Welcome to the third issue of the *International Journal of Game-Based Learning (IJGBL)*. *IJGBL* publishes empirical and theoretical articles on the design and evaluation of Game-Based Learning solutions. This journal seeks to inform researchers and practitioners on how learning and motivation can be improved through video games.

In the first issue of the journal it was emphasized how we need to address the challenges posed by the design and deployment of educational video games, notably by employing a multidisciplinary approach, defining reliable theoretical frameworks, and providing practical guidelines to instructors. This third issue perfectly illustrates these objectives and features authors with expertise in psychology, education, and computer science. The six articles included in this issue cover a wide range of topics such as stereotypes associated with video games, game achievement systems, programming with games, the cognitive and motivational impacts of sound, and the links between educational theories and game design.

Regardless of their background or expertise, readers should find these articles inspiring, informative and practical.

In the first article, Bösche and Kattner investigate stereotypes associated with video games. They describe how video games have been depicted negatively in the media and to which extend these allegations are actually supported by research. They provide a comprehensive literature review of possible side-effects caused by games, describe attitudes of teachers and parents towards video games, and show that, while there are some risks associated with video games (e.g., violent behaviors, desensitization, or addiction), they may only apply to a minority of vulnerable individuals. The authors also demonstrate that many studies, which consider the negative effects of video games on players’ behaviors, may lack validity due to insufficiently rigorous experimental design. The authors also explain that some violent video games, often depicted negatively in the media (e.g., First-Person Shooters), may be beneficial to players. Bösche and Kattner provide suggestions as to how parents and teachers can effectively gain a better understanding of the advantages and limitations of video games, and they also describe a GBL environment designed to support the understanding of violence in video games.

In the second paper, Evans, Jennings, and Andreen propose to harness the potential of game achievement systems to measure learning and engagement in educational video games. They describe the concept of achieve-
ment from a psychological perspective, and illustrate how it applies to both traditional and GBL environments. They explain why assessment techniques employed in formal education, which usually focus on lower-level cognitive activities rather than higher-thinking skills, usually fail to assess students' in-depth knowledge of the topic. Evans, Jennings and Andreen then provide insights on how to successfully combine achievements systems and learning objectives in educational games, and they explain their theoretical framework, which is partially based on well-received educational theories.

In the third paper, Kazimoglu, Kiernan, Bacon, and MacKinnon propose an innovative approach to teach programming skills based on computational thinking and GBL. They explain that, despite a large body of evidence on GBL, very few educational video games are designed to teach programming skills. The authors have therefore designed a model that addresses some of the pitfalls found in educational game design. This model, which is based on constructivist theories, accounts for learning objectives, academic support, scaffolding strategies, gender and expertise neutrality, and activities based on both collaboration and competition. The implementation of these guidelines is then illustrated through the description of a video game developed by the authors, where players are encouraged to think computationally to solve puzzles.

In the fourth paper, Linek, Marte, and Albert analyze how sound, and more particularly background music, can influence learning and motivation in educational video games. They explain the rationale for their approach and review theories and experiments related to music, cognition and motivation. Following this literature review, they describe experiments conducted to assess how music can effectively influence motivation and learning in video games. This study provides interesting insights on how music can impact on intrinsic motivation, cognitive load, and learning.

In the fifth paper, Maciuszek, Ladhoff, and Martens explore how design patterns can be applied to video games for educational purposes. They report on four studies where content design patterns and intelligent tutoring systems were employed to generate and manage GBL environments. They present interesting templates and design patterns for character and environment design.

In the sixth and last paper, Shelton, Satwicz, and Caswell analyze well-established educational theories from Piaget, Bruner and Vygotsky, and assess their applicability to the design and development of GBL applications. Their paper provides an in-depth explanation of the theoretical basis for these concepts, and identifies links between these theories, current technologies, and game activities. Shelton, Satwicz, and Caswell then analyze a video game entitled 'Portal' in the light of these principles, and they illustrate the intricate links that exist between game play, learning and motivation.

I hope that you enjoy reading this issue. I also hope that you will consider submitting an article to subsequent issues of the journal, and contribute to the expanding body of knowledge on Game-Based Learning.

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