Antonios Liapis **Curriculum vitae**

Contact Information

For online security purposes, full contact information is available only on request.
an.liapis@gmail.com

Education

IT University of Copenhagen, Copenhagen, Denmark

PhD candidate, September 2011–2014

- Thesis Topic: Searching for Sentient Design Tools for Game Development
- Thesis Supervisor: Associate Professor Georgios N. Yannakakis
- Thesis Focus: Search-Based Procedural Content Generation, Computer-Aided Design

M.Sc., Information Technology, March 2011 GPA: 11.25 (7-step scale) [1]

- Study Programme: Media Technology and Games
- Specialty Line: Technology
- Thesis Topic: Optimizing Game Elements Based on Aesthetic and Performance Principles and Affected by Player Preferences
- Thesis Supervisor: Associate Professor Georgios N. Yannakakis

National Technical University of Athens, Athens, Greece

Diploma, Electrical and Computer Engineering, June 2007 GPA: 7.62 (10 scale) [2]

- Specialty Direction: Information Technology
- Thesis Topic: Human-Machine Interaction with a Focus on Character Animation
- Thesis Supervisor: Professor Stefanos Kollias

Positions

Senior Lecturer (October 2020 - Present), Institute of Digital Games, University of Malta, Msida, Malta.

Lecturer (October 2015 - September 2020), Institute of Digital Games, University of Malta, Msida, Malta.

Postdoctoral Fellow (September 2014 - September 2015), Institute of Digital Games, University of Malta, Msida, Malta.

Projects

Co-PI of the Horizon 2020 project PrismArch: Virtual reality aided design blending cross-disciplinary aspects of architecture in a multi-simulation environment (project no: 952002)

Co-PI of the Horizon 2020 project AI4Media: A European Excellence Centre for Media, Society and Democracy (project no: 951911)

Co-PI of the Horizon 2020 project CoM'n'Play-Science (project no: 787476)

Co-PI of the Horizon 2020 project ENVISAGE: ENhance VIrtual learning Spaces using Applied Gaming in Education (project no: 731900)

Co-PI of the Horizon 2020 project CrossCult: Empowering reuse of digital cultural heritage in context-aware crosscuts of European history (project no: 693150)

Affiliated with the FP7 Marie Curie CIG project AutoGameDesign: Autonomous Computational Game Designers - Transforming Exploration via Deep Learning, Novelty Search and Emotive Modelling (project no: 630665)

Research Support Officer with the Erasmus+ project LearnML: Learn to Machine Learn

[1] ECTS Equivalent: A (Excellent)
[2] ECTS Equivalent: B (Very Good)

Research Support Officer with the Erasmus+ project eCrisis: "Europe in Crisis"

Research Support Officer with the FP7 ICT project C2Learn: Creative Emotional Reasoning Computational Tools Fostering Co-Creativity in Learning Processes (project no: 318480)

Research Support Officer with the FP7 ICT project C2Learn: Creative Emotional Reasoning Computational Tools Fostering Co-Creativity in Learning Processes (project no: 318480)

Research Associate with the FP7 ICT project SIREN: Social games for conflIct REsolution based on natural iNteraction (project no: 258453)

Research Interests

Computer-aided design (AI-assisted design, mixed-initiative design, co-creativity)

Artificial intelligence (computational creativity, agent control, steering behaviors, reinforcement learning)

Procedural content generation (level generation, visual asset creation, digital aesthetics)

User modeling (designer modeling, player decision modeling, procedural personas)

Artificial evolution (neuroevolution, constrained optimization, novelty search, genetic algorithms)

Machine learning (neural networks, deep learning, gradient search)

Personal skills and competences

Languages: Greek (native), English (proficient), French (proficient), German (basic), Danish (beginner).

Computer Programming: C, C++, Java, C# / XNA, OpenGL, Actionscript 3, Pascal, Processing, Python, Prolog, Visual Basic, TorqueScript, VRML, Fortran, PHP, JavaScript, HTML.

Desktop Applications: Microsoft Office, Autodesk 3DS Max, Ulead Photoimpact, Adobe Illustrator, Adobe Flash, Adobe Photoshop, Mathworks Matlab.

Game Engines: Unreal Engine 3, Ogre SDK, Unity 3D, Torque Game Engine.

Publications (Summary)

101 publications, including:

- 3 book chapters
- 12 journal papers
- 63 conference papers
- 16 workshop papers
- 4 poster papers
- 2 press pieces

As of 1 January 2021, Google scholar appoints the following indices:

- Citations: 2132
- h-index: 25
- i10-index: 56

Publications (Book Chapters)

Antonios Liapis: "Artificial Intelligence for Designing Games," In The Handbook of Artificial Intelligence and the Arts, Penousal Machado, Juan Romero, and Gary Greenfield (Eds.). Springer, 2021. (in print)

Noor Shaker, Antonios Liapis, Julian Togelius, Ricardo Lopes and Rafael Bidarra: "Constructive Generation Methods for Dungeons and Levels," In Procedural Content Generation in Games: A Textbook and an Overview of Current Research, Noor Shaker, Julian Togelius and Mark J. Nelson (Eds.). Springer, 2016.

Antonios Liapis, Gillian Smith and Noor Shaker: "Mixed-initiative Content Creation," In Procedural Content Generation in Games: A Textbook and an Overview of Current Research, Noor Shaker, Julian Togelius and Mark J. Nelson (Eds.). Springer, 2016.

Publications (Journals)

David Melhart, Georgios N. Yannakakis and Antonios Liapis: "I Feel I Feel You: A Theory of Mind Experiment in Games," in Kunstliche Intelligenz, vol. 34, pp. 45–55. Springer, 2020.

Ahmed Dahroug, Andreas Vlachidis, Antonios Liapis, Antonis Bikakis, Martin Lopez-Nores, Owen Sacco and Jose Juan Pazos-Arias: "Using Dates as Contextual Information for Personalized Cultural Heritage Experiences," in SAGE Journal of Information Science, 2019 (accepted).

Daniel Karavolos, Antonios Liapis and Georgios N. Yannakakis: "A Multi-Faceted Surrogate Model for Search-based Procedural Content Generation," in Transactions on Games, 2019 (accepted).

Daniele Gravina, Antonios Liapis and Georgios N. Yannakakis: "Quality Diversity Through Surprise," in Transactions on Evolutionary Computation, 2019. (accepted)

Antonios Liapis, Georgios N. Yannakakis, Mark J. Nelson, Mike Preuss and Rafael Bidarra: "Orchestrating Game Generation," in Transactions on Games, 2019. (accepted)

Gabriella A. B. Barros, Michael Cerny Green, Antonios Liapis and Julian Togelius: "Who Killed Albert Einstein? From Open Data to Murder Mystery Games," IEEE Transactions on Games (accepted), 2018.

Christoffer Holmgard, Michael Cerny Green, Antonios Liapis and Julian Togelius: "Automated Playtesting with Procedural Personas through MCTS with Evolved Heuristics," IEEE Transactions on Games (accepted), 2018.

Phil Lopes, Antonios Liapis and Georgios N. Yannakakis: "Modelling Affect for Horror Soundscapes," IEEE Transactions of Affective Computing, 2017.

Antonios Liapis, Georgios N. Yannakakis, Constantine Alexopoulos and Phil Lopes: "Can Computers Foster Human Users' Creativity? Theory and Praxis of Mixed-Initiative Co-Creativity," Digital Culture & Education (DCE), 8 (2). 2016.

Christoffer Holmgard, Antonios Liapis, Julian Togelius Georgios N. Yannakakis: "Evolving Models of Player Decision Making: Personas versus Clones," Entertainment Computing. Elsevier Volume 16, 2016, pp. 95–104.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Constrained Novelty Search: A Study on Game Content Generation," Evolutionary Computation 21(1), 2015, pp. 101-129.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Adapting Models of Visual Aesthetics for Personalized Content Creation," IEEE Transactions on Computational Intelligence and AI in Games 4(3), 2012, pp. 213-228. Conference Papers

Publications (Conferences)

Konstantinos Sfikas and Antonios Liapis: "Collaborative Agent Gameplay in the Pandemic Board Game," in Proceedings of the Foundations of Digital Games Conference, 2020.

Kalliopi Kontiza, Antonios Liapis and Catherine Emma Jones: "Reliving the Experience of Visiting a Gallery: Methods for Evaluating Informal Learning in Games for Cultural Heritage," in Proceedings of the Foundations of Digital Games Conference, 2020.

Jean Michel A. Sarr, Georgios N. Yannakakis, Antonios Liapis, Alassane Bah and Christophe Cambier: "Djehuty: A Mixed-Initiative Handwriting Game for Preschoolers," in Proceedings of the Foundations of Digital Games Conference, 2020.

Johannes Pfau, Antonios Liapis, Georg Volkmar, Georgios N. Yannakakis and Rainer Malaka: "Dungeons & Replicants: Automated Game Balancing via Deep Player Behavior Modeling," in Proceedings of the IEEE Conference on Games, 2020.

Antonios Liapis, Daniele Gravina, Emil Kastbjerg and Georgios N. Yannakakis: "Modelling the Quality of Visual Creations in Iconoscope," in Proceedings of the 8th International Games and Learning Alliance Conference. Springer, 2019.

Stamatia Savvani and Antonios Liapis: "A Participatory Approach to Redesigning Games for Educational Purposes," in Proceedings of the 8th International Games and Learning Alliance Conference. Springer 2019. PDF BibTex

Konstantinos Makantasis, Antonios Liapis and Georgios N. Yannakakis: "From Pixels to Affect: A Study on Games and Player Experience," in Proceedings of the International Conference on Affective Computing and Intelligent Interaction, 2019.

David Melhart, Antonios Liapis and Georgios N. Yannakakis: "PAGAN: Video Affect Annotation Made Easy," in Proceedings of the International Conference on Affective Computing and Intelligent Interaction, 2019.

Elizabeth Camilleri, Georgios N. Yannakakis, David Melhart and Antonios Liapis: "PyPLT: Python Preference Learning Toolbox," in Proceedings of the International Conference on Affective Computing and Intelligent Interaction, 2019.

Daniele Gravina, Ahmed Khalifa, Antonios Liapis, Julian Togelius and Georgios N. Yannakakis: "Procedural Content Generation through Quality-Diversity," in Proceedings of the IEEE Conference on Games, 2019.

David Melhart, Ahmad Azadvar, Alessandro Canossa, Antonios Liapis and Georgios N. Yannakakis: "Your Gameplay Says It All: Modelling Motivation in Tom Clancy's The Division," in Proceedings of the IEEE Conference on Games, 2019.

Antonios Liapis: "The Newborn World: Guiding Creativity in a Competitive Storytelling Game," in Proceedings of the IEEE Conference on Games, 2019.

Antonios Liapis, Daniel Karavolos, Konstantinos Makantasis, Konstantinos Sfikas and Georgios N. Yannakakis: "Fusing Level and Ruleset Features for Multimodal Learning of Gameplay Outcomes," in Proceedings of the IEEE Conference on Games, 2019. PDF BibTex

Kalliopi Kontiza, Antonios Liapis and Joseph Padfield: "Capturing the Virtual Movement of Paintings: A Game and A Tool," in Proceedings of the Digital Heritage Conference, 2018.

Michael Cerny Green, Gabriella A. B. Barros, Antonios Liapis and Julian Togelius: "DATA Agent," in Proceedings of the 13th Conference on the Foundations of Digital Games, 2018.

Jichen Zhu, Antonios Liapis, Sebastian Risi, Rafael Bidarra and G. Michael Youngblood: "Explainable AI for Designers: A Human-Centered Perspective on Mixed-Initiative Co-Creation," in Proceedings of the IEEE Conference on Computational Intelligence and Games, 2018.

Daniel Karavolos, Antonios Liapis and Georgios N. Yannakakis: "Using a Surrogate Model of Gameplay for Automated Level Design," in Proceedings of the IEEE Conference on Computational Intelligence and Games, 2018.

Gabriella A. B. Barros, Michael Cerny Green, Antonios Liapis and Julian Togelius: "Data-driven Design: A Case for Maximalist Game Design," in Proceedings of the International Conference of Computational Creativity, 2018. [Runner-up Best Student Paper Award]

Daniele Gravina, Antonios Liapis and Georgios N. Yannakakis: "Fusing Novelty and Surprise for Evolving Robot Morphologies," in Proceedings of the Genetic and Evolutionary Computation Conference, 2018.

Antonios Liapis: "Piecemeal Evolution of a First Person Shooter Level," in Applications of Evolutionary Computation. Springer, 2018.

Antonios Liapis: "Recomposing the Pokémon Color Palette," in Applications of Evolutionary Computation. Springer, 2018.

Jakub Kowalski, Antonios Liapis, Lukasz Zarczynski: "Mapping Chess Aesthetics onto Procedurally Generated Chess-like Games," in Applications of Evolutionary Computation. Springer, 2018.

Phil Lopes, Georgios N. Yannakakis and Antonios Liapis "RankTrace: Relative and Unbounded Affect Annotation," In Proceedings of the International Conference on Affective Computing and Intelligent Interaction, 2017.

Elizabeth Camilleri, Georgios N. Yannakakis and Antonios Liapis "Towards General Models of Player Affect," In Proceedings of the International Conference on Affective Computing and Intelligent Interaction, 2017.

Owen Sacco, Antonios Liapis, and Georgios N. Yannakakis "Game Character Ontology (GCO): A Vocabulary for Extracting and Describing Game Character Information from Web Content," In Proceedings of the International Conference on Semantic Systems, 2017.

Daniele Gravina, Antonios Liapis and Georgios N. Yannakakis: "Coupling Novelty and Surprise for Evolutionary Divergence," In Proceedings of the Genetic and Evolutionary Computation Conference, 2017.

Antonios Liapis: "Multi-segment Evolution of Dungeon Game Levels," In Proceedings of the Genetic and Evolutionary Computation Conference, 2017. [Linked paper is adapted from the GECCO camera-ready for minor corrections]

Catherine Emma Jones, Antonios Liapis, Ioanna Lykourentzou, and Daniele Guido: "Board Game Prototyping to Co-Design a Better Location-Based Digital Game," In Proceedings of the CHI Conference Extended Abstracts on Human Factors in Computing Systems, 2017.

Antonios Liapis: "Mixed-initiative Creative Drawing with webIconoscope," In Proceedings of the 6th International Conference on Computational Intelligence in Music, Sound, Art and Design (EvoMusArt), vol. 10198, LNCS. Springer, 2017.

Owen Sacco, Antonios Liapis and Georgios N. Yannakakis: "A Holistic Approach for Semantic-Based Game Generation," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG). 2016.

Daniele Gravina, Antonios Liapis and Georgios N. Yannakakis: "Constrained Surprise Search for Content Generation," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG). 2016.

Daniel Karavolos, Antonios Liapis and Georgios N. Yannakakis: "Evolving Missions to Create Game Spaces," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG). 2016.

Georgios N. Yannakakis and Antonios Liapis: "Searching for Surprise," in Proceedings of the International Conference on Computational Creativity. 2016.

Phil Lopes, Antonios Liapis and Georgios N. Yannakakis: "Framing Tension for Game Generation," in Proceedings of the International Conference on Computational Creativity. 2016.

Gabriella A. B. Barros, Antonios Liapis and Julian Togelius: "Murder Mystery Generation from Open Data," in Proceedings of the International Conference on Computational Creativity. 2016.

Chong-U Lim, Antonios Liapis and D. Fox Harrell: "Discovering Social and Aesthetic Categories of Avatars: A Bottom-Up Artificial Intelligence Approach Using Image Clustering," in Proceedings of the International Joint Conference of DiGRA and FDG. 2016.

Gabriella A. B. Barros, Antonios Liapis and Julian Togelius: "Playing with Data: Procedural Generation of Adventures from Open Data," in Proceedings of the International Joint Conference of DiGRA and FDG. 2016.

Daniele Gravina, Antonios Liapis and Georgios N. Yannakakis: "Surprise Search: Beyond Objectives and Novelty," in Proceedings of the Genetic and Evolutionary Computation Conference. ACM, 2016.

Antonios Liapis: "Exploring the Visual Styles of Arcade Game Assets," in Proceedings of Evolutionary and Biologically Inspired Music, Sound, Art and Design (EvoMusArt). Springer, 2016.

Phil Lopes, Antonios Liapis, Georgios N Yannakakis: "Targeting Horror via Level and Soundscape Generation," in Proceedings of the AAAI Artificial Intelligence for Interactive Digital Entertainment Conference, 2015.

Antonios Liapis, Georgios N. Yannakakis: "Refining the Paradigm of Sketching in AI-Based Level Design," in Proceedings of the AAAI Artificial Intelligence for Interactive Digital Entertainment Conference, 2015.

William Cachia, Antonios Liapis, Georgios N. Yannakakis: "Multi-Level Evolution of Shooter Levels," in Proceedings of the AAAI Artificial Intelligence for Interactive Digital Entertainment Conference, 2015.

Antonios Liapis, Amy K. Hoover, Georgios N. Yannakakis, Constantine Alexopoulos, Evangelia V. Dimaraki: "Motivating Visual Interpretations in Iconoscope: Designing a Game for Fostering Creativity," in Proceedings of the 10th Conference on the Foundations of Digital Games, 2015.

Antonios Liapis, Christoffer Holmgard, Georgios N. Yannakakis, Julian Togelius: "Procedural Personas as Critics for Dungeon Generation," in Applications of Evolutionary Computation, vol. 9028, LNCS. Springer, 2015. [Best Paper Award of the EvoGAMES track]

Jinhong Zhang, Rasmus Taarnby, Antonios Liapis, Sebastian Risi: "DrawCompileEvolve: Sparking Interactive Evolutionary Art with Human Creations," in Evolutionary and Biologically Inspired Music, Sound, Art and Design (EvoMusArt), vol. 9027, LNCS. Springer, 2015.

Amy K. Hoover, William Cachia, Antonios Liapis, Georgios N. Yannakakis: "AudioInSpace: Exploring the Creative Fusion of Generative Audio, Visuals and Gameplay," in Evolutionary and Biologically Inspired Music, Sound, Art and Design (EvoMusArt), vol. 9027, LNCS. Springer, 2015.

Christoffer Holmgard, Antonios Liapis, Julian Togelius, Georgios N. Yannakakis: "Personas versus Clones for Player Decision Modeling," in Proceedings of the International Conference on Entertainment Computing (ICEC), 2014.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Designer Modeling for Sentient Sketchbook," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG), 2014. [Best Paper Award]

Mike Preuss, Antonios Liapis, Julian Togelius: "Searching for Good and Diverse Game Levels," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG), 2014. [Nominated for Best Paper Award]

Christoffer Holmgard, Antonios Liapis, Julian Togelius, Georgios N. Yannakakis: "Evolving Personas for Player Decision Modeling," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG), 2014.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Computational Game Creativity," in Proceedings of the Fifth International Conference on Computational Creativity, 2014.

Georgios N. Yannakakis, Antonios Liapis, Constantine Alexopoulos: "Mixed-Initiative Co-Creativity," in Proceedings of the 9th Conference on the Foundations of Digital Games, 2014.

Christoffer Holmgard, Antonios Liapis, Julian Togelius, Georgios N. Yannakakis: "Generative Agents for Player Decision Modeling in Games," in Poster Proceedings of the 9th Conference on the Foundations of Digital Games, 2014.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Towards a Generic Method of Evaluating Game Levels," in Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment, 2013. [Best Student Paper Award]

Antonios Liapis, Hector P. Martinez, Julian Togelius, Georgios N. Yannakakis: "Adaptive Game Level Creation through Rank-based Interactive Evolution," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG), 2013. [Nominated for Best Paper Award]

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Enhancements to Constrained Novelty Search: Two-Population Novelty Search for Generating Game Content," in Proceedings of the Genetic and Evolutionary Competition Conference, 2013, pp. 343-350. [Best Paper Award of the DETA/Self* track]

Antonios Liapis, Hector P. Martinez, Julian Togelius, Georgios N. Yannakakis: "Transforming Exploratory Creativity with DeLeNoX," in Proceedings of the Fourth International Conference on Computational Creativity, 2013, pp. 56-63.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Sentient Sketchbook: Computer-Aided Game Level Authoring," in Proceedings of the 8th Conference on the Foundations of Digital Games, 2013, pp. 213-220.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Sentient World: Human-Based Procedural Cartography," in Proceedings of Evolutionary and Biologically Inspired Music, Sound, Art and Design (EvoMusArt), vol. 7834, LNCS. Springer, 2013, pp. 180-191.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Generating Map Sketches for Strategy Games," in Proceedings of Applications of Evolutionary Computation, vol. 7835, LNCS. Springer, 2013, pp. 264-273. [Linked paper is adapted from the Evo* camera-ready for minor corrections]

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Optimizing Visual Properties of Game Content through Neuroevolution," in Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment, 2011.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Neuroevolutionary Constrained Optimization for Content Creation," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG), 2011, pp. 71-78.

Publications (Workshops)

Antonios Liapis: "10 Years of the PCG workshop: Past and Future Trends," in Proceedings of the FDG Workshop on Procedural Content Generation, 2020.

Matthew Guzdial, Devi Acharya, Max Kreminski, Michael Cook, Mirjam Eladhari, Antonios Liapis and Anne Sullivan: "Tabletop Roleplaying Games as Procedural Content Generators," in Proceedings of the FDG Workshop on Procedural Content Generation, 2020.

Michael Cerny Green, Ahmed Khalifa, Athoug Alsoughayer, Divyesh Surana, Antonios Liapis and Julian Togelius: "Two-step Constructive Approaches for Dungeon Generation," in Proceedings of the FDG Workshop on Procedural Content Generation, 2019.

Daniel Karavolos, Antonios Liapis and Georgios N. Yannakakis: "Pairing Character Classes in a Deathmatch Shooter Game via a Deep-Learning Surrogate Model," in Proceedings of the FDG Workshop on Procedural Content Generation, 2018.

David Melhart, Konstantinos Sfikas, Giorgos Giannakakis, Georgios N. Yannakakis and Antonios Liapis: "A Study on Affect Model Validity: Nominal vs Ordinal Labels," in Proceedings of the IJCAI workshop on AI and Affective Computing, 2018.

Daniel Karavolos, Antonios Liapis and Georgios N. Yannakakis: "Learning the Patterns of Balance in a Multi-Player Shooter Game," In Proceedings of the FDG workshop on Procedural Content Generation in Games, 2017.

Antonios Liapis and Georgios N. Yannakakis: "Boosting Computational Creativity with Human Interaction in Mixed-Initiative Co-Creation Tasks," in Proceedings of the ICCC workshop on Computational Creativity and Games. 2016.

Christoffer Holmgard, Antonios Liapis, Julian Togelius, Georgios N. Yannakakis: "Monte-Carlo Tree Search for Persona Based Player Modeling," in Proceedings of the AIIDE workshop on Player Modeling, 2015.

Antonios Liapis: "Map Sketch Generation as a Service," in Proceedings of the AIIDE workshop on Experimental AI in Games, 2015.

Phil Lopes, Antonios Liapis, Georgios N Yannakakis: "Sonancia: Sonification of Procedurally Generated Game Levels," in Proceedings of the ICCC workshop on Computational Creativity & Games, 2015.

Ryan Abela, Antonios Liapis, Georgios N. Yannakakis: "A Constructive Approach for the Generation of Underwater Environments," in Proceedings of the FDG workshop on Procedural Content Generation in Games, 2015.

Gabriella A. B. Barros, Antonios Liapis, Julian Togelius: "Data Adventures," in Proceedings of the FDG workshop on Procedural Content Generation in Games, 2015.

Sebastian Risi, Jinhong Zhang, Rasmus Taarnby, Peter Greve, Jan Piskur, Antonios Liapis and Julian Togelius: "The Case for a Mixed-Initiative Collaborative Neuroevolution Approach," in Proceedings of the ALIFE workshop on Artificial Life and the Web, 2014.

Julian Togelius, Mark J. Nelson, Antonios Liapis: "Characteristics of Generatable Games," in Proceedings of the FDG Workshop on Procedural Content Generation, 2014.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Designer Modeling for Personalized Game Content Creation Tools," in Proceedings of the AIIDE Workshop on Artificial Intelligence & Game Aesthetics, 2013.

Antonios Liapis, Georgios N. Yannakakis, Julian Togelius: "Limitations of Choice-Based Interactive Evolution for Game Level Design," in Proceedings of the AIIDE Workshop on Human Computation in Digital Entertainment, 2012.

Publications (Selected Posters)

Daniele Gravina, Antonios Liapis, Georgios N. Yannakakis: "Blending Notions of Diversity for MAP-Elites," in Proceedings of the Genetic and Evolutionary Computation Conference, 2019.

Daniele Gravina, Antonios Liapis and Georgios N. Yannakakis: "Exploring Divergence in Soft Robot Evolution," In Proceedings of the Genetic and Evolutionary Computation Conference, 2017.

Phil Lopes, Antonios Liapis and Georgios N. Yannakakis: "Sonancia: a Multi-Faceted Generator for Horror," in Proceedings of the IEEE Conference on Computational Intelligence and Games (CIG). 2016.

Christoffer Holmgard, Antonios Liapis, Julian Togelius and Georgios N. Yannakakis: "MiniDungeons 2: An Experimental Game for Capturing and Modeling Player Decisions," in Proceedings of the 10th Conference on the Foundations of Digital Games. 2015.

Awards

Nominated for Best Paper Award at the Conference on Games for the paper "Dungeons & Replicants: Automated Game Balancing via Deep Player Behavior Modeling", 2020.

Runner-up Best Student Paper Award at the International Conference of Computational Creativity for the paper "Data-driven Design: A Case for Maximalist Game Design", 2018.

Best Reviewer Award at the Artificial Intelligence and Interactive Digital Entertainment conference, 2015.

Best Paper Award at the European Conference on the Applications of Evolutionary Computation [EvoGames track] for the paper "Procedural Personas as Critics for Dungeon Generation", 2015.

Best Paper Award at the Computational Intelligence and Games conference for the paper "Designer Modeling for Sentient Sketchbook", 2014.

Nominated for Best Paper Award at the Computational Intelligence and Games conference for the papers"Searching for Good and Diverse Game Levels", 2014.

Best Student Paper Award at the Artificial Intelligence and Interactive Digital Entertainment conference for the paper "Towards a Generic Method of Evaluating Game Levels", 2013.

Best Paper Award at the Genetic and Evolutionary Computation Conference [DETA/Self* track] for the paper "Enhancements to Constrained Novelty Search: Two-Population Novelty Search for Generating Game Content", 2013.

Nominated for Best Paper Award at the Computational Intelligence and Games conference for the paper "Adaptive Game Level Creation through Rank-based Interactive Evolution", 2013.

European Learning Game of 2013 award: SIREN (Social games for conflIct REsolution based on natural iNteraction). Games and Learning Alliance Network of Excellence, 2013.

Make Something Unreal competition, 2009.

- Educational Category: **1st Place** (IT University of Copenhagen, contribution from The Witching Hour).
- Best FPS Mod: Finalist (project: The Witching Hour).
- Best Level for a Mod: Honorable Mention (project: The Witching Hour).

Teaching Experience

IT University of Copenhagen, Copenhagen, Denmark

Guest Lecturer: Procedural Content Generation	**Fall 2014**
Guest Lecturer: Procedural Content Generation	**Fall 2013**
Co-lecturer: Modern AI for Games	**Fall 2012**
Co-lecturer: Advanced Topics in Game Technology	**Fall 2012**
Co-lecturer: Modern AI for Games	**Fall 2011**
Co-lecturer: Procedural Content Generation	**Fall 2011**
Teaching Assistant: Modern AI for Games	**Fall 2010**

Co-supervisor of 3 M.Sc. Theses (Andrea Distler, Konstantinos Kontostathis, Jinhong Zhang & Rasmus Enemark Taarnby).

Co-supervisor of 2 small projects (Konstantinos Kontostathis, Lasse Jørgensen).

University of Malta, Msida, Malta

Lecturer: Designing Gameworlds	**Fall 2019-Present**
Lecturer: Prototyping for Game Designers	**Fall 2014-2019**
Lecturer: Computational Game Creativity	**Spring 2015-Present**
Co-lecturer: Game Development	**Spring 2015-Present**
Co-lecturer: Affective Computing and Player Experience	**Spring 2017**
Co-lecturer: Data Mining and Game Analytics	**Spring 2017**
Guest Lecturer: Game AI Revisited	**Spring 2014-2015**
Guest Lecturer: Advanced Game AI (BSc level)	**Fall 2014**
Guest Lecturer: Game Technology	**Fall 2012**
Lecturer: Designing Gameworlds	**Fall 2019**

Supervisor of 9 M.Sc. Theses (Ioannis Brellas, Alexander Amato-Gauchi, Eduardo Moyron Candela, Jeremy Grech, Panagiotis Migkotzidis, Konstantinos Sfikas, Daniel Vella, Casper Boserup, Edward Bambler), co-supervisor of 1 B.Sc. Thesis (Georgi Beshovski).

Reviewer

Reviewer for the following journals: IEEE Transactions on Systems, Man, and Cybernetics; IEEE Transactions on Evolutionary Computation; IEEE Transactions on Computational Intelligence and Games; IEEE Transactions on Games; IEEE Transactions on Human-Machine Systems; Neural Computing and Applications; Memetic Computing; User Modeling and User-Adapted Interaction; Genetic Programming and Evolvable Machines; Journal on Computing and Cultural Heritage; Artificial Intelligence Journal; Entertainment Computing; Signal, Image and Video Processing.

Member of the Program Committee for AI and Interactive Digital Entertainment (2014-present); Foundations of Digital Games (2014-present); IEEE Conference on Games (2019-present); IEEE Conference on Computational Intelligence and Games (2013-2019); ACM Genetic and Evolutionary Computation Conference (2014-present); International Conference on Computational Creativity (2015-present); International Conference on Evolutionary and Biologically Inspired Music, Sound, Art and Design (2014-present); Computer Science and Electronic Engineering Conference (2015-2016).

Organizational Activities

Member of the Games Technical Committee of the IEEE Computational Intelligence Society.

Guest editor of the special issue on Culture Games in ACM Journal on Computing and Cultural Heritage.

Guest editor of the special issue on AI-based and AI-assisted Game Design in IEEE Transactions on Computational Intelligence and Games.

Guest editor of the special issue on GaLA Conf 2019 in International Journal of Serious Games.

Guest editor of the special issue on Computer Aided Game and Puzzle Design in International Computer Games Association Journal.

Competition Chair of the 2021 IEEE Conference on Games (17-20 August 2021, Copenhagen, Denmark)

General Chair of the 2020 International Conference on the Foundations of Digital Games (15-18 September 2020, Bugibba, Malta)

General Chair of the 2019 Games and Learning Alliance Conference (27-29 November 2019, Athens, Greece)

Track Chair, Demos Chair of the 2019 IEEE Conference on Games (20-23 August 2019, London, UK)

General Chair of the 2019 EvoMusArt (24-26 April 2019, Leipzig, Germany)

General Chair of the 2018 EvoMusArt (4-6 April 2018, Parma, Italy)

Proceedings Chair of the 2017 EvoMusArt (19-21 April 2017, Amsterdam, Netherlands)

Local Chair of the 2016 IEEE Conference on Computational Intelligence and Games (20-23 September 2016, Santorini, Greece)

Workshop Organization:

- 2020 Workshop on Invisible AI-driven HCI Systems (25-26 October 2020, Tallinn, Estonia)
- 2019 Workshop on Tabletop Games (26 August 2019, San Luis Obispo, USA)
- 2019 Workshop on Computational Creativity and Deep Generative Design: Bridging the Gap (17-18 June 2019, Charlotte, USA)
- 2018 Workshop on Tabletop Games (7 August 2018, Malmö, Sweden)
- 2017 workshop on Tracing the Boundaries of Games as Research Environments (14 August 2017, Cape Cod, USA)
- 2017 Workshop on Mixed-Initiative Creative Interfaces (7 May 2017, Colorado, USA)
- 2016 Workshop on Experimental AI in Games (8-9 October 2016, Burlingame, USA)
- 2016 Workshop on Computational Creativity and Games (27 June 2016, Paris, France)
- 2015 Workshop on Experimental AI in Games (14-15 November 2015, Santa Cruz, USA)
- 2015 Workshop on Experimental AI in Games (23 June 2015, Asilomar, USA)
- 2013 Workshop on Artificial Intelligence and Game Aesthetics (14 October 2013, Boston, USA)

Armed Service

Mandatory armed service has been fulfilled (Febrary 2008).

Other Services

Local organizer of the Global Game Jam Malta (2014-Present) and the Mediterranean Game Jam (2015).

Intro guide for new students in the Media Technology and Games program (2010).

Participant in the Nordic Game Jam (2009 and 2010) and Global Game Jam Malta (2016).

References

Available upon request.