

1st International Workshop
on Pedagogically-driven
Serious Games



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Editors

Stefano Bocconi
(Cyntelix and Vrije University Amsterdam, the Netherlands)

Ralf Klamma
(RWTH Aachen University, Germany)

Yulia Bachvarova
(Cyntelix, the Netherlands)

Introduction

Technology Enhanced Learning is a promising area where Serious Games can have an impact beyond pure entertainment. Despite this potential, two issues stand in the way of achieving learning effects:

- Few pedagogical theories are sufficiently formalized to allow implementation; therefore Serious Games seldom fully utilize the potential of pedagogy.
- Even if present, pedagogical principles are implicitly implemented in the game story, structure, and characters, so that it is very difficult to test different theories on the same game mechanics. This results in low reusability and high costs of pedagogically-driven serious games that hinder their widespread use.

To address these issues, this workshop focuses on:

- Formalizations of pedagogical theories potentially capable to drive the elements in a game's world, such as narrative and characters' behavior.
- Game frameworks based on storytelling, explicit game mechanics and intelligent agents that can provide a programmable environment to implement pedagogical formalizations

Participants to the workshop are researchers from the following areas:

- Serious games and Technology-Enhanced Learning research in general
- Agent technologies (especially in an interactive narrative context). Efforts in the Agent community such as Pogamut that connect agent platforms to games like Unreal Tournament can be the ground where these approaches can be implemented.
- Storytelling and Interactive narrative research; narrative engines such as Brutus, Minstrel and Mexica.
- Pedagogy theories/frameworks especially at a stage close to or already formalized.

Topics of interest include but are not limited to:

- Formalizations of pedagogical theories for the purposes of serious games
- Game frameworks that provide a programmable environment to implement pedagogical formalizations, based on any of the following:
 - Storytelling
 - Explicit game mechanics
 - Intelligent agents
- Approaches to modeling the interdependencies between pedagogy, storytelling and game mechanics in serious games and the translation of these interdependencies into agent behaviour
- Empirical studies addressing the interdependencies between pedagogy, narrative and storytelling and game mechanics
- Architectures for serious games that allow reusability
- Existing programmable platforms, such as Pogamut, that connect agent platforms to games
- Approaches to "programmable" narrative and storytelling in serious games
- Approaches to "programmable" intelligent agents in serious games

International Program Committee

- Stefano Bocconi (Cyntelix and VU Amsterdam, NL)
- Ralf Klamma (RWTH Aachen University, Germany)
- Yulia Bachvarova (Cyntelix, NL)
- Ana Paiva (INESC, PT)
- Frank Dignum (Utrecht University, NL)
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- Sandy Louchart (Heriot-Watt University, UK)
- Ido Iurgel (Universidade do Minho, Portugal)
- Milos Kravcik (RWTH Aachen University, Germany)
- Michael D. Kickmeier-Rust (University of Graz, Austria)
- Frank Nack (University of Amsterdam, NL)
- Sara De Freitas (Serious Games Institute, UK)
- Rob Nadolski (Open University, NL)
- Roland Klemke (Open University, NL)

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