



Editorial

Editorial, Vol. 11, No. 1

Francesco Bellotti¹

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

DOI: 10.17083/ijsg.v11i1.752

This issue opens the eleventh volume of the IJSG. It proposes five articles dealing a variety of topics such as role playing and collaboration, promotion of the cultural heritage, probabilistic reasoning, a catalogue devoted to search for educational serious games. Here some more detail follows on each one of them.

“Videogames and open feedback systems to enhance probabilistic reasoning and engagement”, by Velasco-Hernández et al. [1], aims to evaluate a pedagogical strategy for teaching probabilistic reasoning skills and overcoming the widespread misconception that random events are solely based on “luck”. It investigates the relationship between probabilistic reasoning, feedback types, and engagement levels across four sessions of a digital game based educational practice employing open-ended feedback systems. Results indicate a dynamic nature of engagement and probabilistic reasoning, with significant correlations observed between open-ended feedback and probabilistic reasoning. While a correlation between engagement and probabilistic reasoning was observed in a single session, no consistent correlation was found for the entire study. These findings offer implications for teaching strategies and the development of digital game based learning (DGBL) sequences in secondary education, underscoring the significance of teacher-student interactions and open feedback systems.

“Role-Playing in Teacher Education with InCoLearn and its Qualitative Usability”, by Knorr and Zinn [2], introduces InCoLearn, a multiplayer online role-playing game (RPG) developed for student teachers, with non-linear storytelling through individual quests. A qualitative and quantitative usability study is conducted.

“JEN-Planet: an Automatically Updating Serious Game Catalogue Designed with and for Teachers”, by Morie et al. [3], proposes JEN-Planet, a catalogue designed to help teachers find educational SGs. The authors present a questionnaire-based comparative study with fifty teachers on its usability, relevance, and utility, considering two other major catalogues. Reported results show that the JEN-Planet catalogue better meets teachers' needs.

“Design of Virtual Reality Based Game for Dual Enhancement of City Monuments and Brand Image”, by Aydi and Elluch [4], presents a framework for the design of a virtual reality-

based game; offering features, mechanisms, and 3D models that facilitate the development of interactive scenes, which reveal of the city's historic monuments reality. The project intends to achieve a twofold purpose related to the Tunisian context: discovering the popular "Sfax City" with historical and patrimonial monumental heritage, while promoting the local industry creation. The authors show that the game experience is felt original, enjoyable, and appealing for the user's target group.

"Gamification of Cybersecurity Awareness for Non-IT Professionals: A Systematic Literature Review", by Gwenhure and Rahayu [5], examines five papers in the area, confirming short-term effectiveness and indicating that the incorporation of game elements results in increased knowledge, improved engagement, and positive behavior changes aligned with specific cybersecurity awareness learning goals. The review also identifies recurring gaps in evaluating individual game elements and customizing gamification strategies for non-IT professionals. Highlighting a critical gap in understanding long-term effectiveness, the authors argue for further empirical studies to consider habituation effects, emphasizing the need for a nuanced understanding of gamification's impact on cybersecurity awareness over an extended period.

"BatSight: A Navigation Game to Map Environmental Information into Audio Cues", by Poudratchi et al. [6], propose an audio game in which blindfolded players move through a physical maze with the help of audio cues. To realize this game, a sonar headset is designed and built based on ultrasonic sensors, which maps the external environment features into musical sounds. A user study was conducted to evaluate the effect of using different sound mapping techniques on navigation performance and playing experience in the game proposed in this paper. The results show that producing musical sound can lead to better navigation performance, game experience, and immersion in players.

References

- [1] A. F. Velasco-Hernández, D. S. Baldeón-Padilla and A. A. Navarro-Newball, "Videogames and open feedback systems to enhance probabilistic reasoning and engagement," *International Journal of Serious Games*, vol. 11, no. 1, pp. 3-24, 2024, doi:10.17083/ijsg.v11i1.656
- [2] C. Knorr and B. Zinn, "Role-Playing in Teacher Education with InCoLearn and its Qualitative Usability," *International Journal of Serious Games*, vol. 11, no. 1, pp. 25-44, 2024, doi:10.17083/ijsg.v11i1.681
- [3] M. W. Morie, I. Marfisi-Schottman, L. Bamba, "JEN-Planet: an Automatically Updating Serious Game Catalogue Designed with and for Teachers," *International Journal of Serious Games*, vol. 11, no. 1, pp. 44-62, 2024, doi: 10.17083/ijsg.v11i1.681
- [4] Y. Aydi, and M. Ellouch, " Design of Virtual Reality Based Game for Dual Enhancement of City Monuments and Brand Image," *International Journal of Serious Games*, vol. 11, no. 1, pp. 63-82, 2024, doi: 10.17083/ijsg.v11i1.652
- [5] A. K. Gwenhure, and F. S. Rahayu, "Gamification of Cybersecurity Awareness for Non-IT Professionals: A Systematic Literature Review," *International Journal of Serious Games*, vol. 11, no. 1, pp. 83-99, 2024, doi:10.17083/ijsg.v11i1.719
- [6] S. Poudratchi, Y. A. Sekhvat, M. R. Azadehfar, and S. Roohi, "BatSight: A Navigation Game to Map Environmental Information into Audio Cues," *International Journal of Serious Games*, vol. 11, no. 1, pp. 101-99, 2024, doi:10.17083/ijsg.v11i1.718