Presentation
Gamification, videogames and eSports

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Guest Editors

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We would like to express our gratitude for the overwhelming amount of research work, academic reflections, and future directions submitted for this monograph. Due to space constraints, we had to select the papers with the greatest scientific impact, as determined by external reviewers, from over 40 submissions. The high quality of the manuscripts deserves special mention, and we are grateful for the trust and effort of the authors. This monograph will showcase the selected works and their contribution to the academic field. Recent research suggests that video games, often criticized for their supposed link to addiction and violence, do not directly correlate with aggressive behavior. This paper examines

how strategically incorporating video games into educational settings can serve as a powerful tool to facilitate learning and promote skills such as problem-solving, critical thinking, and cooperation.

Video games, society, and verdicts

Video games have long been established as an integral part of popular culture. However, it contrasts the widespread social alarm and concern of many families with research findings that show a lack of direct correlation between video games and aggressive behaviours (Khün et al., 2019; Przybylski and Weinstein, 2019; Mathur and VanderWeele, 2019). Despite their popularity and recognition as the main entertainment industry in Spain, video games are often misinterpreted and stigmatized by society and the media. An issue that may have to do with what has been called by some "digital denialism" (Sánchez Vera and Adell, 2023).

This distance between established academic knowledge and social awareness makes us think of the words of Aguilera and Méndiz (2005, p.2):

> To any dispassionate and rigorous observer, it must undoubtedly be curious - if not paradoxical - to contemplate the notable distance that in many of our societies exists between saying and doing in relation to different manifestations of popular culture - among others, made up of video games. Well, even though these manifestations represent a solid base on which various cultural practices that the vast majority of the population maintain on a daily basis are based, a good part of the scientific community, public authorities and members of other groups that show greater or lesser social leadership sustains a discourse that rejects these phenomena – when it does not disqualify them globally.

As we see, the debate about whether video games are good or bad is complex and cannot be resolved with a simple answer. However, technology is not neutral (all the more reason to educate about its use); like any other tool, video games' impact depends on how we use them.

The example of chess is revealing: if a boy or girl spends six hours playing chess, his or her family might feel proud and share it with others. However, if it were six hours playing video games, your parents would probably find it necessary to consult a psychologist. This

contrast highlights how the perception of what is good or bad, healthy or harmful, varies widely depending on the cultural perspective towards the activity in question. Both activities, playing chess or video games, can be considered equally healthy or problematic depending on how the social environment views them.

Another factor to consider is the shift in family dynamics and the challenges of balancing work and personal life. This has led to video games often becoming a solitary activity for children, with parents using this time for other tasks. It's crucial for parents to recognize the value of participating in and supervising their children's video game activities, just as they would with traditional games. While the industry has made efforts to promote video games as a family activity, this perspective is not yet widespread, perhaps awaiting the next generation of parents who have grown up with video games.

Video games and education

The negative perception and prejudices about video games in society tend to ignore scientific evidence that does not demonize them but rather considers them as a modern evolution of traditional games driven by technological advancement. However, the central point we want to reach with this exhibition is related to formal education.

The experience that a young person has when playing video games clashes head-on with the structure and purpose of school classes, which in general can be described as colourless and unstimulating environments (Fernández Navas, 2015). The usefulness of the knowledge taught in these classrooms frequently does not transcend beyond what Pérez Gómez (2000) calls academic culture, putting them at a disadvantage compared to the attractive and vibrant world that video games offer.

Moreover, therefore, the closer we bring the classroom experience to this traditional way of living it where, as Santos Guerra (2001) explains to us, knowledge rarely has any use beyond serving to progress in school, what he calls "exchange value", the greater will be the shock of our students with the school reality and the more attractive will be the digital world in which they live outside of it. The ideal would be to promote the use of the value of knowledge as proposed from the vision of the curriculum that Wrigley (2017) calls Critical Realism.

This means that the more we turn classes into an environment without stimuli, without challenges, where knowledge is rarely useful beyond continuing to progress in school, the easier it will be for our boys and girls to feel attracted and dedicate more time to playing video games.

This has to do with what Aguilera and Méndiz (2005, pp. 3-4) propose:

> In relation to the discourses that organize the meanings socially attributed to these technologies, several questions could still be raised. Among others, the public sphere of our societies does not pay due attention to some of the very important changes that young people go through and move through in their daily lives. Thus, as a consequence of this public inattention and abandonment, these types of experiences are rather confined to the private level, in which various industries linked to youth consumption have been able to detect many of the expectations and demands felt by consumers. Young people, as well as giving them a certain meaning - providing these segments of the population with consistent and coherent symbolic universes, supported above all by what can be called popular culture. Likewise, these discourses – which obey different logics – are spread throughout society as a whole and are assumed, to one extent or another, by its different members, among others, by its scientists –also participants in the "spirit of their time", as Edgar Morin would say-, who guide their work based on certain axiological, theoretical, and methodological assumptions.

Given these circumstances, we believe it is crucial to underscore the key factors that contribute to the negative view of video games in society, within many families, and even in educational institutions. This understanding is vital for initiating a shift in the perception of video games and their potential in education.

In the educational world, the idea predominates that learning involves reproducing information in order to memorize it. Schoolwork is fundamentally aimed at this: it focuses on students absorbing a large amount of content and then reciting it in a test.

This conception of education makes it difficult to consider video games as powerful tools for building knowledge since they do not follow a structured format of information, reproduction and verification of the fidelity of the reproduction of the initial information. Thus, video games tend to be seen more as forms of entertainment than as

a means for learning and education (Quesada Bernaus and Tejedor Calvo, 2016).

Secondly, the interpretation of autonomy within the school environment takes a rather specific form. Although educational curricula and laws often emphasize the importance of autonomy in various modalities as a central element of education, the reality in classrooms frequently contradicts this principle. Generally, all students are expected to perform the same activities simultaneously and as uniformly as possible. It is rarely seen favourably that students engage in different tasks or learn at different rates or in different ways. The norm is that everyone follows the same educational itinerary in unison (Schmenk, 2010).

This situation causes video games to generate a perception of a lack of control over learning since each player can make decisions, follow paths and execute actions that completely differ from those of others.

A third factor that could be shaping the perception of video games in the educational field is what is known as school logic. According to Pérez Gómez (2000), this is related to "institutional culture", that is, the set of norms, meanings and procedures that have been developed and established within educational institutions over time. The prevalence of this school logic has an adverse effect in that any new tool or strategy introduced in the educational system, no matter how innovative, tends to be absorbed and adapted to existing practices and methodologies instead of causing a significant change in how knowledge is accessed and understood.

Finally, there is what we could call the generational problem. Most adults today, including family members and teachers, grew up in a time when video games were not common, causing many to view them as something strange and unknown. This lack of familiarity with video games as part of the culture (Aguilera and Méndiz, 2005) leads to a misunderstanding of the phenomenon, generating fear and social concern. For teachers, this generation gap can make it difficult to understand the potential educational applications of video games. This situation contributes to the media, both traditional and digital, finding a lucrative niche in promoting news that perpetuates these prejudices, which reinforces misinformation and widens the gap between public perception and the evidence presented by research and academic studies on the videogames.

About the monograph

Free or spontaneous play is essential in early childhood education, allowing children to build knowledge through exploration and enjoyment. This type of game, which encourages cognitive, social and emotional development, should be a regular tool in teaching and not just a post-activity reward. Paniagua and Palacios (2005) highlight that play transforms with age, becoming more complex and collective, a crucial aspect for educators to maximize their educational potential. Vygotsky (2009) emphasizes that the game must retain its spontaneous and free character, this being a natural space where learning is built.

Vygotsky's (2009) theory suggests that play is a zone of proximal development where children are able to perform tasks beyond their ability when provided with appropriate assistance. This is reflected in how spontaneous games can foster essential social and cognitive skills without a formal structure. In this context, play is not only seen as an opportunity for direct learning but also as a tool for developing interpersonal and problem-solving skills that are crucial in the later stages of educational development.

Regarding Game-Based Learning (GBL), this bifurcates into the use of commercial games for teaching and the design of specific games to achieve educational objectives. The use of games not initially designed for educational purposes but adapted to teach certain concepts is an approach that can be considered a behavioural learning approach (Institute of Play, 2007). In contrast, the design of specific games for education allows educators to focus on particular learning objectives, creating educational experiences that directly integrate the content to be taught (Begg, Dewhurst, & Macleod, 2005).

In this monograph, we will find this approach in some articles. Thus, the article by Santamaría Urbieta et al., "Clue strategies in educational escape rooms: A process mining approach", examines how clues in escape rooms can be designed to optimize learning. Castañeda (Id.100713) explores the pedagogical co-creation of games for data literacy, while Bueno-Baquero et al. (Id.100691) discuss gamified approaches to computational thinking in teacher education, illustrating how game design can be applied in specific educational contexts in the article "Gamified approaches to computational thinking in teacher education."

Serious Games, specifically designed to educate about particular skills or concepts, are useful for effective learning and can be interactive and practical, as seen in games for learning languages or specific skills (Calvo-Ferrer & Belda-Medina, 2015). Casañ Pitarch, in his article "The Engineer: Improving Technical Engineering Vocabulary Mastery in English Among Undergraduate Students Through the Use of a Serious Video Game," illustrates the use of Serious Games in higher education for learning technical vocabulary.

The adoption of gamification in education, as described in the work of authors such as Kapp (2012) and Marczewski (2013), has transformed the way we understand student motivation and engagement. Applying game elements such as point systems, medals, and levels in the classroom can increase extrinsic motivation. However, these mechanics must be integrated in a way that also promotes intrinsic motivation. This is achieved by ensuring that game elements are intrinsically linked to educational objectives and that they encourage long-term engagement beyond immediate rewards.

Gamification, which transfers elements of game design to the educational field, seeks to motivate students and improve their participation through points, levels and medals systems. Kapp (2012), Jo Kim (2012) and Marczewski (2013) discuss how these elements can make learning more engaging and motivating. This approach is analyzed in the article by Pérez Granados et al. on "Gamification in the educational field: challenges, potential and perspectives for its implementation" as well as in the analysis by Navarro-Mateos et al. on the "Analysis of the teaching role in a gamification proposal in the teaching master's degree" (Id. 99871). These discussions underscore the promising benefits of gamification in education, instilling optimism and hope for its potential.

In addition, other articles in the monograph, such as Sierra-Daza et al.'s "Video games and learning in higher education: a systematic review" and Gallardo Pérez et al.'s "Video games: educational implications in Physical Education", discuss the benefits of video games in health and dyslexia rehabilitation, respectively, highlighting their potential in various educational areas.

The integration of playful elements in education can facilitate deeper and more meaningful learning. Educators must maintain a delicate balance between educational objectives and student autonomy, avoiding overstructuring that can limit the effectiveness of these playful

methodologies (Pérez Gómez, 2000; 1991). This holistic approach to incorporating games into learning reflects the need to adapt educational practices to the changing needs and capabilities of students, ensuring that learning is relevant, interactive and motivating.

In summary, while gaming as an educational tool presents numerous benefits, its effective implementation requires a deep understanding of learning theories, as well as careful planning and adaptation according to specific student needs and curricular objectives. The evolution of play in educational contexts continues to be a fertile field for research and pedagogical practice, offering new opportunities to enrich and transform education in a significant and lasting way.

Bibliographic references

Begg, M., Dewhurst, D., & Macleod, H. (2005). Game-Informed Learning: Applying Computer Game Processes to Higher Education. *Innovate: Journal of Online Education, 1*(6). https://www.learntechlib.org/p/107268/

Calvo-Ferrer, J. R., & Belda-Medina, J. R. (2015). Análisis de la satisfacción del alumnado de L2 con respecto a la adquisición de terminología especializada por medio de videojuegos: Estudio de caso. *Porta Linguarum, 24*, 179-190. http://digibug.ugr.es/handle/10481/53869

De Aguilera, M., & Méndiz, A. (2005): "Un balance de la investigación sobre videojuegos: análisis de efectos y valoración de su capacidad educativa". *Texto abierto*, 6, 9-52.

Fernández Navas, M. (2015). *Internet, organización en red y educ@ción: estudio de un caso de buenas prácticas en enseñanza superior*. Tesis Doctoral. Universidad de Málaga.

Institute of Play. (2007). *An introduction to games and learning: An Institute of Play reader.*

Jo Kim, A. (2012). Social engagement verbs. *Amy Jo Kim*. http://amyjokim.com/2012/09/19/social-engagement-whos-playing-how-do-they-like-to-engage/

Kapp, K. M. (2012). *The gamification of learning and instruction: Game-based methods and strategies for training and education*. John Wiley & Sons.

Kühn, S., Kugler, D., Schmalen, K. et al. (2019). Does playing violent video games cause aggression? A longitudinal intervention study. *Mol Psychiatry, 24*, 1220–1234. https://doi.org/10.1038/s41380-018-0031-7

Marczewski, E. (2013). *Gamified UK Blog*. http://www.gamified.co.uk/

Mathur, M. B., & VanderWeele, T. J. (2019). Finding Common Ground in Meta-Analysis "Wars" on Violent Video Games. *Perspectives on Psychological Science*, *14*(4), 705–708. https://doi.org/10.1177/1745691619850104

Paniagua, G., & Palacios, J. (2005). *Educación infantil: Respuesta educativa a la diversidad*. Alianza Editorial.

Pérez Gómez, Á. (1991). Cultura escolar y aprendizaje relevante. *Educación y sociedad, 8*, 59-72. Recuperado de: https://issuu.com/enguita-eys/docs/educacion-y-sociedad-08

Pérez Gómez, Á. (2000). *La cultura escolar en la sociedad neolioberal*. Morata.

Przybylski A. K., & Weinstein N. (2019). Violent video game engagement is not associated with adolescents' aggressive behaviour: evidence from a registered report. *R. Soc. open sci*, *6*, 171474. https://doi.org/10.1098/rsos.171474

Quesada Bernaus, A., & Tejedor Calvo, S. (2016). Aplicaciones educativas de los videojuegos: El caso de World of Warcraft. *Pixel-Bit. Revista de Medios y Educación*, *48*, 187-196. https://doi.org/10.12795/pixelbit.2016.i48.12

Sánchez Vera, M. & Adell, J. (2023). El negacionismo digital. *El Diario de la Educación*. Recuperado de: https://eldiariodelaeducacion.com/2023/07/24/el-negacionismo-digital/

Santos Guerra, M. Á. (2001). Dime cómo evalúas (en la universidad) y te diré qué tipo de profesional (y de persona) eres. *Tendencias pedagógicas*, *6*, 89-100.

Schmenk, B. (2010). Bildungsphilosophischer Idealismus, erfahrungsgesättigte Praxisorientierung, didaktischer Hiphop? Eine kleine Geschichte der Lernerautonomie. *Profil, 2*, 11-26.

Vigotsky, L. (2009). *El desarrollo de los procesos psicológicos superiores* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.; 3a ed.). Crítica.

Wrigley, T. (2017). 'Knowledge', curriculum and social justice, *The Curriculum Journal*, *29*(1), 1-21. https://doi.org/10.1080/09585176.2017.1370381