



8th GALA conference, Athens 2019

An event organized by: the [Serious Games Society](http://seriousgamesociety.org)

Organization Structure

General Chair:

Antonios Liapis (University of Malta, Malta)

Program Chairs:

Georgios N. Yannakakis (University of Malta, Malta)

Manuel Gentile (CNR – ITD, Palermo, Italia)

Manuel Ninaus (Leibniz-Institut fuer Wissensmedien, Germany)

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Tutorials & Keynotes Chair:

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Administrative & Financial Chair:

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Local Arrangements Chair:

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Program Committee (additions TBD):

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Ralf Klamma (RWTH Aachen University)
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Theo Lim (Heriot-Watt University)
Sandy Louchart (Glasgow School of Art)
Heide Lukosch (Delft University of Technology)
Ioanna Lykourantzou (Utrecht University)
Katerina Mania (Technical University of Crete)
Samuel Mascarenhas (Universidade de Lisboa)
Adam Mayes (Uppsala University)
Michela Mortara (CNR imati Ge)
Thierry Nabeth (P-Val Conseil)
Rob Nadolski (Open University of the Netherlands-Welten Institute)
Lucia Pannese (Imaginary)
Davide Parmigiani (University of Genova (Italy))
Sobah Abbas Petersen (Norwegian University of Science and Technology)
Petros Petridis (Univeristy of Thessaly)
Johanna Pirker (Graz University of Technology)
Yurgos Politis (UCD)
Maria Popescu (Carol I National Defence University)
Rui Prada (Universidade de Lisboa)
Marius Preda (Institut TELECOM)
Ion Roceanu (National Defence University)

Margarida Romero (Laboratoire d'Innovation et Numérique pour l'Education. Université de Nice Sophia Antipolis)

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Christos Sintoris (Human Computer Interaction Group, Electrical and Computer Engineering Department)

Panote Siriaraya (Delft University of Technology)

Yannis Skarpelos (Panteion University)

Heinrich Söbke (Bauhaus-Universität Weimar)

Ioana Andreea Stefan (Advanced Technology Systems)

Krassen Stefanov (Faculty of Math & Informatics, Sofia University "St. Kl. Ohridski")

Matthias Teine (University Paderborn)

Maria Tsourma (Information Technologies Institute, Centre for Research and Technology Hellas (CERTH))

Pauliina Tuomi (Tampere University of Technology)

Erik Van Der Spek (Eindhoven University of Technology)

Herre Van Oostendorp (Utrecht University)

Spyros Vosinakis (University of the Aegean, Department of Product and Systems Design Engineering)

Wim Westera (CELSTEC-Centre for Learning Sciences and Technologies, Open University of the Netherlands)

Josef Wolfartsberger (University of Applied Sciences Upper Austria)

Stelios Xinogalos (University of Macedonia)

Zerrin Yumak (Utrecht University)

Conference Venue

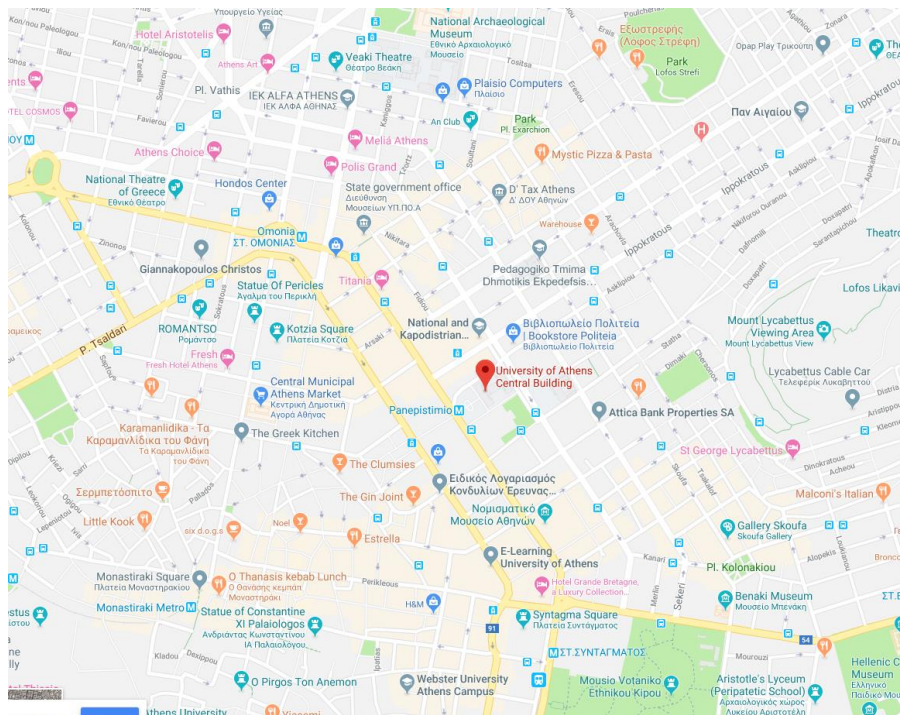


University of Athens



Amphitheater "Ioannis Drakopoulos"

The GALA 2019 conference took place in the historical center of Athens, at the University of Athens Central Building (Eleutheriou Venizelou 30, Athina 106 79) . The venue is the amphitheater "Ioannis Drakopoulos", an old amphitheater of medicine, located in the main building of the National and Kapodistrian University of Athens, Propylaea. This area also functioned in the past as an amphitheater of teaching. The amphitheater was renamed "Ioannis Drakopoulos" amphitheater after the death of the active Rector, Professor of the Department of Geology and Geoenvironment, Ioannis Drakopoulos, in 1999. The conference room has seating for 128 attendees, and includes a reception hall.



Exhibition Venue



INNOVATHENS at Technopolis City



Exhibition space inside INNOVATHENS

The exhibition space for GALA 2019 is the Hub of Innovation & Entrepreneurship of Technopolis City of Athens (**INNOVATHENS** powered by Samsung). The Technopolis City of Athens is a historical old gas deposit which has been transformed into a modern, well equipped space serving as an integrated center for the networking, knowledge and experience exchange between enterprises, research institutions and young people of the city of Athens, and beyond. INNOVATHENS has been established as the center for tech-transfer, where young entrepreneurs and creative people can effectively mingle with experienced businessmen, academics and researchers, for the entrepreneurial ecosystem to flourish and develop. In this popular venue (Technopolis City receives more than 900.000 visitors per year) and Athens' hub of innovation, the GALA 2019 exhibition will invite local industry and academics to engage with attendees in an open and public celebration of serious games.

Programme

Wednesday, 27 November 2019

Location: University of Athens Central Building (Eleutheriou Venizelou 30, Athina 106 79)

8:30-9:00 Registration

9:00-9:30 Welcome and introductions (**Antonios Liapis + Sponsors**)

09:30-10:30 Introducing: **Jannicke Baalsrud Hauge**

Keynote by **Maria Roussou**

10:00-11:30 1st paper session: Cognition

Chair: **Jannicke Baalsrud Hauge**

- *Annebeth Erdbrink, Rens Kortmann and Alexander Verbraeck*. Reinforcing the Attitude-Behavior Relationship in Persuasive Game Design - Four Design Recommendations for Persuasive Games for Societal Interventions
- *Styliani Chytiroglou, Isabella Pollak and Helen Pain*. Incorporating Theories of Metacognitive Learning in the Design of a Serious Game on Emotion Regulation.
- *Manuel Gentile, Giuseppe Città, Antonio Lieto and Mario Allegra*. Some notes on the possible role of cognitive architectures in serious games

11:30-12:00 COFFEE

12:00-13:30 2nd paper session: AI & Technology

Chair: **Georgios N. Yannakakis**

- *Manuel Ninaus, Katerina Tsarava and Korbinian Moeller*. A Pilot Study on the Feasibility of Dynamic Difficulty Adjustment in Game-Based Learning Using Heart-Rate
- *Antonios Liapis, Daniele Gravina, Emil Kastbjerg and Georgios N. Yannakakis*. Modelling the Quality of Visual Creations in Iconoscope
- *Pierre-Yves Gicquel, Iza Marfisi-Schottman and Sébastien George*. Lessons Learned from the Development of a Mobile Learning Game Authoring Tool
- *Raja Lala, Johan Jeuring and Marcell van Geest*. Scaffolding open text input in a scripted communication skills learning environment

- *Michal Švarný and Vit Sisler*. Towards an Operational Definition of Procedural Rhetoric

13:30-14:30 LUNCH

14:30-16:00 3rd paper session: Best papers

Chair: Antonios Liapis

- *Irene Vargianiti and Kostas Karpouzis*. Effects of Game Based Learning on Academic Performance and Student Interest
- *Daniel Atorf, Ehm Kannegieser and Wolfgang Roller*. A Study on enhancing learnability of a serious game by implementing a pedagogical agent
- *Konstantinos Georgiadis, Tjitske Faber and Wim Westera*. Bolstering Stealth Assessment in Serious Games
- *Berend Baas, Dennis van Peer, Jan Gerling, Matthias Tavasszy, Nathan Buskulic, Nestor Z. Salamon, J. Timothy Balint and Rafael Bidarra*. Loud and Clear: The VR game without visuals
- *Roland Klemke, Alessandra Antonaci and Bibeg Limbu*. Gamifire - A scalable, platform-independent Infrastructure for Meaningful Gamification of MOOC

16:00-16:30 COFFEE

16:30-18:00 Poster session and Reception

Thursday, 28 November 2019

Locations: 9:00-14:00 **University of Athens Central Building** (Eleutheriou Venizelou 30, Athina 106 79)

15:00-20:00 **INNOVATHENS powered by Samsung**, Technopolis (Pireos 100, Athina 118 54)

09:00-11:00 4th paper session: Applications 1

Chair: Manuel Ninaus

- *Ismael Espinosa-Curiel, Mitzi Josué Martínez-Rosas, Juan Manuel Del Hoyo-Ceja, Edwin Emeth Delgado-Pérez and Edgar Pozas-Bugarin*. HealthyLunch: A serious Game for

Educating and Promoting the Intake of the Recommended Number of Daily Servings Among Children

- *Angeliki Antoniou, Marios Ilias Dejonai and George Lepouras.* 'Museum Escape': a game to increase museum visibility
- *Varvara Garneli, Christos Sotides, Konstantinos Patiniots, Ioannis Deliyannis and Konstantinos Chorianopoulos.* Designing a 2D Platform Game with Mathematics Curriculum
- *Simon Greipl, Kristian Kiili, Korbinian Moeller and Manuel Ninaus.* Lifelong learning with a digital math game: performance and basic experience differences across age
- *Bob Dorland, Amir Zaidi, Stanley Lageweg, Rinke Schreuder, Lennard Van Hal, Jurgen Mulder, David Alderliesten and Rafael Bidarra.* Quantum physics vs. classical physics: introducing the basics with a virtual reality game
- *Liam Mac An Bhaird, Mohammed Al Owayyed, Ronald van Driel, Huinan Jiang, Runar Johannessen, Nestor Z. Salamon, J. Timothy Balint and Rafael Bidarra.* Learning geothermal energy basics with the serious game HotPipe

11:00-11:30 COFFEE

11:30-13:30 5th paper session: Serious Game Design 1

Chair: **Manuel Gentile**

- *Kristian Kiili and Pauliina Tuomi.* Teaching educational game design: Expanding the game design mindset with instructional aspects
- *Stamatia Savvani and Antonios Liapis.* A Participatory Approach to Redesigning Games for Educational Purposes
- *Melinda Mathe, Harko Verhagen and Mats Wiklund.* From Skeptics to Advanced Adopters: Investigating Digital Game Adoption Practices, Challenges and Needs of Teachers in Swedish Schools
- *Maud Plumettaz-Sieber, Catherine Bonnat and Eric Sanchez.* Debriefing and Knowledge Processing: An Empirical Study about Game-Based learning for Computer Education
- *Stelios Xinogalos and Stavros Tsikinas.* Designing Serious Games for People with Special Needs: Implications from a Survey
- *Zoe Platt-Young, Bahareh Shahri, Dean Sutherland and Simon Hoermann.* Requirements Analysis of a Serious Game for Deaf Players

13:30-14:30 LUNCH

15:00-20:00 Exhibition

17:00 Announcement of Competition winners

19:00-20:00 Industry Panel

20:30-23:00 Banquet

Friday, 29 November 2019

Location: University of Athens Central Building (Eleutheriou Venizelou 30, Athina 106 79)

09:30-10:30 Introducing: **Remco Veltkamp**

Keynote by **Sander Bakkes**

10:30-11:30 6th paper session: Platforms

Chair: **Remco Veltkamp**

- *Rosanna Di Gioia, Stéphane Chaudron, Monica Gemo and Ignacio Sanchez.* Cyber Chronix, participatory research approach to develop and evaluate a storytelling game on personal data protection rights and privacy risks
- *Balázs Barna and Szabina Fodor.* A data-driven approach to analyze user behavior on a personalized gamification platform
- *Pierre-Yves Gicquel, Ludovic Hamon, Florian Plaut and Sébastien George.* Albiziapp: a Web, Collaborative and Gamified Tool Dedicated to Tree mapping and learning

11:30-12:00 COFFEE

12:00-13:30 7th paper session: Serious Game Design 2

Chair: **Francesco Bellotti**

- *Elina Roinioti and Eleana Pandia.* Planet Dewey: Designing a hybrid game to boost students' information literacy
- *Nafisul Kiron, Ifeoma Adaji, Jeff Long and Julita Vassileva.* Tower of Questions (TOQ): A Serious Game for Peer Learning

- *Raja Lala, Gemma Corbalan and Johan Jeuring.* Evaluation of interventions in blended learning using a communication skills serious game
- *Bo Kampmann Walther.* Using ludonarrative dissonance in Grand Theft Auto IV as pedagogical tool for ethical analysis
- *Eleni Korosidou and Tharrenos Bratitsis.* Infusing Multimodal Tools and Digital Storytelling in Developing Vocabulary and Intercultural Communicative Awareness of Young EFL Learners

13:30-14:30 LUNCH

14:30-16:00 8th paper session: Applications 2

Chair: **Iro Voulgari**

- *Paris Mavromoustakos-Blom, Sander Bakkes and Pieter Spronck.* Andromeda: a Personalised Crisis Management Training Toolkit
- *Hamna Aslam, Irek Almuhametov and Albert Sakhapov.* Understanding Attitude Towards Emergency Training Modes: Regular Drills And Serious Games
- *Rana Massoud, Francesco Bellotti, Stefan Poslad, Riccardo Berta and Alessandro De Gloria.* Towards a Reality-Enhanced Serious Game to Promote Eco-Driving in the Wild
- *Yoeri Appel, Yordan Dimitrov, Sjoerd Gnodde, Natasja van Heerden, Pieter Kools, Daniel Swaab, Nestor Z. Salamon, J. Timothy Balint and Rafael Bidarra.* A Serious Game to Inform Young Citizens on Canal Water Maintenance
- *Vera Stadler and David Rueckel.* Serious Business Game on Digitalization

16:00-16:30 COFFEE

16:30-18:00 SGS General Assembly

Posters: Wednesday 16:30-18:00

Location: University of Athens Central Building (Eleutheriou Venizelou 30, Athina 106 79)

- *Erik Massarczyk, Peter Winzer and Sina Bender.* Economic Evaluation of Business Models in Video Gaming Industry from Publisher Perspective
- *Joseph Alexander Brown* A Focused Conversational. Model for Game Design and Play-Tests

- *Ioannis Petroulis, Maria Tzelepi and Kyparissia Papanikolaou.* On the design of gamification elements in Moodle courses
- *Markos Konstantakis, Eirini Kalatha and George Caridakis.* Cultural Heritage, Serious Games and User Personas based on Gardner's Theory of Multiple Intelligences: "The Stolen Painting" Game
- *Christina Tsita and Maya Satratzemi.* A serious game design and evaluation approach to enhance Cultural Heritage Understanding
- *Hagit Meishar-Tal and Lizi Cohen.* Developing higher order thinking skills by game creation
- *Antero Lindstedt and Kristian Kiili.* Effect of whole-body movement on performance and efficiency: A comparison of three controlling methods for a math game
- *Cevin Zhang, Jannicke Baalsrud Hauge, Karin Härenstam and Sebastiaan Meijer.* A serious logistical game of paediatric emergency medicine: proposed scoring mechanism and pilot test
- *Konstantinos Georgiadis, Giel van Lankveld, Kiavash Bahreini and Wim Westera.* Reinforcing Stealth Assessment in Serious Games
- *Anique Kuijpers, Heide Lukosch and Alexander Verbraeck.* Exploring a mixed method approach: Simulation Games and Q methodology
- *Aaron Pendleton and James Okolica.* Creating Serious Games with the Game Design Matrix (GDM)
- *Iro Voulgari and Georgios Yannakakis.* Digital Games in Non-formal and Informal Learning Practices for Science Learning: a Case Study
- *Imre Dániel Báldy, Nikolaj Hansen and Thomas Bjørner.* How to design and measure a serious game aiming at emotional engagement of social anxiety
- *David A. Plecher, Christian Eichhorn, Annette Köhler and Gudrun Klinker.* Oppidum - A Serious-AR-Game about Celtic Life and History
- *Brenton M. Wiernik and Michael D. Coover.* A Quantitative Approach for Developing Serious Games for Aptitude and Trait Assessment
- *Dimosthenis Kotsopoulos, Cleopatra Bardaki, Thanasis Papaioannou, Stavros Lounis, George Stamoulis and Katerina Pramatarí.* Designing a Serious Game to Motivate Energy Savings in a Museum: Opportunities & Challenges
- *Fatima Hamiye, Bilal Said and Bader Serhan* A Framework for the Development of Serious Games for Assessment

- *Chrysanthi Nika, Ioannis Varelas, Nikos Bubaris and Vlasios Kasapakis*. Interactive Spatial Storytelling for Location-Based Games: A Case Study
- *Zeinab El Nashar, Alia El Bolock, Jailan Salah, Cornelia Herbert and Slim Abdennadher*. Investigating the Effect of Personality Traits on Performance under Frustration
- *Dimitris Ramos and Tharrenos Bratitsis*. Alternative teaching of History Subject in Primary School: The case of the 3D HIT playful activity

Best Paper Award

“Loud and Clear: The VR game without visuals”

By: Berend Baas, Dennis van Peer, Jan Gerling, Matthias Tavasszy, Nathan Buskalic, Nestor Z. Salamon, J. Timothy Balint and Rafael Bidarra

Proceedings

The proceedings of the conference have been published by Springer on the LNC book series:
<https://www.springer.com/gp/book/9783030343491>



Selected best papers will be published in extended version in the International Journal of Serious Games (<http://journal.seriousgamesociety.org/>).



GALA conf SG Awards 2019

CATEGORY BUSINESS

1st place:

Sci-Ops: Global Defense

Plasma Games

<https://www.sciencegamecenter.org/games/sci-ops-global-defense>

2nd place:

Invite Only VR: A Vaping Prevention Game

play4REAL & Preview Labs

<https://play4rlab.org/projects/inviteonlyvr/>

CATEGORY ACADEMY

1st place:

Harmonia: Save the Guardians

B. Botte; Link Campus - DASIC

<https://harmonia.it/>

2nd place:

Communicate

R. Lala, J. van Dortmund and M. Van Geest, Utrecht University / DialogueTrainer

<https://communicate.sites.uu.nl/>

Jury prize for its impact on Society and the Environment

CharGED

K. Vasilakis, D. Kotsopoulos, T. G. Papaioannou, C. Bardaki, S. Lounis, T. Apostologlou, A. Garbi, K. Pramataris, G. D. Stamoulis; ELTRUN Research Center & STEcon Lab & European Dynamics

<https://eltrun.gr/european-rd-projects/charged/>

Jury

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Iza Marfisi-Schottman

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