.
- [28] Grossberg, L. (1992). Is There a Fan in the House? : The Affective Sensibility of Fandom. In Lewis, L. (ed.) *The Adoring Audience: Fan Culture and Popular Media*, Londres: Routledge.
- [29] Hills, M. (2002). *Fan cultures*. London: Routledge.
- [30] Huizinga, J. (1994). *Homo Ludens*. Madrid: Alianza.
- [31] Jansz, J. (2005). The Emotional Appeal of Violent Video Games for Adolescent Males. *Communication Theory*, 3, 219-241. (DOI: 10.1111/j.1468-2885.2005.tb00334.x).
- [32] Jenkins, H. (2009). *Confronting the Challenges of Participatory Culture*. Massachusetts: MIT Press.
- [33] Jenkins, H. (2006). Fans, bloggers, and gamers: Exploring participatory culture. New York: New York Univ. Press.
- [34] Jenkins, H. (1992). *Textual poachers: Television fans and participatory culture*. New York: Routledge.
- [35] Lacasa, P. (2011). *Los videojuegos, aprender en mundos reales y virtuales*. Madrid: Morata.
- [36] Mäyrä, F. (2009). Sobre la productividad y los fans de los videojuegos. In Aranda, D. & Sánchez-Navarro, J. (Eds). *Aprovecha el tiempo y juega*. Barcelona: Editorial UOC.
- [37] My Child online foundation & Kennisnet Foundation (2013). *Media education in four EU countries*. (<http://goo.gl/KK20Qk>) (05-05-2014).
- [38] Prensky, M. (2007). *Digital game-based learning*. St. Paul: Paragon House.
- [39] Resolución del Parlamento Europeo, de 12 de marzo de 2009, sobre la protección de los consumidores, en particular de los menores, por lo que se refiere al uso de juegos de vídeo. *Diario Oficial de la Unión Europea*. (<http://goo.gl/vqdOuh>) (05-05-2014)
- [40] Ritterfeld, U., Cody, M. & Vorderer, P. (2009). *Serious Game: Mechanisms and Effects*. New York. Routledge.
- [41] Sánchez-Navarro, J. & Aranda, D. (2010). Un enfoque emergente en la investigación sobre comunicación: Los videojuegos como espacios para lo social. *Anàlisi: Quaderns de comunicació i cultura*, 40, 129-141.
- [42] Sherry, J. (2004). Flow and media enjoyment. *Communication Theory*, 4, 328-347. (DOI: 10.1111/j.1468-2885.2004.tb00318.x).
- [43] Squire, K.D. (2005). Toward a theory of games literacy. *Telemidum*, 52(1-2), 9-15.
- [44] Taylor, T . L. (2006). *Play between worlds: Exploring online game culture*. Cambridge, MA: MIT Press.
- [45] UNESCO (2008). *Teacher Training Curricula for Media and information Literacy*. Report of the International Expert Group Meeting. Paris: International UNESCO. (<http://goo.gl/Nn0Ssv>) (05-05-2014).
- [46] Whitton, N. (2009). Learning and Teaching with Computer Games in Higher Education. In Connolly, T., Stansfield, M. & Boyle, L. (Eds) *Games-Based Learning Advancements for Multi-Sensory Human Computer Interfaces*. Hershey: IGI Global.
- [47] Williamson, B. & Facer, K. (2004) More than Just a Game: the implications for schools of children's computer game communities. *Education*,



Communication & Information, 4,(2/3), 255-270.
(DOI:10.1080/14636310412331304708).

[48] Wirman, H. (2009). Sobre la productividad y los fans de los videojuegos. En Aranda, D. & Sánchez-Navarro, J. (Eds). *Aprovecha el tiempo y juega*. Barcelona: Editorial UOC.

[49] Zagal, J.P. (2010). Ludoliteracy: Defining, Understanding, and

Supporting Games Education. Pittsburgh:ETC Pres.

