Editorial

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This issue opens the eighth year of the International Journal of Serious Games. It features five regular papers that I briefly introduce in the following.

Before, I would like to inform the readers that the 10th edition of GaLA Conf will be held in La Spezia, Italy, organized by CMRE, and Francesca De Rosa will be the general chair. The IJSG will host a special issue with the selected best papers of the conference, as every year. More information and the call for paper on the website: https://conf.seriousgamessociety.org.

Enjoy this 29th issue of the International Journal of Serious Games!

"*Assessment Measures in Game-based Learning Research: A Systematic Review*", by Gris and Bengston [1], conducted a systematic review of empirical studies in ERIC, IEEE, Springer, and Web of Science databases to answer how learning, engagement, and usability of games are evaluated in game based learning (GBL) research. The authors have found a prevalence of learning assessments over engagement and usability assessments. Learning is mainly evaluated by direct measures, while indirect measures mostly assess engagement and usability. According to the authors, the use of indirect measures and instruments without psychometric qualities compromises the strength of the evidence for the effectiveness of game-based learning.

"*Comparing Bayesian Statistics and Frequentist Statistics in Serious Games Research*", by Wim Westera [2], presents three empirical studies on the effectiveness of serious games for learning and motivation, while it compares the results arising from Frequentist (classical) Statistics with those from Bayesian Statistics. Overall, the games are found to have clear positive effects on learning and motivation, be it that the results from Bayesian Statistics are more strict and more informative, and possess several conceptual advantages. Accordingly, the paper calls for more emphasis on Bayesian Statistics in serious games research and beyond, as to reduce the present domination by the Frequentist Paradigm

"*The Effects of playing the COSMA Cognitive Games in Dementia*", by Bojan et al. [3], presents the COSMA software and a pilot study to evaluate its impact on the emotions of people in the spectrum of dementia. The software was designed as a 'brain-stimulating' software for use by people with cognitive impairment i.e., mild cognitive impairment (MCI) and early dementia. The findings demonstrated a small, but significant increase in positive emotions and decrease in negative emotions.

"*CySecEscape 2.0—A Virtual Escape Room To Raise Cybersecurity Awareness*", by Loeffler et al. [4], elaborates the transformation of a physical escape room game into a virtual learning experience. The research proposes the design of the developed artifact—a virtual prototype of the escape room game addressing the cybersecurity challenges of SMEs. For the evaluation of the prototype, empirical data was collected in qualitative and quantitative form. As main conclusions, the authors observe that a physical escape room can be transformed into a virtual setting with little means without sacrificing player immersion, with some limitations.

"*A Game-Based Online Tool to Measure Cognitive Functions in Students",* by Valeska Berg [5], deals with the challenges related to the introduction of game elements to traditional cognitive tasks and training. The presented research aims to improve cognitive assessment with a new game-based assessment app relying on established cognitive theories,

and subsequently validated through iterative testing in real world settings. The authors argue that the knowledge gained from the iterative process of designing a valid cognitive function app can inform other researchers who are aiming to develop cognitive assessment tools in an educational context.

References

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