Introduction to the Serious Games, Gamification and Innovation Minitrack

Imed Boughzala
Telecom Ecole de Management
Institut Mines-Telecom, Paris, France
imed.boughzala@it-sudparis.eu

Hélène Michel
Grenoble Ecole de Management
helene.michel@grenoble-em.com

Sara de Freitas
Serious Games Institute et Murdoch University, Australia
s.defreitas@murdoch.edu.au

A Serious Game combines a serious intention with a game’s rules and targets. They are often considered to be technological applications that use games to engage individuals in an experience through which a learning or professional training aim can be explored. From the innovation perspective, concepts such as serious gaming and gamification are the most interesting and valuable in this domain. If the first repurposes a game via different methods, in order to offer activities that go beyond mere entertainment; the second uses game design to enhance individual’s willingness to participate to originally non-playful experiences.

Serious Games challenge the notions of prevention, training, knowledge assessment, coaching, communication, data collection, design and evaluation, etc. in various fields such as education, healthcare, marketing, safety, culture to name but a few. From an academic point of view, serious games are studied in different disciplines, as computer science, psychology, education sciences or communication. In a decade, they became a field of research and business. Despite the growth in the use of Serious Games, many research questions remain underexplored and the literature remains disparate, such as those related to their design, choice, adoption, use and assessment. The gamification is today considered as an essential driver of innovation in this domain. Therefore, it is important to understand how Serious Games can best be designed and used as an environment for organizational learning. Thus this minitrack covers Serious Games usage and gamification as new challenges.

This year, seven papers were selected for inclusion in the proceedings. The first paper, “A Field Application to Vet a Serious Game toward Learning Objectives” by Imed Boughzala, tested an assessment grid in the higher education field with 41 graduate students to assess their learning performance using StarBank the Game to understand the principal mechanisms of banking.

The second paper, “Why Do Teachers Use Game-Based Learning Technologies?: The Role of Individual and Institutional ICT Readiness” by Juho Hamari and Tuula Nousiainen, investigates how different individual and institutional factors pertaining to ICT readiness influence teachers’ adoption of game-based learning technologies.

The third paper, “Observed Interaction in Games for Down Syndrome Children” by Isys Macedo, Daniela Trevisan, Cristina Nader Vasconcelos, Esteban Clua, proposes, through a case study, a method for evaluating the children’s behavioral interactions with a game, more specifically for evaluating playful applications for kids with cognitive disabilities.

The fourth paper, “Serious Games and Their Use in HRM: A Typology of Uses in CAC40 Companies” by Oihab Allal-Cherif and Mohamed Makhlouf, provides a typology of serious games from the human resources management (HRM) perspective to help managers in their choice according to their use.

The fifth paper, “The Effects of Game Dynamics on User Engagement in Gamified Systems”, by Ayoung Suh, Christian Wagner and Lili Liu, develops a research model that predicts an individual’s engagement with the system.

The sixth paper, “Increasing intranet usage through gamification – insights from an experiment in the banking industry” by Benedikt Morschheuser, Christian Henzi and Rainer Alt, applies gamification to leverage the use of information for information-intensive business tasks in the context of corporate intranets.

The final paper, “Model-Driven Serious Game Development: Integration of the Gamification Modeling Language GaML with Unity” by Amir Matallaoui and Philipp Herzig, introduces a model-driven architecture for helping in the design and evaluation of Serious Games through using building blocks.

The papers in this minitrack discuss different aspects related to the adaption of Serious Games and the use of gamification as an innovation. Each offers a unique contribution to our understanding of how Serious Games would be used to support learning. We commend them to your reading, and hope they will inspire your research and practice.