Editorial

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I am very proud and pleased to introduce this issue, which closes the ninth year of the International Journal of Serious Games. This edition features six papers, that I briefly present in this editorial.

Just these days, the 11th edition of GaLA Conf is taking place, organized by Kristian Kiili, of the University of Tampere, and his team. I am particularly happy that our community can meet again in person. As the previous years, the best papers from the conference will be invited to appear in a special issue in our journal.

With the end of the year, I take the opportunity to thank all the authors, reviewers and editorial members, who have contributed to another great volume of the IJSG. Next is the tenth.

"Examining Students' Behavior in a Digital Simulation Game for Nurse Training", by Novoselteva et al. [1], is devoted to the analysis of students' behavior in the CLONE simulation game, which targets work scheduling, situation awareness, and decision-making. The findings show that such indicators as time spent on planning schedule, time spent on inspecting additional information, and intensity of delegation activity are significantly higher for successful games than for lost ones. The sequences analysis and clustering have revealed students' prevailing in-game strategies, which mostly consist of inspection, reading medical records, delegation, and scheduling. Outlier detection has disclosed the game sessions with uncertain strategies and unstructured scheduling.

"Attention and Motor skill improvements in Mild Cognitive Impairment patients using COSMA Application", by Christogianni et al. [2], presents a two-arm study with patients with mild cognitive impairment (MCI) using for 28 days COSMA games, a brain stimulation gaming platform. The authors measured reaction times during neuropsychological assessment with the Cambridge Neuropsychological Test Automated Battery and the COSMA games. Overall, the outcomes showed evidence that motor skill practice and learning retention are possible in people with MCI and that these skills are still able to improve with the regular practice of the COSMA games.

"ISPO: A Serious Game to train the Interview Skills of Police Officers", by Guimarães et al. [3], presents a game aimed at training police officers in communication competencies related to the interview of victims, witnesses, and suspects. In order to evaluate the training effectiveness of the serious game, a study was conducted with 194 participants, hinting at the value of the game, particularly for inexperienced users.

"Design Principles for Serious Games Authoring Tools", by Laurent et al. [4], defines a set of design principles for the development of authoring tools. The authors carried out tests developing twelve serious games, overcoming the dilemma between the power and usability. Results. In fact, show that the tool enabled the development of a wide variety of serious games by teams with heterogeneous computer skills.

"A Metric Instrument for the Games with Cultural Heritage", by Liu et al. [5], proposes a unique conceptual framework for the analysis of video game content including four elements of cultural heritage (arts and artefacts, environment, people, and history) and five



elements of game components (gameplay, narrative, acting, art/design, and music/sound). Experiments showed that the proposed metrics and items were able to demonstrate significant amounts of heritage content present in the tested games, much more than previous research has credited and pointed out. The authors argue that commercial games have untapped advantages for cultural heritage preservation which are illustrated in depth through the outlined tools.

"Understanding students' engagement with a Serious Game to learn English: A sociocultural perspective", by Paula Julie Aguilar-Cruz [6], describes the results of a research study that analyzed, from a sociocultural perspective, the incorporation of a Serious Game in a classroom setting with 47 high school students who live in vulnerable conditions in the Amazonian region of Colombia. A revised version of the Motivation Attitude Knowledge Engagement (MAKE) survey was implemented to inquire students' engagement. Game learning analytics (GLA) from a teachers' dashboard was collected to track students' achievements and progress during gameplay. Data was analyzed, triangulated, and interpreted through the lenses of the Reflective Play Activity Model (RPAM). The main findings reveal that (1) when students developed intrinsic play, their cognitive, emotional, and behavioral engagement was low, but when they developed extrinsic play, their engagement increased, and (2) GLA serves to predict students' engagement with a SG in marginalized settings. Additionally, the study refines the RPAM by deepening how this model can occur in face-to-face settings with students who, due to their sociocultural background, do not have access to online environments.

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