

Foreword: 1st Workshop on Gamification and Games for Learning (GamiLearn'17)

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Raph Koster once famously said in his book 'A theory of fun for game design' that "fun is just another word for learning. Games teach you how aspects of reality work, how to understand yourself, how to understand the actions of others, and how to imagine." We believe that games are indeed powerful motivators for learning and positive behaviour change. To celebrate games and their potential, we organized the First International Workshop on Gamification and Games for Learning (GAMILEARN'17), which was held in June 5-6, 2017, Puerto de La Cruz, Tenerife, Spain in conjunction with the Fifth International Conference of Videogames and Education (CIVE'17).

Our workshop was organized by two Spanish institutions: Universitat Oberta de Catalunya and Universidad de La Laguna, and sponsored by the HCI Games Group at the Games Institute of the University of Waterloo in Ontario, Canada, the Spanish chapter of the ACM SIGCHI (CHISPA), and the IEEE Education Society. Moreover, ICA Group has supported the industrial track of this workshop. Contributions from all researchers, practitioners, and industry about the application of gamification and games in learning environments were accepted into GAMILEARN.

The inclusion of game experiences in the design of learning materials has been positively shown to motivate students. These experiences are introduced in courses either by considering game design principles in the course structure layout (gamification, gameful design) or directly using games as discrete learning resources (serious games). This topic has garnered great interest in both academia and industry, as reflected by the amount of academic publications in the recent years, especially those showing case studies, hands-on experiences, or business growth of the enterprises specialized in gamification or the development of games for learning.

This international workshop broadly covered all aspects of gamification and games for learning, including user studies,

design frameworks, techniques and strategies, methodologies, tools and applications, ecosystems, analysis and assessment, personalization approaches, systems integrations, data management, architectures, innovations to market, as well as any works in progress. Our main goal in hosting this event was to bring together stakeholders for the purpose of exchanging ideas and experiences and encouraging networking between academia and industry. We distinguished between submissions from academia and industry for the proceedings.

We received 27 manuscripts from seven different countries, such as Spain, Portugal, Italy, Germany, the United States, Canada, and Chile. The accepted manuscripts were presented in one of the following tracks: gamification platforms and design, gamification case studies, learning through games, impact of games, and games and industry.

In the gamification and design track, participants presented platforms for offering gamification elements as a service, as well as systems to engage employees in enterprise knowledge learning and a social learning environment. The design scope was covered through learning design patterns that intend to systematize gamification-based solutions, and some analyses about how designers self-perceive their gameful learning activities. Moreover, one of the presentations described insights from gameful design and when it can lead to disengagement in an online course.

Diverse gameful design cases studies had a large presence in the workshop, and a specific track was created for this purpose. To motivate students, results from gameful courses taken from a wide scope, such as engineering, education or humanities were presented. A special interest was noted on social relationships, student cooperation, integrated narratives, and continuous progression.

Furthermore, several studies on the social impact of games for learning were present in the workshop. They revealed the high impact that games can achieve in the acquisition of professional skills and induce emotions.

The process of learning through games was discussed too, through a quiz-based serious game to teach University-level knowledge, an approach which combined game-based and competence-based learning. Different health-related topics were also discussed, from the promotion of nutrition and prevention of obesity in children through video games, to game resources to improve the knowledge and training of professionals in hospitals.

A special track was dedicated to industry contributions, with the presentation of a novel tool that allows creating team-based competitions, while incorporating lessons and concepts about the stock market and businesses. Another talk highlighted the relevance of localization in games or methods based on tutorials. Finally, a company presented their experience in designing, creating, and deploying 3D immersive simulations and serious games using game-based learning technology for training.

Each author with an accepted manuscript had 15 minutes for presenting the work at the conference, as well as 5-10 minutes for questions from attendees, and discussion promoted by the session chairs. Presentations in the industry track were 30 minutes. All of the submissions accepted from academia in the workshop were published in an open access-publication (a digital version with an ISBN). The best papers from academia received an award at the closing session and were invited to publish an extended version of their work in the *Journal of Information Technology Research (JITR)* and the *International Journal of Interactive Multimedia and Artificial Intelligence (IJIMAI)*.

We were pleased at the quality of the submissions received. At least two members of the academic program committee, plus one member of the organizing committee reviewed all the papers. Thus, we are thankful and want to

highlight and acknowledge the important work of the academic committee that ensured the level of quality of all accepted papers, as well as providing comments to improve the final accepted papers.

Additionally, we counted on the participation of recognized keynote speakers in the area of Human-Computer Interaction (HCI) and games, such as Dr. Lennart E. Nacke, Director of the HCI Games Group and Associate Professor for HCI and Game Design at the University of Waterloo. He introduced five gamification design languages for the first time with examples of how to apply them in a gamified learning context, so that designers can self-assess a gamification language and comprehend the language of other designers.

Moreover, Dr. Baltasar Fernández-Manjón, Full Professor in the Department of Software Engineering and Artificial Intelligence at the Complutense University of Madrid, and an expert in the field of serious games, talked about gamification in medical training, from content and procedures to game-like applications. He presented his experience in creating different game-like applications for medical training in different domains and his cooperation in projects with different medical institutions (e.g., Spanish National Transplant Organization, Complutense Medical School, and Harvard-MGH).

Finally, Isidro Quintana, CEO at Promineo Studios with 13 years dedicated to video games in industry, talked about the possibilities of learning from entertainment, highlighting that the knowledge of players' needs is key and measuring their behaviour can help assess their needs. He showed how we can learn from our players to increase retention on casual games, and how we can make earnings grow with effective monetization strategies.

In addition to keynotes, the organizing committee promoted and developed a panel discussion on opportunities, challenges, and critical issues on gamification of learning.

Finally, we want to thank the volunteers and assistants for their support of the event.