Editorial

Editorial, Vol. 12, No. 1

Francesco Bellotti[1]

[1]*Università degli Studi di Genova, Genova, Italia*
francesco.bellotti@unige.it

This issue opens the twelfth volume of the IJSG. I cannot start this new year activity without remembering professor Alessandro De Gloria, founder and first editor in chief of the journal [1], who passed away on march 20th two years ago. This issue features six regular papers, that are shortly introduced in the following.

"Serious Games to Improve Privacy and Security Knowledge for Professionals: a Systematic Literature Review", by Moumouh et al. [2], presents a systematic literature review (SLR) guided by nine research questions: the publication trends, environments, intellectual property, game genres, mechanics, player profiles, and the effectiveness of SGs in improving employees' cybersecurity knowledge. The findings indicate that while SGs have potential in improving security awareness, most of the identified games are in early development and testing stages, often involving small participant groups.

"Influence of gamification on skill-based training of surgical residents", by Topalli et al. [3], aims at better understanding the effect of motivation gained through gamification on simulation-based surgical training environments for novice and intermediate surgical residents' performances. According to the authors, gamification positively improved novice surgical residents' performances under both hand conditions. However, surprisingly, in some situations, results indicated lower performance by the intermediates compared to the novices.

"Relationship Investigation between Time Investment and Language Learning Based on Digital Games", by Habeb et al. [4], attempts to determine if there is any correlation between the amount of time spent on digital games (non-instructional games) and second language development. The results show that there is no correlation between time invested in digital games and language learning. Findings also reveal that Technology Acceptance Model (TAM) factors can be positively affected by language skill development through the use of digital games in learning.

"Gamification in Physics Education: Play Your Way to Better Learning", by Richter and Kickmeier-Rust [5], explores the impact of gamification on student engagement, motivation, and learning outcomes in physics education, emphasizing structural performance modeling through Knowledge Space Theory (KST). Results indicate that gamification significantly

increased engagement metrics and positively influenced motivation, particularly when experienced before the non-gamified condition.

"From Play to Prediction: Assessing Depression and Anxiety in Players Behavior with Machine Learning Models", by Elyasi et al. [6], explores the potential of utilizing machine learning for continuous, unobtrusive monitoring of mental well-being through the analysis of gameplay log data in a multi-genre game. According to the authors, the findings highlight the potential of using game-based behavioral data as a potential indicator of mental health status.

"Exploring Educational Exergames in Well-being Education: A Study in a Finnish Primary School", by Sinnemäki et al. [7], focuses on assessing student preferences in exergames, particularly examining variables such as game selection, difficulty level, and collaborative mode. The authors analyze the interaction between game types and difficulty levels, elucidating the connection between gaming challenges and student choices. Moreover, examining play duration underscores how game genres significantly impact gameplay duration, emphasizing the need for varying cognitive and physical challenges in exergame design.

References

[1] F. Bellotti, J. Baalsrud Hauge, M. Gentile, J. Jeuring, I. Marfisi Schottman, M. Ninaus, R. Veltkamp, V. Wanick, R. Berta, "Alessandro De Gloria: 1955 - 2023", *International Journal of Serious Games*, vol. 10, no. 1, March 2023, doi:10.17083/ijsg.v10i1.612

[2] C. Moumouh, J. A. Garcia-Berna, M. Y. Chkouri, J. L. Fernandez-Aleman, "Serious Games to Improve Privacy and Security Knowledge for Professionals: a Systematic Literature Review," *International Journal of Serious Games*, vol. 12, no. 1, pp. 3-24, 2025, doi:10.17083/ijsg.v12i1.825

[3] D. Topalli, G. Tokdemir and N. E. Cagiltay, "Influence of gamification on skill-based training of surgical residents," *International Journal of Serious Games*, vol. 12, no. 1, pp. 25-36, 2025, doi:10.17083/ijsg.v12i1.833

[4] L. Habeb Al-Obaydi, M. Pikhart, R. M. Tawafak, and B. Klimova, "Relationship Investigation between Time Investment and Language Learning Based on Digital Games," *International Journal of Serious Games*, vol. 12, no. 1, pp. 39-58, 2025, doi:10.17083/ijsg.v12i1.845

[5] K. Richter and M. Kickmeier-Rust, "Gamification in Physics Education: Play Your Way to Better Learning," *International Journal of Serious Games*, vol. 12, no. 1, pp. 59-81, 2025, doi: 10.17083/ijsg.v12i1.858

[6] S. Elyasi, A. VarastehNezhad, and F. Taghiyareh, "From Play to Prediction: Assessing Depression and Anxiety in Players Behavior with Machine Learning Models," *International Journal of Serious Games*, vol. 12, no. 1, pp. 83-102, 2025, doi:10.17083/ijsg.v12i1.897

[7] J. Sinnemäki, F. M. Abrori, T. Prodromou, Z. Lavicza, K. Fenyvesi, D. H. Jarvis, "Exploring Educational Exergames in Well-being Education: A Study in a Finnish Primary School," *International Journal of Serious Games*, vol. 12, no. 1, pp. 103-120, 2024, doi:10.17083/ijsg.v12i1.869