



NEWSLETTER

SEPTEMBER, 2016

BEACONING AT IFIP ICEC 2016

15th International Conference on Entertainment Computing 2016
28 - 30 September 2016, Vienna, Austria

BEACONING WORKSHOP: Constructing and Experimenting Pervasive, Gamified Learning

Researchers and game designers have made efforts to model and manage the user context data, devices, and pervasive spaces, in order to enhance user experience. The workshop has explored pervasively enriched environments and how information about such environments can be used to enable selective responses such as triggering events or retrieving and prompting information relevant to the task at hand. The exploration relies on the Pervasive Game Design Framework (PGDF) that integrates seven dimensions: pervasive context, pedagogical objectives, assessment metrics, difficulty level (ranging from casual to challenging), user skills, social interaction, and elements of fun.

J. M. Baalsrud Hauge, I. A. Stanescu, A. Stefan, T. Lim, S. Arnab



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Full paper: Using gamification mechanisms and digital games in structured and unstructured learning contexts

The transition from the predefined and often inflexible tools and practices of institutionalized mass-education towards dynamic and flexible learning contexts remains a challenge. Enabling rich and engaging learning experiences that consider the different progression rates and routes of each student require new approaches in education. The paper presented at ICEC 2016 has analyzed opportunities for employing gamification and digital games to construct navigable dynamic learning channels and enable pathways towards turning users into adaptive learners able to reach learning goals both in structured and unstructured contexts.

Authors: Ioana Andreea Stanescu, Antoniu Stefan, Jannicke Madeleine Baalsrud Hauge

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BEACONING AT ASME CONFERENCE

22 August 2016, Charlotte, USA

BEACONING project was presented at the 36th edition of the International Design Engineering Technical & Computers & Information in Engineering Conference held by ASME. During the session: CIE-25-1 VES: Game Ecosystems in Engineering presented two papers which addressed some of the BEACONING concepts.

The first paper **Approaches to Reengineering Digital Games** written by Antoniu Stefan (ATS), Jannicke Baalsrud Hauge (BIBA) and Ioana Stanescu (ATS), focused on gamified and pervasive concepts, like the potential of contextual knowledge and motivation using multiple elements (GPS location; Wifi hotspots; beacons; temporal elements; individual interests; group interests), how pervasive technologies can be used to enhance creativity in a user-centric way and which are the issues of adaptable content that may occur during the product design processes in game-based and gamified environments.



The second paper **A comparative analysis on educating mechanical engineers through serious games using pervasive technologies** written by Jannicke Baalsrud Hauge (BIBA), Dr. Theodore Lim (HWU), Mr. Matthias Kalverkamp, Prof. Francesco Bellotti and Mr. Florian Haase, focused on analyzing serious games from the perspective of learning and gaming mechanics and the virtual environment and systems that can be made pervasive and thus both become more appealing to the students, but also to deliver a new learning experience compared to typical serious games used to for engineering education today.

DELIVERABLES



Work Package 3

- D3.2 Technology and learning environment inventory
- D3.3 Learning environment system specification



Upcoming

- D1.7 Data management plan
- D4.6 Game analytics and adaption component design
- D7.1 Technology watch

COVENTRY UNIVERSITY & ORT FRANCE MEETING

19 August 2016, Paris, France

On July 19th, ORT and COVUNI met in Paris to discuss the ORT scenario and how to emphasize their "beaconization" by introducing beacons, gamified activities and pervasiveness. During the meeting two existing scenarios were discussed:

S 1

Basic algebra calculation at a secondary and high school level in the context of avoiding Early School Leaving and to try to prepare as well as possible the passage from high school to university level for students.

S 2

Knowledge and management of digital identities to help foster understanding of the impact of one's identity on the internet and help to control and master it

These two scenarios have been improved by ORT to now include the concept of the type of technology used inside a lesson plan and to mention the academic competencies addressed by each scenario.



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BEACONING AT aDShe CONFERENCE 30 June 2016, Birmingham, UK

On Thursday 30th June 2016, Managing Director Lawrence Howard and Theresa Pruvost Head of Operations attended the 15th annual conference of the Association of Dyslexic Specialists in Higher Education (aDShe), at Aston University in Birmingham.

Lawrence Howard said, "It was a great opportunity to discuss the Beaconing Project, how it will be using gamification to help improve the learning of Science, Technology, Engineering and Mathematics (STEM) subjects and enable students to apply what they are learning."

BEACONING AT ACADEMIA OF CRETEIL

19 June 2016, Thiais, France

On June 29th, ORT presented to the representatives of the Numeric education of one high school of Thiais (Academia of Creteil) the Beaconing gamified and pervasive concepts. In particular by proposing a gamified approach of the lessons Beaconing will help in motivating students and preventing early school leaving.

It has been presented to the representative teachers in charge of the Numeric education; like all other ORT schools, where Beaconing platform has been presented, this very challenging topic is raising great interest in the education sector. The objectives were to confront our existing scenarios and to identify possible new scenarios and later enroll new schools for the small and large scale pilots.



UPCOMING EVENTS

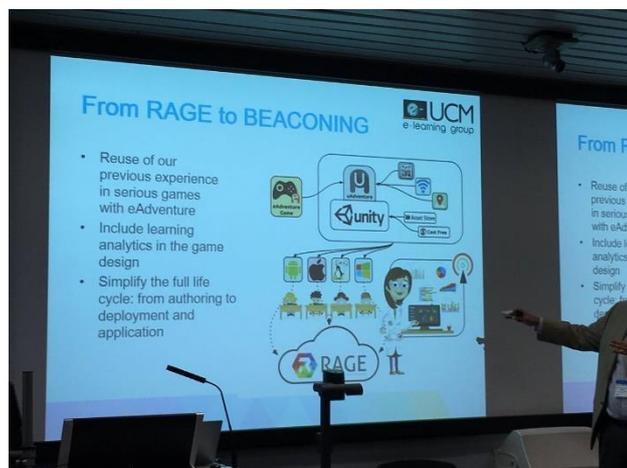
BEACONING AT ECGBL 2016

06 - 07 October 2016, Paisley, Scotland

Gaming Learning Analytics: Contributing to the Serious Games

Keynote speaker Dr. Baltasar Fernández-Manjón from Complutense University of Madrid (UCM) in Spain

Video games have become one of the largest entertainment industries. However, their use to improve education, commonly referred to as serious games (SG), is still not a mature industry. Serious games face different challenges when brought into the classroom, ranging from pragmatic issues (e.g. a high development cost) to deeper educational issues, including a lack of understanding of how the students interact with the games and how the learning process actually occurs. In this talk, we will address these issues and describe how we consider that Gaming Learning Analytics (GLA) can contribute to the maturity of the SG ecosystem and to the applicability of SG in different domains. In this presentation we will present some of the results of two large H2020 SG projects: RAGE (*Realising an Applied Gaming Ecosystem*, www.rageproject.eu) that aims to develop, transform and enrich advanced technologies from the leisure games industry into self-contained gaming assets that help game studios to develop applied games easier, faster and more cost-effectively, and BEACONING (*Breaking Educational Barriers with Contextualised, Pervasive and Gameful Learning*, www.beaconing.eu) that focus on 'anytime anywhere' learning by exploiting pervasive, context-aware and gamified techniques and technologies, framed under the Problem-Based Learning approach.



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