The development of media competency in the consumption of video games

José Ignacio Aguaded-Gómez, Mari-Carmen Caldeiro-Pedreira, Maria Amor Pérez-Rodriguez

1 Departamento de Educación, Universidad de Huelva, Spain
2 Universidad de Playa Ancha, Chile

corresponding e-mail: maria.caldeiro@upla.cl
postal address: Campus San Felipe, Benigno Caldera Nº341, San Felipe, Chile

The progressive increase of videogame sales in the world, as well as its omnipresence in the leisure time of the population, is evident. The increased consumption in many sectors of the population, of every type of videogame, is easily verifiable. However, studies show that compulsive consumption does not generate by itself the media autonomy necessary to train this new “homo interneticus” as a true critically-minded consumer and creative producer, as a “prosumer”. The development of this ability, which allows the critical analysis of audiovisual content and active participation, is a great challenge in present society. In this study, we will describe the six dimensions that shape media competency, and review the literature related to educational games that validate their didactic potential. Also, we will establish the need for the “empowerment” of the user so that they gain the ability to autonomously analyze the audiovisual content that influence in the forging of their identity.

Keywords: Media ecosystem, videogames, participation, training, prosumer, media competency, critical thinking autonomy


"Homo interneticus" in the multi-screen society

Audiovisual contents proliferate in the interactive society exponentially, and are transmitted instantly; in the era of the communication revolution, the system of relationships is based on media outlets, which turn themselves into a fundamental instrument for the diffusion of knowledge. Building and contents constitute indissoluble elements in the communication process, contributing to its development, justifying the cognitive and axiological need that favors the emission of reflective judgment. When the massive amount of screens that make up the media ecosystem grows exponentially, the development of autonomous critical thinking skills is necessary.

The media situation requires a critical view that transcends the simple viewing of the late 20th century of the different screens that play a leading role in the communication ecosystem. It was also in the late 20th century when the Z generation developed. This group is composed of digital natives (Prensky, 2001), who, as opposed to the protagonists of the lost generation of the 40’s, know and manage the Internet.

The emergence of the analog forms of communication and the 2.0 crisis leave room for new canvases that require the development of different cultural and social practices. The lightweight technology, also known as the “pocket pens”, transcends the function of the receptor, allowing him to be the medium, channel and message of the communicative process. The advances entail the development of thoughtful and critical thinking that constitute an imminent need. This demand justifies the presence of the “prosumer”
(Tofler, 1980), an active agent, a protagonist of the networked society; his existence requires the education and training that will allow him to turn the risks into opportunities. This last is an essential need for the melding of the presence of analog and digital technology that requires the development of favorable abilities for the controlled and conscious consumption and production.

This process develops in a context where multiple forms of communication, including interrelations, proliferate, leading to the loss of importance of the apocalyptic vision that is motivated by the apologetics of hypertextuality and multimedia. Therefore, teaching and training as forms of development of the media populations’ own abilities (Gozalvez, 2013) is favored. The multiple diffusion channels of information and the different communication tools justify the need to learn about the networks and the development of a civil culture that has been referred to by Reinghold (2011).

Reality justifies a change of perspective in the educational sphere which wholly involves the teaching agents and focuses its interest in the empowerment and the development of critical thinking ability. This ability acquires a determined value especially when the bombardment of audiovisual content generates, in the multi-tasking receptor, an inexcusable need for consumption.

The evolution of the technology has led to a social revolution, from “homo sapiens”, through “homo videns”, referred to by Sartori (1998) to “homo interneticus” (Bosio, 2014). Different modifications are produced, that condition not only the way of thinking and acting, but also the context in which they occur. Virtuality brings with it the abandoning of face-to-face interaction, and leans towards privacy, while the public spaces that are open to relationships broaden further from the plazas or the coffee shops, with users identifying themselves with a “nickname” or an alias that is able to maintain various conversations simultaneously, only one click away. Just as well, virtuality has modified the characteristics of “homo ludens” (Huizinga, 1998) who, by answering to technological needs, has been adapting to the different changes and habits in his audiovisual consumption.

**Digital natives as media consumers in the digital era**

In this context, the image acquires an important relevance and centers the interest on the value of the image that is introduced in a subtle way in the life of the individual. In the middle of the whirlwind of data, there is underlying research that indicates that about 80% of a person’s day is shared with screens, with the value of this information accentuated as we are currently changing our ways or reading and writing (Caballero, 2009). This modification has a repercussion on the different ways of media consumption generated by the networked society, where multiple technological devices co-habit. Among others, the iPad, Smartphones and videogames are a few of the more recent examples that favor “global consumption” (Alonso, 2007). Along the same lines, the Internet possesses a dichotomous character, as it allows the interactions of different subjects that live thousands of kilometers apart, at the same time that it calls for network consumption when the media are erected as an “industry that should be economically profitable” (Vizcarra, 2002).

Videogames imply an evolution of the ordinary games, and are conceived as the digital era’s own expression where they acquire a great relevance to the general public, who are almost exclusively the videogames’ target. The consumers of this type of technology identify themselves, in great length, with the youth, who reach a lesser moral development due to, among other reasons, their young age and low cognitive level. These factors condition the voracious consumption of this type of technology, a fact that is added to the prevailing tendencies of the moment, the impulses and the volatile character that are subtly fed by the producers. The new audiences (Rosique, 2010), who play a key role in the “juvenilization of culture” (Aguilera, 2009) increasingly consume videogames, as certified by Adese (Asociación Española de Distribuidores y Editores de Software de

This increasing consumption coincides with the increased sales in the last few years in Spain, although this growth is contrary to the 7% decrease in 2014 as compared to 2013. This decrease is justified, as can be observed in Figure 1, by the exponential growth experienced in the last few years.

**Figure 1. Videogame sales in Spain (2006-11)**

![Chart showing videogame sales in Spain (2006-11)]

Source: ONTSI. Report on audiovisual contents.

Similar to the previous figures, a slight stagnation can be inferred by the analysis performed by the CAR “centro de alto rendimiento de Accenture, Accenture Institute of High Performance”, when describing the habits and tendencies, a prevailing factor in the “multi-device” society. According to the mentioned research study, “the Spanish users increase their consumption of digital content, and at the same time are active creators”.

**Figure 2. Content accessed by the users**

![Chart showing content accessed by users]

In the previously mentioned study, the results related to the access of contents that are shown in Figure 1 draw our attention. Similar to what is occurring at the global level, the access to digital games, although occupying a high percentage, is found in a lower position, which is justified by their high cost or the lack of interest by the Spanish population for this type of investment.

The current relevance and weight of consumerism become springs on which the need for education rests; reality prescribes the presence of new audiences in wired as well as wireless society (Bauman, 2007). This relevance also corroborates the shaping of an “individual who is an active receptor and who has been developing throughout history” (Caldeiro, 2014). Without a doubt, this individual had to gain the ability to “use and interpret the content of the perceived messages as a function of his own expectation” (Huertas, 2002), which will allow him to choose that which is more convenient for him.

The changing social situation justifies the adaptation of the learning environment in and out of the classroom, a worry that focuses the interest of different collectives and research groups that seek to study the new literacies and “analyze processes related to reception, comprehension and reconstruction of the information” for “the creation of educational spaces where videogames and digital games are present” (Marin, 2012).

**Videogames and competencies**

The unquestionable presence of the Web and videogames in daily life demand an imminent linguistic and technological training of the user. Likewise, an immediate and critical introduction to digital games and videogames is required. Learning to analyze in the moment in which the simulation and the transmission of veracity rule in the iconographic and digital culture is urged. The user has to develop abilities that will empower him to forge his own identity while cohabiting with the formal and non-formal language. Digital literacy is joined by media literacy and the development of competencies that will help to live life in the society of knowledge.

Technological devices and videogames require continual learning that is favorable to the abandoning of digital and technological illiteracy that lead to the development of individuals that have critical thinking and thoughtful attitude, and whose origin can be found in active participation and social interrelationships.

Therefore, literacy acquires an important weight and becomes worrisome at the national and international level, justifying the work of the different teaching agents. Consequently, the acquisition of competencies as referred to, among others, by Ferres (2006) or Marques (2013), become a fundamental priority. Both make allusions to digital literacy, with Ferres (2006) being the first who focused his study on the six dimensions that make up audiovisual competency, from which media literacy is forged from. These and other authors prepare, in the case of videogames, for respect to others, the interrelation and the development of communication, emission and reception of the verdicts derived from games that allow the “recovery of the dialogue and participation” (Gumucio, 2004, pp.7).

Literacy is conceived as the acquisition of abilities that are favorable to the reaching of values that enable life in society, and allow for the development of the individual’s mind. Likewise, it strives for the achievement of the analytical ability that allows for contact and face-to-face and virtual interrelationships.

As the OCDE (1997) indicates, the eight basic competencies that are found in the DeSeCo (2001) report make reference to the knowledge and abilities that the student body has to develop. Besides these, the report highlights those competencies that arise with the support of the information society, which can be related to the generic competencies. Their value is highlighted by the Eurydice (2003) report when alluding to the need of reaching individuals that are able to integrate into the society of information where a teeming quantity of audiovisual content in developed. Said content acquires a very specific weight that is important for the digital society; in the case of the videogames, the
increase in value is due to other factors, to the number of hours that the minors dedicate to the games and their effects.

In a context that is characterized by the hybridization of spaces and virtuality, digital competency, found among the eight basic competencies and learning how to learn competency acquire supreme importance. The first is indispensable for the development of the media ecosystem, while the second has an impact on the value of learning that is derived from contact with videogames; a type of learning that is developed through life. This is a process that is named “lifelong learning”, that which pursues the maturity of the individual, and forges different competencies. This acquisition is linked, in the case of videogames, to cognitive, affective, social, functional and psychomotor processes (Marin, 2012). Also, to these “emergent cultural forms” (Del-Castillo et al., 2012), another set of values can be attributed to these elements, as they allow the development of dimensions that make up media competency, as well as functioning as ways of learning that contribute to the forging of identity.

The multiple formats tie themselves to new consumption habits that implicate the knowledge of languages that are based on multimedia environments and hypertextual systems, where interactivity predominates. Therefore, their inclusion in the minor’s education is necessary, as they form part of their day-to-day; from the academic context, the uncoupling of leisure time and videogames is desirable. A change in their conception that will identify them as a valid teaching tool, as access to information and literacy is sought.

This need derives from the educational potential of videogames, and is one of the fundamental worries of those who try to approximate realities, while at the same time contributing with their effort to decrease the gap between leisure time and learning. The current social and technological reality does not allow the making of distinctions between spaces so that their taxonomy can be established. The irruption of virtuality and the possibility of immediate interconnection favor interrelations and allow instant communication. This communication being used among other media types throughout the history of the videogame in its different shapes; each one of them justify the cultivating of the competencies found in the DeSeco (2001) report, which are also present in modern educational laws from the 90’s until the present time.

The value of the competencies increases as they favor the grasping of the abilities that are sought for the integration of formal, informal and non-formal learning. This last typology underlines the value of videogames that were conceived from time ago as learning machines that allow for the development of basic competencies and the accomplishing of media competency. This last, although not part of the basic eight competencies, allow the reconciliation of apocalyptic and integrated postures, typical of those who place videogames in the informal sphere and leisure space, and those who consider that videogames, although no educational videogames exist, contain a wide pedagogical potential; a position shared by Lacasa (2011), Gee (2004) or Ruiz, Montero and Diaz (2010).

Similarly along educational lines, leisure pedagogy or “edutainment” acquires a determined value (Hogle, 1996) that underlines the cognitive value of the game, which, according to this philosophy, constitutes an important element for education (Revuelta and Esnaola, 2012).

In general, different educational potentials can be identified in videogames, which are linked to the development of multiple intelligences (Antunes, 2005), and are also related to the ubiquity or teaching of everything to everyone and the empowerment of the “multi-tasking” individual (Bosio, 2014). In this context, an indispensable change that is linked to the omnipresence of the Internet; a technology that requires the modification of our brain and that transcends the school walls and the pages of any book, is needed. Digitalization, together with the new formats imply a new social and academic model that, further from the plain consumption of audiovisual content, allows the cultivation of new habits in the audience. This need justifies the imminent proliferation of prosumers, who have been
defined by, among others, Dezuani and Monroy (2012), Sanchez-Carrero and Contreras-Pulido (2012), or García-Ruiz, Ramírez and Rodríguez-Rosell (2014).

**Media competency and its dimensions: The videogame model**

The advance of technology and its imperceptible introduction in day-to-day life constitute indispensable elements in the homes and life of minors and adults. Reality justifies the involvement of teaching agents and the learning institution, which should contribute in the development of personalities that are able to critically evaluate the contents received. In the case of videogames and taking into account that “competencies are developed while playing” (Caldeiro, 2012), their addition in the academic sphere is needed, a demand that is presented by Llorca-Bueno-Fernandez and Diez (2010) when referring to the important social power of this cultural mechanism.

The entire educational community, conscious of the changes that interactivity and digitalization bring, justifies the new literacies that affect not only the technological field, but the linguistic, axiologic or the aesthetic fields. These fields correspond to each of the dimensions that make up audiovisual competency (Ferres, 2006), from which media competency is erected. This last stresses the production and interaction that are directly linked to critical thinking ability and the development of media autonomy (Gozalvez, 2013).

According to Maslow, the social networks and videogames modify the hierarchy of basic needs, generating new ones, which are dependent on the emerging reality. Therefore, the reflection and motivation that can be cultivated through, for example, videogames, is endorsed. Reality demands, especially in the case of digital immigrants and in the classroom, the taking advantage of the emerging devices and their pedagogical potential that identify videogames with media or tools for socio-cultural construction that have to be introduced in learning spaces (Aragon, 2011). The author places these ludic tools as another element of a reality that transmits different visions of the world at the same time that is contributes in shaping the user’s identity.

Therefore, it is indispensable that, especially for the younger set, who are frequent users of the games, become familiarized with forms of communication that are based on the speed and impact of the image. This aspect heightens interest in a world where the school has ceased to be the absolute repository of knowledge to become “the most efficient institution for the teaching of reading and writing, but not the other types of literacy” (Gros, 2002).

The didactic potential of videogames is found not only in the area of sciences, but also letters, and therefore justifies its inclusion in the pedagogic field. Likewise, this potential acquires more value in the moment that having fun and doing homework, or cultivating motor or other skills that favor the searching for information or even the making of decisions and organization are no longer incompatible; all these aspects related to the socio-educational dimension of videogames (Gros, 2010).

As time moves forward, the situation become more complex, and the studies on the dimensions that can be worked on with videogames proliferate and increase their importance. For example, from the six competencies that make up the audiovisual competency: language, technology, production, interaction, values and aesthetics, we can deduce not only the interest and potential of videogames, but their transcendence as well. Besides this, the effects and power for the shaping the intelligence and identity of the user become motives for worry for part of the population. Therefore, and due to the fact that the user needs to experience continuity between the social and academic realities, the inclusion of videogames and different resources and devices in the classroom are fundamental.

The present reality of this burning topic impedes the fulfillment of an exhaustive study, as new research studies that analyze the distinct aspects, and that complement earlier research are continuously emerging. The lack of research on the development of media competency through the use of videogames allows the creation of a study that initiates a
line of analysis that is necessary. This is especially true due to the demand for training and the attaining of a critically-thinking and literate individual, who is able to comprehend the content that he receives and is also able to produce other aesthetically and axiologically correct content.

The continuous emergence of research studies that corroborate the acquisition, through videogames, of the set of abilities and dexterities necessary to successfully perform in digital environments (Marcano, 2008) justifies the analysis of the dimensions that make up media competency and its relation with videogames, taking into account that they use languages and digital tools that are favorable in the forging of digital competencies among the students (Cardenas, 2005). The acquisition of media competency is due, among other factors, to the presence of languages that are based on multimedia environments, that prioritize linguistic learning and the acquisition of said competency. Likewise, the need the game player to read, at least quickly, the instructions, re-enforces the learning of language, this example being used to attribute digital tools as literacy agents.

This literacy requires the development of the technological dimension that allows the grasping of the ability needed to allow the subject to function effectively in the media environment. The simple use of the new technological devices brings with itself technological knowledge and its management, but does not completely train the individual, who has to acquire these abilities incrementally. The technological dimension, as confirmed by studies focused on the analysis of the level of development of media competency by the population (report on the degree of media competency of the Andalusian people, 2010, or Doctoral thesis Caldeiro, 2014), does not reach the thresholds that, at first, can be presupposed to the user. Even taking into account the user’s use and management of the technology, the user does not develop high levels of the technological dimension (Garcia, Ramirez and Rodriguez, 2014). To alleviate this lack, and as verified by the pedagogic value of videogames, we propose their inclusion in the classroom, allowing for the cultivation of the six dimensions that make up media competency.

As for the third competency, reception and interaction, no research studies exist that directly or indirectly analyze it, a situation that endorses the present study, through which we detect challenges and potentials of the inclusion of modern devices in society, and by extension, in the academic world. The growing omnipresence of videogames and interactive games, as well as their undisputed value as communication tools are verified by Cortes et al. (Cortes Manzur and Lacasa, 2014), among others. Nevertheless and despite the analytical-descriptive character of current research, there is a lack of research works that are focused on the design of strategies and methodologies favorable to the insertion of devices in the school context and the empowerment of the user for interacting and producing contents in a critically thoughtful and autonomous way.

In this context, and to comply with the objective described, the reception and interaction dimension acquires a high value, as it allows the converting of leisure time into an opportunity for learning. Even if the game presupposes a type of distraction, its educational potential is not excluded, allowing the user to take advantage of it for educational purposes. This benefit is substantiated when taking into account international research (Prensky, 2001) and other national research, such as that of Montero (2010), which argues for the development of multiple intelligence through the use of games as well as offering clues on how to use them as didactic resources. Along the same lines, Lacasa (2011) validates their value as tools that allow responsible and critically thoughtful participation. Meanwhile ADESE, places the videogames as an interactive continuation of the game that allows sociability, cooperation and the adoption of an active role to the player. Others certify their pedagogic value and the need to empower the population so that they will be able to intervene and adequately value the audiovisual content in order to influence their effects, either the most beneficial –active involvement of the users or effective and motivational learning (Perez-Tornero and Pi, 2014), as well as the not so beneficial.
Meanwhile, the fourth dimension: production and diffusion, focuses the interest on the analysis of the cognitive and emotional effects. This dimension transcends the simple consumption that has been previously mentioned, and focuses on the cross-reading of the explicit and implicit messages that contribute to the training of critical receptors (Águilar, 2007), who are able to act responsibly and with commitment. This aspect has a direct relation with the ideology dimension and the values that have been referred by, among others, Ortega and Robles (2008). For these authors, the videogames make up the personality of the players, contributing to the construction of their value scales at the same time that they can be used for the development of collaborative work. This last task entails respect to others as well as interaction, both face-to-face and virtual. The axiologic dimension in relation to the videogames, has been analyzed from different viewpoints, with the study performed by Del Castillo et al. (2012) being one of the most important. In this study, the authors analyze the repercussion of the videogames in the creation of both group and individual identities. Different authors associate videogames and their use with the choice of virtual or face-to-face presence of the player (Gee, 2008), a choice that is indivisibly linked to participation and the respect for the norms. Ortega (2002) refers to this last statement when analyzing the sixth dimension: the aesthetic of, in this case, videogames. The author relates ethical quality and aesthetics, mainly due to the high seductive power attributed to videogames. The relevance of this dimension is determined by the development of the critical-thinking ability that focuses its interest on the minimum demands of aesthetic quality and the different artistic manifestations. At the same time it focuses the attention to the relationship that is established with responsible and critically-thoughtful consumption, on which the behavior and identity of the prosumer of the 21st century is grounded on.

**Conclusion**

Communication media, denominated the “fifth power”, stop being the absolute carriers of information, a fact that entails the empowerment of the population, which has to become an agent that is able to analyze the relevance of audiovisual contents. At the present time, the ability to access said content and the ability to intervene acquire supreme importance. Likewise, the social and educational dimensions shape the training of the population. Digitalization and the exponential and continual presence of technological devices call for the development of the language and the different dimensions that make up media competency as elements that allow the adaptation to new communicative needs experienced by social beings. Therefore, the transcendence and the urgent development for creativity and cogitate attitude favorable to the detection of stereotypes and negative moral values, which are the transmitted elements, in a specific way through the use of videogames are justified. Therefore, the value of the audiovisual content generated through the more recent technological devices and the transcendence of communication conceived as a consumption good for the natives as well as, to a lesser degree, for the digital immigrants is highlighted. The new habits require new needs starting with the emergent literacies; meaning, the training referred to previously by the Parliament and the European Commission in 2009, which has also engaged national organisms such as the Audiovisual Councils of Catalonia and Andalusia, the Communication Cabinet, which is dependent on the Autonomous University of Barcelona (UAB) or the Andalusian group Comunicar, without forgetting associations such as Comunicación or the Observatory of Audiovisual Content. All of these organisms are making efforts to analyze and evaluate the effects of the audiovisual contents in the different formats, proposing measures that, along the lines of the Recommendations emitted by the European Parliament, contribute to the education and training of the audience, currently known, as was already mentioned, as prosumers.

In this context, education and educators acquire importance, as guardians that have to serve as guides for those who possess inferior cognitive or axiological levels. With respect
to this, the question of “how do we teach to think?” arises. This question is highly relevant when children and adolescents, incited by the constant contact with new devices and screens, due to the exponential growth of media, act differently, motivated by the omnipresence of the screens.

Therefore, the endowment of new types of media and the use of modern devices transcend the existence of efficient strategies that are based on present reality. To this we can add the pressing adoption of responsibilities by the teachers and the socialization agents who do not perform their duties in an academic institution. The need transcends the curriculum and cognitive learning, focusing on axiologic learning, which was previously mentioned, or aesthetics as well. Both dimensions make up the subject’s personality, and are not uniquely nor exclusively acquired in a school institution. Therefore, different sociologists, philosophers and pedagogues place education as a necessity for teaching how to think beyond the environments that have been already conceived for that end.

The inexorable and continual social change requires of a whole transformation based on the consumption of products and audiovisual content as well as the development of media competency, meaning, the ability that allows us to relate face-to-face and virtually; the ability that allows the development of individual, autonomous thinking. In the case of the young, for the sake of achieving the already-described objectives, videogames and their ludic-pedagogic value acquire a special relevance. The relevance and value of its effects are magnified taking into account their teaching functions that have not been planned for them. Notwithstanding, the interest for adding games to the teaching methodology dates back to the Escuela Nueva (New School) (Ramirez, 2012), a pedagogic movement that re-enforced the educational potential of the game, which was understood as a learning tool.

For that matter, and given its transcendence and potential for integrating formal and informal learning, the present study analyzes and describes the dimensions that make up media competency and its relation and identification with videogames, as they possess a marked pedagogic value.

The first of the studied dimensions justifies its value, as the different types of games favor face-to-face and virtual intercultural communication in multiple registers: iconic, graphic and digital. Also, videogames, beyond identifying themselves as products that are consumed individually, favor, thanks to technology, the contact and interrelation among the players. This last relation is directly linked to the dimensions of interrelation and production that have been less studied, as seen during the writing of this work. In the analysis of the dimensions, axiology, values and emotions, which make up critical-thinking ability at the level of content as well as values, acquire importance.

Likewise, the last two dimensions acquire a substantial relevance due to the unavoidable relationship that is established between values, aesthetic and emotions, and the subsequent development of moral autonomy, a characteristic that defines media citizenship (Gozalvez, 2013). Meaning, these are subjects that transcend the consumption of audiovisual and media contents and products in favor of the development of analytical and responsible conducts that allow the emission of critical and thoughtful opinions. The reaching of an “emirec” (Cloutier, 1973) is advocated, that is, active individuals who are not limited to reception, but who develop the interpretative ability that allows them to undermine the pernicious influences of, in this case, videogames.

The didactic potential and the educational value are justified due to the safe environment that the games create, as well as the ability to improve, among other aspects, language and the handling of technology. Likewise they favor mental agility and creativity that are linked to the aesthetic and axiologic dimension that allow for the detection of discriminatory stereotypes and images that obliquely shape the identity of the user.

Ultimately, this research study tries to justify the value of videogames that, along with different communication agents shape the media ecosystem and determine the personality and identity of the consumer. Likewise, the study insists on the videogame’s educational potential and in its pedagogic abilities that are derived from the identification of the six dimensions that make up media competency. The lack of studies on media competency
and videogames confers value to the present research work, and beyond limiting it, it attributes it with a marked potential for being a standard when creating materials for working face-to-face and virtually with the different dimensions that constitute it.

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