Introduction to the Special Issue on GaLA Conf 2021

Francesca De Rosa[1], Jannicke Baalsrud Hauge[2], Pierpaolo Dondio[3], Iza Marfisi-Schottman[4], Margarida Romero[5], Francesco Bellotti[6]

[1] *Center for Advanced Pathogen Threat and Response Simulation, USA,* derosa@captrs.org
[2] *KTH Royal Institute of Technology in Stockholm, Sweden,* jmbh@kth.se
[3] *School of Computer Science, TU Dublin, Ireland,* pierpaolo.dondio@TUDublin.ie
[4] *Université du Mans, France,* iza.marfisi@univ-lemans.fr
[5] *Université Côte d'Azur, France,* margarida.romero@unice.fr
[6] *University of Genoa, Italy,* franz@elios.unige.it

This special issue of the International Journal of Serious Games is dedicated to the selected best papers of the 2021 edition of the GALA conference. This edition was organized by Francesca De Rosa and her team at NATO Centre for Maritime Research and Experimentation (CMRE), La Spezia, Italy. Because of the Covid-19 pandemic, it was held online, for the second year.

The three papers published in this special issue were first selected for a content extension, so to make them suitable as journal papers, then underwent the regular IJSG peer-review process, which, on the other hand, discarded other three selected manuscripts.

Here is a short introduction to the accepted papers that you will find in the GALA Conf 2021 special issue of the IJSG.

"*Toward a Digital Companion to Monitor a Mixed Reality Game*", by Bonnat and Sanchez [1], deals with playing analytics and the design of a digital companion to help a game master to orchestrate Geome, a mixed-reality game dedicated to museum school visits. The prototype is the result of a co-design process between researchers, practitioners, and computer scientists. This work allowed the authors to define the interactions established during the use of the game that should be traced for the game master and test the prototype in class. Results show that the players play the game as intended using most of the features, but the game master makes little use of his dashboard and doesn't interact with players through the dedicated interface.

"Exploring and Evaluating Different Game Mechanics for Anti-Phishing Learning Games", by Roepke et al. [2], presents the design and evaluation of two new learning games targeted at end-users who do not necessarily have previous knowledge of IT security. The first game implements extended classification mechanics to better assess players' decision processes, while the second game implements different mechanics, asking players to combine URL parts when creating their own phishing URLs. In a case study with 133 participants, the authors compared the games with each other and with a third baseline game using binary decisions similar to related work. The study shows that, while all games lead to performance increases, new games do not offer significant improvements over the baseline. Longitudinal tests three months later show that knowledge can be retained as participants still performed significantly better than before playing either of the games.

"Towards Transforming Game Premise: Validating an approach for Developing Cooperative Serious Games", by Grudpan et al. [3], propose a systematic approach, named "Transforming Game Premise", with a three-phase guideline for transforming an existing cooperative entertainment game into a cooperative SG. To demonstrate the application, a

game prototype was developed following the guided steps. The authors validated the guidelines by conducting two user studies. The first study aims at validating the game's effectiveness for learning purposes. The second study is a qualitative study evaluating game developers' perception of the usability and usefulness of the Transforming Game Premise guideline. Both the studies confirm usefulness of the proposed guideline. However, they also indicate that the guideline still needs more clarity in identifying the relation between game elements and players' interaction/cooperation.

References

[1] C. Bonnat, E. Sanchez, *"Toward a Digital Companion to Monitor a Mixed Reality Game,"* International Journal of Serious Games, 9(3), 5-21, 2022. https://doi.org/10.17083/ijsg.v9i3.504

[2] R. Roepke, V. Drury, U. Meyer, U. Schroeder, *"Exploring and Evaluating Different Game Mechanics for Anti-Phishing Learning Games,"* International Journal of Serious Games, 9(3), 23-41, 2022. https://doi.org/10.17083/ijsg.v9i3.501

[3] S. Grudpan "*Towards Transforming Game Premise: Validating an approach for Developing Co-operative Serious Games*," International Journal of Serious Games, 9(3), 43-61, 2022. https://doi.org/10.17083/ijsg.v9i3.502