





16th European Conference on Games Based Learning 6-7 October 2022, Lusófona University, Lisbon Portugal

Mini Track on Learning by Designing Games

Mini Track Chairs: Pedro Neves & Phil Lopes, Lusófona University, Portugal



Game Based Learning (GBL) is typically associated with the idea of learning through play, but it is also important to consider that the act of designing a game (digital, analog, locative, etc.) can be a relevant form of learning, for instance teaching computer programming by implementing a digital game, or economics through designing the supply and demand of certain products within a simulated virtual world or in a boardgame.

Relevant aspects of learning through play are also present, and even deepened, in learning by designing play. Game-playing is particularly well-suited to learning and problem-solving in contexts where the best solution is highly-contingent, with non-obvious solution paths, and the integration of multiple criteria – strongly exemplifying second-order problem-solving. The second-order nature of these problem-domains is deepened for students that are learning by making games for those domains, because game design is in itself an excellent example of second-order problem-solving.

The focus of this track is to look at novel possibilities in learning through game-making as second-order GBL. The track welcomes case-studies, models, and proposals on game-making for learning with a particular focus on game-creation toolkits and frameworks. Learning through game-making, writing rules for procedurality (including the writing of procedural narratives), and AI are all valued areas of focus (e.g. AI-based Game Design). Applications of learning-by-game-making to previously-untapped educational fields are of particular interest. Suggested topics include but are not limited to:

- Teaching through Game Design in analog, mixed-media or digital games;
- New domains for learning through game-making;
- Democratization and scalability of game-making, such as frameworks and toolkits;
- Developing Game Artificial Intelligence techniques such as Procedural Content Generation, Machine Learning, etc., for the purposes of learning a specific topic (e.g. Geography, Narrative, History);
- Assignments and project-based learning through game-making;
- Students creating serious games.



Pedro Neves is an integrated researcher with HEI-Lab and an Auxiliary Professor at Lusófona University, teaching on Interactive Narratives and Game Design. Pedro's research interests are game design vocabularies and conceptual tools, and he is involved in the development of game creation toolkits for education and healthcare.

Phil Lopes is an integrated researcher with HEI-Lab and an Auxiliary Professor at Lusófona University (Portugal), and is involved in the development of virtual environments for therapeutic and research purposes. Phil's research interests are human biofeedback data and virtual environments in the fields of Digital Game AI, Affective Computing, Neuroscience and Game Design.

Submission details

In the first instance a 300 word abstract is required, to be received by **16 March 2022.** Submissions must be made using the_online submission form at

https://www.academic-conferences.org/conferences/ecgbl/ecgbl-abstract-submissions/

If you have any questions about this track please email: pedro.neves@ulusofona.pt phil.lopes@ulusofona phil.lopes@ulusofona.pt phil.lopes@ulusofona.pt pedro.neves.pedro