



## / 2023-2024 Midterm Report

/ write me a poem for the eGames Lab Research  
Midterm Report

In the heart of digital realms, we venture forth,  
Where pixels pulse with vibrant worth,  
At eGames Lab, the code we weave,  
Crafting dreams, as we believe.

From virtual fields where heroes stride,  
To puzzles where our wits collide,  
We sculpt the worlds where gamers play,  
Bringing night to dazzling day.

Here, in this forge of cyber art,  
We bind the mind, the soul, the heart,  
With every line of code we write,  
We light the screens, ignite the night.

Adventurers, dreamers, gather near,  
In this realm, no fear, just cheer,  
For eGames Lab, where visions spark,  
Guiding us through the digital dark.

So come, explore, create, and see,  
The magic of our digital spree,  
In eGames Lab, we shape the new,  
A universe, for me, for you.



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*Consortium companies presenting to eGames Lab researchers @ Funchal during one of our LevelUp! monthly events.*

*(Dec.23)*



# Foreword

/ **Professor Pedro Campos**  
Scientific Director eGames Lab



Since the creation of the eGames Lab - the largest R&D project in Madeira and one of the largest in the country - our team has faced many challenges and pushed the limits to implement the seeds of a new beginning, creating new talent, providing opportunities, attracting talent and crafting new research projects in a unique multidisciplinary approach, in a country-wide research ecosystem.

From Madeira to Évora, Lisbon and the Azores, the eGames Lab was able to open and fulfill new R&D positions, more than 50. From post-doctoral to doctoral and masters students, those positions cover areas such as informatics, psychology, design, narrative and physical sciences.

The challenge is made even bigger by working side-by-side with industry leaders within the videogame development scene, in Portugal. The recognition is immense.

This year marked the establishment of new R&D infrastructures in Funchal, Lisbon and Évora, providing all the conditions for our fresh new team of international researchers to perform at their best, advancing the state of the art and exploring new frontiers.

The beauty of the videogaming is the ability to bring together people and research from so many different areas and backgrounds, because videogame is a cultural mean that connects people by itself, providing new experiences and “playing” with so many forms of art.

The game has just started. Many levels are upcoming. Come play with us.



# The eGames Lab

Electronic Games (eGames) exhibit the potential to transform our world by channeling our imagination and our understanding of reality. In a global economy torn by the pandemic and threatened by new belligerence, eGames have kept us continually connected, sharing experiences, enabling positive behavior change, and teaching us more about history, climate change, humanities, and arts.

This vision of transformational games as the new default entertainment medium of our millennium has driven this consortium to establish a new national cluster for truly developing a much-longed eGames industry in Portugal.

From an economic perspective, the eGames industry is booming. In recent years, it has experienced outstanding growth. More than 2.5 billion people worldwide play games regularly. Sony Interactive Entertainment's estimated value is \$13.4 billion. Annual global gaming revenue will exceed \$200 billion by 2023, which is more than worldwide film box office earnings, music streaming, and album sales, as well as the top five wealthiest sports leagues, combined.

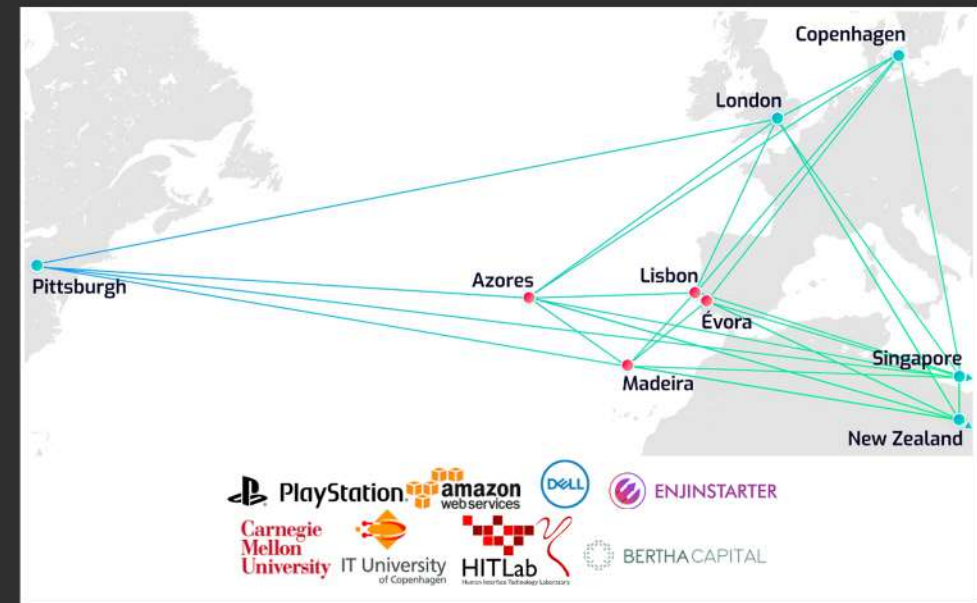
However, in Portugal, this sector has been known for its fragmentation and difficulty in leveraging despite the great potential and highly-skilled human resources. Therefore, the eGames Lab aims to address technological specific and operational challenges identified in Portugal, which will leverage the competitiveness of the members and position them in a worldwide context.

Covering the country from Évora to Lisbon, Madeira, and the Azores, the project will diversify the Portuguese economic fabric that is heavily dependent on a single industry (tourism), thereby increasing the country's competitiveness in IT and Web 3.0 industries.

The eGames Lab aims to build capacity for retaining in the country a young, well-trained generation of different backgrounds: design, storytelling, engineering, marketing, and fine arts. It will also attract key stakeholders to Portugal and create a long-lasting sustainable ecosystem for game design and development, playtesting, and successfully bringing to market the results from creative research and development efforts in interactive entertainment.

The eGames Lab is a national cluster established in Portugal (Madeira, Azores, Lisbon, and Évora) funded under the Covid19 UE funding scheme - Recovery and Resilience Plan (PRR) after a very competitive two-phase call that brought the main companies and R&D institutes in the country. The international jury claimed the eGames Lab ranking it #2 in more than 164 proposals.

With close ties and cooperation with Carnegie-Mellon University in Pittsburgh (USA), and AmazonWebServices (AWS) GameTech in London (UK) as well as with industry players and consultants from games hub in Copenhagen (Denmark), the consortium has formal support from major industry leaders, such as Sony Playstation, Dell's Alienware and Singapore's EnjinStarter Launchpad. The consortium will also work with the prestigious University of Canterbury (New Zealand) and the famous HitLab NZ.



*The global reach of the eGames Lab*



The eGames Lab represents a total investment of 29.991.847,46€ from which 20.181.482,23€ are allocated to Research and Development (R&D), making this - by far - the largest R&D project and Lab in Madeira Islands and one of the largest in the country as well as one of the largest gaming labs in the world.

The true backbone for the project are the R&D activities. The eGames Lab aims to transfer R&D TRL 3-4 to TRL 5-7, given that the scientific focus is placed on the continuity of the efforts made during the international partnerships of the Portuguese academy with the North American University of Carnegie-Mellon as well as with the other international associated partners (HitLab New Zealand and IT Copenhagen University) and by the companies which have on-going research in these fields.

This Annual Report focuses on the R&D, therefore, we highlight the Products, Processes and Services (PPS) that the eGamesLab generates from those activities:

/ PPS1 : **Blockchain Technologies and Economics**

/ PPS2 : **Advanced in-Game Virtual and Augmented Reality**

/ PPS3 : **Transformational Games for Health and the Green Agenda**

/ PPS4 : **Artificial Intelligence for Interactive Storytelling**

/ PPS5 : **Pre-Market Ecosystems and Network Optimization**

/ PPS6 : **Process-Innovation in Game Design and Development**





# Mission

The eGames Lab aims to add national value, providing the necessary working conditions for the research, development and specialization of the video game development sector and associated creative industries, providing a robust common framework and support network to help it reach the latent potential that exists in the area and global success with commercial exploitation.

Also, as this is an area that is in itself very appealing to young people and recent graduates, our mission is also to retain highly qualified staff in this industry in Portugal, increasing the return on investment made by the Portuguese Government over the years in the areas of higher education, innovation, and scientific research.

The eGames Lab is based on strong synergies between partners and multidisciplinary teams. During integration and testing efforts of the tech, algorithms, equipment, and developed games there are many synergies that emerge from the different efforts in the WPs. Therefore, our mission also aims to create an open and organic community in which the Consortium members can collaborate freely but always keeping their commercial interest autonomous and their scientific and creativity spinning free, starting with well-defined collaborative R&D activities (from TRL3-4 up to TRL5-7) which are incorporated by end-users of the Consortium in their PPS developments.

There are transversal activities such as training and knowledge transfer and all members can benefit from the Innovation Centers available for hands-on testing, acceleration programs, physical working space, and access to top equipment. A true ecosystem which will help enhance research, development and market reach.

The Consortium encompasses a set of scientific and technological skills and guarantees the participation of co-promoters from several backgrounds and regions that will ensure the necessary mechanisms and procedures for an effective transfer and exploitation of the outcomes of the project.

/ **Increasing R&D activities and know-how transfer between Universities, R&D Centers, and the Industry**, leading to more competitive businesses and products and raising awareness of the importance of innovation processes within the value chains;

/ **Strategic placement of Portugal as a world-leading egames and creative industries player**. The eGames Lab includes support activities, space, labs, product promotion and R&D capacity;

/ **Specialization of the involved SMEs** as they move from providing third-party services on daily basis and focus more on developing egames and complementary services, creating added value internally, and increasing know-how and experience in this sector and incorporating R&D advances and benefits;

/ **Increase job creation in low-density and peripheral regions**, while bringing support from worldwide gaming brands - Playstation and Amazon;

/ **Return-on-Investment made by Portugal on higher education programs, international partnerships as well as R&D projects and grants**, retaining talent and graduates in the country and attracting foreign HR, boosting new startups and job creation;

/ **Increase exports from the country**, generating added value and revenue, that will turn into new job creation, new opportunities, and a snowball effect for boosting the country's ICT and creative industries;

A real game-changer in which R&D is the main player.

# Structure & Numbers

The eGames Lab brings together 22 private and public entities. As this report focuses on the Research Activities of the project and the Labs, below we describe how we have structured the eGames Lab to work as a proefficient, open-minded and collaborative structure that provides the needed infrastructure and resources to all members and team thus stimulating know-how transfer, collaboration between academia and the industry.

## / the eGames Lab Agenda

### / COMPANIES

### / OTHER PUBLIC & PRIVATE ENTITIES

### / RESEARCH CENTRES

#### / Support units

Scientific Board & Research Supervisors  
Provisioning  
Administrative  
Communications, Events & Outreach

#### / Scientific Areas

Human-Computer Interaction  
Virtual Reality  
Augmented Reality  
Blockchain Technology in Gaming  
Artificial Intelligence for Storytelling

### / madeira

### / lisbon

### / Évora

### / scientific board

#### Diretor:

Prof. Pedro Campos (UMa)

#### Board:

Prof. Augusto Esteves (IST)  
Prof. Élvio Rúbio (UMa)  
Prof. Nuno J. Nunes (IST)  
Prof. Valentina Nisa (IST)  
Prof. Somoudip Sarkar (U.Évora)

### / supervisors

Prof. Vanessa Cesário (IST)  
Prof. Paulo Bala (IST)  
Phd. Lucas Pereira (IST)  
Prof. Mara Dionísio (UMa)  
Prof. Frederica Gonçalves (UMa)  
Prof. Hugo Nicolau (IST)  
Prof. Patrícia Gouveia (U.Lisboa)

### / researchers

Adrian Valencia  
Ana Pires  
Anna Jiskrová  
Anna Unterholzner  
Ana Saial  
Ana Santos  
Andrés Isaza  
Carolina Luís  
Catarina Santos Faria  
Christopher Powell  
Cíntia França  
Cristiano França  
Diogo Martinho  
Diogo Santos  
Elton Camacho  
Eva Freitas  
Filipe Tomé  
Francisco Oliveira  
Francisco Santos  
Francisco Vasconcelos  
Genesis Bettencourt  
Gonçalo Castanha  
Harti Júnior  
Hildegardo Noronha  
Ivo Roupá  
João Martins  
José Pedro Sousa  
Joana Spínola  
Laís Lopes  
Lara Freitas  
Laura Santos  
Lina Catanho  
Luís Fernandes  
Lorena Lomba  
Mariana Fernandes  
Noha Al-Moshneb  
Patrícia Piedade  
Sandra Olim  
Soraia Paulo  
Terhi Marttila  
Thaís Weiller  
Yanick Trindade

### / support staff

Alice Merkens (Évora)  
Dina Amaro (Lisbon)  
Elma Rodrigues (Funchal)  
Merícia Rodrigues (Funchal)  
Susana Nóbrega (Lisbon)



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### / Scientific Areas

Human-Computer Interaction  
Virtual Reality  
Augmented Reality  
Blockchain Technology in Gaming  
Artificial Intelligence for Storytelling

/ madeira

/ lisbon

/ Évora

## 9 Nationalities



Portugal, Brazil, Canada, Colombia, Czech Republic, Finland, Germany, Italy and Venezuela

12 Post-doc

18 PhD.

14 Msc.

4 Bsc.



# Évora Facilities

Immersive rooms

Virtual reality equipments

Augmented reality equipments

Labs & Office space





# Funchal Facilities

Motion capture suits

VR threadmills

VR equipments

Co-working rooms & meeting room

Lab space

Auditorium





INTERACTIVE  
TECHNOLOGIES  
INSTITUTE

IST-ID

Associação do Instituto Superior Técnico  
para a Investigação e Desenvolvimento

# Lisbon Facilities

Co-working rooms & office space

Meeting rooms

Lab space

Auditorium





# Ongoing research

Ongoing work has been mostly structured around the major pillars of the eGamesLab original proposal:

- Interactive Storytelling;
- Process Innovation;
- VR for Health and Wellbeing;
- and Transformational Games.

The unique synergies obtained by this melting pot of people with so diverse backgrounds has been materialized in different initiatives that are now being combined together. For instance, the effects of observing robotic ostracism on children's prosociality and basic needs, lead to PartiPlay, A Participatory Game Design Kit for Neurodiverse Classrooms.

Another impact area is climate change. Based on a systematic literature review about estimated energy expenditure in youth while playing active video games, we proposed Prompt-Gaming: A Pilot Study on LLM-Evaluating Agent in a Meaningful Energy Game.

We also worked on the development and pilot evaluation of a serious puzzle game prototype to enhance financial literacy among young adults. The pilot evaluation (N=7) explores various game mechanics to deliver engaging financial education. Initial findings indicate promising potential for serious puzzle games in facilitating financial literacy. The research aims to contribute insights into pedagogical strategies and game design enhancements, fostering informed decision-making and economic stability among young adults.

Periodic Fable in the Wild is a gamified experience that aims to contextualise basic concepts about the Periodic Table and organic chemistry through Augmented Reality, gamification and mechanisms that integrate real-world compounds/objects within the system. The app uses a pedagogical situated learning approach allowing preteens (9 to 13 year-old) to explore physical spaces, gather atoms, and recreate chemical compounds while interacting with molecular structures.

By adapting the learning content to the user's real-world context, we aim to enhance knowledge transfer, making the experience more meaningful, relatable, and engaging. VR and Health has also been addressed by many papers and researchers in the eGamesLab. For instance, CBT-Darts, an immersive VR game where players match statements to cognitive distortions by throwing darts at balloons.

By mixing a physical and cognitive task, we create an engaging and fun way to teach how to identify cognitive distortions.

In collaboration with the local Food Bank, we identified that food waste reduction should be approached early on and that food waste awareness should not be introduced to children the same way as to adults. So new approaches should be developed to engage younger audiences with food waste reduction. Based on the potential that games have to engage children, we designed a game targeting children ages eight to twelve years old to raise awareness about some of the best practices for food waste reduction in household consumers.

It is encouraging to note A/A\* conference papers and Q1 journal papers stemming from MSc-level researchers. Future work includes studies about process innovation in game design and development, transformational games and AI/LLM-based work that can be applied in different contexts.

# Publications\_

During the 2023-2024 midterm, the eGames Lab published numerous works highlighting advancements in both fundamental and industrial research topics. These publications span a wide array of fields, including AI, fine arts, psychology, and more. These achievements are the result of collaborative efforts between academics and companies involved in the eGames Lab project. The selected publications below offer a comprehensive overview of our extensive research spectrum.

## / **Prompt-Gaming: A Pilot Study on LLM-Evaluating Agent in a Meaningful Energy Game**

Isaza-Giraldo, A., Bala, P., Campos, P., Pereira, L.

In: Prompt-Gaming: A Pilot Study on LLM-Evaluating Agent in a Meaningful Energy Game. In Extended Abstracts of the 2024 CHI Conference on Human Factors in Computing Systems (CHI EA '24)

<https://doi.org/10.1145/3613905.3650774>

## / **PartiPlay: A Participatory Game Design Kit for Neurodiverse Classrooms**

In: The 25th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '23), October 22-25, 2023, New York, NY, USA. ACM,

DOI: <https://doi.org/10.1145/3597638.3614496>

## / **"I Miss Going to that Place": The Impact of Watching Nature Videos on the Well-Being of Informal Caregivers**

Peres, B., Noronha, H., Lopes, D., Joaquim, J., Campos, P.

In: Proceedings of INTERACT 2023

DOI: [http://dx.doi.org/10.1007/978-3-031-42293-5\\_2](http://dx.doi.org/10.1007/978-3-031-42293-5_2)

## / **Coding with Colors: Children's Errors Committed While Programming Robotito for the First Time**

Bakala E, Pires A., Luz M., Pascale M., Tejera G. and Hourcade J.

In: INTERACT 2023: Human-Computer Interaction

[https://doi.org/10.1007/978-3-031-42293-5\\_50](https://doi.org/10.1007/978-3-031-42293-5_50)

## / **Game ON! A Gamified Approach to Household Food Waste Reduction**

Olim, S., Campos, P., Vasconcelos F., Dionísio, M.

In: ICEC2023 Bologna

DOI: [http://dx.doi.org/10.1007/978-981-99-8248-6\\_11](http://dx.doi.org/10.1007/978-981-99-8248-6_11)

## / **"That's our game!": Reflections on Co-designing a Robotic Game with Neurodiverse Children**

Neto, I., Pires, A., Prada, R., Nicolau, H.

INTERACT'23 Workshop - Designing Technology for Neurodivergent Self-Determination: Challenges and Opportunities

<https://doi.org/10.48550/arXiv.2404.11252>

## / **Financial DreamScape: Puzzle Narrative Games for Financial Education**

Santos, A. Freitas, C., Bala, P., Campos, P., Dionísio.

In: Interactive Media Experiences (IMX 2024)

DOI: <https://doi.org/10.1145/3639701.3663647>

## / **Memory Void: Digital Games Preservation in Portugal**

Lima., L. , Mota, A.

In: Acoustics, Speech, and Signal Processing Newsletter, IEEE

DOI: [http://dx.doi.org/10.5753/sbgames\\_estendido.2023.235624](http://dx.doi.org/10.5753/sbgames_estendido.2023.235624)

## / **Inclusion as a Process: Co-Designing an Inclusive Robotic Game with Neurodiverse Classrooms**

Piedade, P., Neto, I., Pires, A. Prada, R., Nicolau, H.

In: Proceedings of ASSETS'24

## / **TACTOPI: Exploring Play with an Inclusive Multisensory Environment for Children with Mixed-Visual Abilities**

Pires, A., Abreu, L., Rocha, F., Simão, H., Guerreiro, H., Nicolau, H., Guerreiro, T.

In: IDC '23: Interaction Design and Children

DOI: <http://dx.doi.org/10.1145/3585088.3589389>



### **/ Home Computing and Digital Game Piracy in the 1980s in Portugal**

Lima, L, Pinto, C., Martilla, T., Gouveia, P.  
In: Proceedings of DIGRA 2023. Sevilla June 2023.  
DOI: <http://dx.doi.org/10.13140/RG.2.2.13915.13607>

### **/ Emerging Technologies to Promote Fans Interaction in Football Events: A Systematic Review**

Martins, F., França, C., Paixão, P., Martinho, D., Campos, P., Gouveia, B., Lopes, H., Ihle, A., Marques, E., Gouveia, E.  
In: Advances in Human-Computer Interaction  
DOI: <https://doi.org/10.1155/2023/6667260>

### **/ Hacking the Good Life**

Martilla, T., Celeste, P., Simões, S.  
In: The digital review, Issue 03: counter-works, 2023.  
DOI: <https://doi.org/10.7273/zyyq-xs17>

### **/ (In)Visible Women: Multidisciplinary Creation and Collaborative Research in Transmedia Art and Gaming in Portugal**

Lima, L., Gouveia, P., Ramos, L., Martilla, T., Correia, S., Costa, I., Gouveia, M.  
In: Proceedings of International Symposium on Electronic Art (ISEA) 2024  
DOI: [10.26773/mjssm.230905](https://doi.org/10.26773/mjssm.230905)

### **/ Inclusive Digital Storytelling: Artificial Intelligence and Augmented Reality to Re-centre Stories from the Margins**

Nisi, V., Stuart, J., Bala, P., Del Bue, A., Nunes, N.  
In: Lecture Notes in Computer Science book series (LNCS,volume 14383)  
DOI: [https://doi.org/10.1007/978-3-031-47655-6\\_8](https://doi.org/10.1007/978-3-031-47655-6_8)

### **/ Ethical Concerns when Working with Mixed-Ability Groups of Children**

Piedade, P., Henriques, A., Rocha, F., Neto, I., Nicolau, H.  
In: Proceedings of ASSETS 2023 Workshop  
DOI: <https://doi.org/10.1145/3597638.3614496>

### **/ The role of negative emotions in videogames**

Weiller, T., Cesário V., Campos, P.  
In: IHET 2024

### **/ Estimated Energy Expenditure in Youth While Playing Active Video Games: A Systematic Review**

França, C., Ashraf, S., Santos, F., Dionísio, M., Ihle, A., Marques, A., Nascimento, M., Gouveia, E.  
In: Special Issue Advances in Sport Psychology  
DOI: <https://doi.org/10.3390/sports12020039>

### **/ "It will surely fall": Exploring Teachers' Perspectives on Commercial Robots for Preschoolers**

Bakala E., Pires A., Tejera G., Hourcade J.  
In: GoodIT '23: Proceedings of the 2023 ACM  
DOI: <https://dl.acm.org/doi/10.1145/3582515.3609570>

### **/ The Integrated Museum Engagement Model (IMEM): Bridging Participatory Design, Immersive Storytelling, and Digital Representation for Enhanced Museum Experiences**

Cesário, V., Campos, P.  
In: The International Journal of the Inclusive Museum  
DOI: <https://doi.org/10.18848/1835-2014/CCP/v17i01/63-81>

### **/ "I Found it Cathartic": Exploring Empathy and Mental Health Awareness in Psychological Horror Video Games**

Tomé, F., Pires, A., Jiskrová, A., Saial, A., Campos, P.  
In: CHI Play 2024

### **/ "Masters Against Food Waste" Providing Children with Strategies to Avoid Food Waste"**

Olim, S., Vasconcelos, F., Dionísio, M., Campos, P.  
In: Join Conference of Serious Games (JCSG)

**/ Understanding the effects of watching a nature video on informal caregivers' emotional well-being compared to non-caregivers' emotional well-being**

Peres, B., Campos, P.

In: Persuasive Technology Conference - BCSS Workshop

DOI: <https://doi.org/10.18848/1835-2014/CGP/v17i01/63-81>

**/ The Effects of Observing Robotic Ostracism on Children's Prosociality and Basic Needs**

Correia, F., Neto, I., Paulo, S., Piedade, P., Erel, H., Paiva, A., Nicolau, H.

In: HRI '24: ACM/IEEE International Conference on Human-Robot Interaction

DOI: <http://dx.doi.org/10.1145/3610977.3634997>

**/ Vintage Meets Modern: A Retro-Inspired Audio Guestbook for Event Communication**

Cesario, V.

In: Proceedings of the 11th International Conference on Communities & Technologies

DOI: <http://dx.doi.org/10.48340/ct2023-8666>

**/ Empowering cultural heritage professionals: designing interactive exhibitions with authoring tools**

Cesário, V., Freitas, J., Campos, P.

In: Museum Management and Curatorship

DOI: <https://doi.org/10.1080/09647775.2023.2209896>

**/ Creativity Support Tools and Convergent Thinking: A Preliminary Review on Idea Evaluation and Selection**

Rodrigues, A., Cabral, D., Campos, P.

In: Proceedings of Creativity and Cognition, 2023. C&C '23

DOI: <https://doi.org/10.18848/1835-2014/CGP/v17i01/63-81>

**/ Hearing Heritage: Conveying and Preserving Cultural Expressions**

Cesário, V., Fernandes, M., Campos, P.

In: DIGICOM 2024

DOI: accepted

**/ Co-design under the Bauhaus of the Seas Sails Light-house project: a New European Bauhaus case study in Lisbon and Oeiras**

Roussado, C., Torretta, N., Duarte, F., Seixas, L., Marques M., Bettencourt, M., Light, A., Nunes, N.

In: Proceedings of DRS Boston 2024

DOI: <https://doi.org/10.21606/drs.2024.604>

**/ Periodic Fable in the Wild: Bringing Chemical Elements to Life and Making Them Relatable to Preteens**

Olim, S., Campos, P., Nisi, V.

In: IDC '24: Interaction Design and Children

DOI: <http://dx.doi.org/10.1145/3628516.3661164>

**/ A systematic review of reminder and guidance systems for Alzheimer's Disease and Related Dementias patients: context, barriers and facilitators**

Campos, P., Peres, B.

In: Disability and Rehabilitation: Assistive Technology Journal

DOI: <https://doi.org/10.1080/17483107.2023.2277821>

**/ Bilateral Asymmetry and the relationship between unilateral isokinetic strength and balance performance in male adolescent football players**

França, C., Martins, F., Martinho, D., Ihle, A., Marques, A., Sarmento, H., Clemente, F.,

Przednowek, K., Campos, P., Gouveia, E.

In: Montenegrin Sports Academy 1

DOI: 10.26773/mjssm.230905

**/ Gray hairs (Artistic Piece)**

Martilla, T.

In: The New River Journal – a journal of digital art and literature

**/ Cape of Storms: Recontextualizing Portuguese Colonial History in a Horror Game**

Tomé, F., Pires, A., Campos, M., Campos, P.

In: Proceedings of DiGRA Brasil 2024

DOI: <https://doi.org/10.1145/3639701.3663647>



**/ Assessing Stress Reduction of Relaxation Gaming: Investigating the Interrelation of Gamification, Advertising Intrusion and Stress Responses in Master's Students.**

Faria, C., Cesário V., Campos, P., Satar, M., Alvia, T.

In: HCI International 2024 Posters. HCII 2024.

**/ Virtual Reality Gaming in Rehabilitation after Musculoskeletal Injury - User Experience Pilot Study**

Gouveia, E., Campos, P., França, C., Rodrigues, L., Martins, F., França, C., Teixeira, F., Ihle, A., Gouveia, B.

In Applied Sciences Journal 2023

DOI: 10.3390/app13042523

**/ Efeitos dos Exergames na Aptidão Física de Jovens com Excesso de Peso e Obesos**

Cesário, V., Freitas, J., Campos, P.

In: Museum Management and Curatorship

DOI: <https://doi.org/10.1080/09647775.2023.2209896>

**/ Serious Games: Changing the environments in the classrooms**

França, C., Betencourt, G., Campos, P., Gonçalves, F.

In: HWID 2024

**/ Builders off Athens: Serious Game focused on Learning about Cultural Heritage**

França, C., Gonçalves, F., Campos, P.

In: DiGRA Brasil 2024

**/ Conexões digitais, conflitos reais: o abuso cibernético nas relações íntimas dos jovens adultos**

Saial, A., Portugal, A., Gouveia, E., Relvas, A.

In: Revista MOSAICO - FEAFT

**/ E-poster: Eficácia do Neurofeedback associado à Realidade Virtual para o alívio de sintomas relacionados à saúde: uma revisão sistemática**

Castanho, L., Martinho, D., Saial, A., Gouveia, B., Ribeiro, F.

In: XIII Congresso Ibero-Americano de Psicologia / 6º Congresso da Ordem dos Psicólogos

# Scientific Events

Specific scientific events are regularly hosted by the eGames Lab research team.

The most notorious one is called **LevelUp! Tuesdays** and is held in the last tuesday of



LevelUp! Tuesdays are internal capacity building events for eGames Lab researchers. They are meant to show ongoing work, gain insights from faculty and postdocs, connect with peers and hone presentation and communication skills (in english).

The event is held at the Funchal Lab in the auditorium or multipurpose rooms and with simultaneous online Zoom sessions with Lisbon, Évora and Azores.

Companies within the consortium also regularly pitch-in on these events, sharing their ongoing works and research. This allows for better collaboration and the fostering of new research ideas.

Now and then, there are major events held by the team in which researchers are invited to showcase their work in poster sessions and attend workshops with scientific advisors and invited Professors from other universities and institutes.

These events are named **Mega LevelUp!** and as it is reported in the midterm of the project, two of these events have already been hosted.





## Mega Level!Up @ eGamesLab - 1st Edition

The Mega Level!Up event was held at Funchal in February from the 12nd February to the 21st February, divided into poster sessions open to the community, followed by private poster session with the guest speakers (Lene Nielsen and Sabine Madsen), one-on-one mentoring sessions with the guest speakers and the eGames Lab researchers and then a full day workshop and talks event.

### Guest Speakers:



**Prof. LENE NIELSEN (PhD.)**  
**IT - University of Copenhagen**  
**Talk: "Personas for Games and Gamification Design"**

Personas is a prominent design method. This talk presents a brief introduction to the persona method. How and when you use personas. How personas are used in games and gamification. And finishes with a look at how personas are used in the health-domain.



**Prof. RUI PRADA**  
**Instituto Superior Técnico (IST)**  
**Talk: "Socially Interactive Agents in Games"**

In a world where AI is increasingly prevalent, it is crucial to create AI models that can understand social dynamics and interact with people in social settings. Games often present such settings. In the talk, we will discuss the creation of social AI and its application in games. Additionally, we will discuss some examples of applied games and a more general use of AI in games and games in AI research.



**Prof. SABINE MADSEN**  
**Aalborg University**  
**Talk: "Opening the Black Box of Theorizing"**

A key part of academic work is to engage in theorizing to develop your ideas and make a contribution to your field. This talk explores theorizing as a concept, as activities, and as ways of contributing to research and practice through collaboration and craftsmanship.



**Prof. NUNO CORREIA (PhD.)**  
**Universidade de Lisboa**  
**Talk: "Cultural Heritage Digitization for Enhanced Access and Engagement"**

The digitization of cultural heritage leads to a shift in how it is accessed, experienced, and shared. We explore the technical and sociocultural aspects of converting tangible heritage into digital formats that can be accessed both locally and remotely, providing a new dimension to cultural education. Digital artifacts and spaces encourage active participation through gaming, mixed reality experiences, and collaborative activities designed for both local and remote participants.



**Prof. ANTÓNIO COELHO (PhD.)**  
**Universidade do Porto**  
**Talk: "The Role of Immersion in the Ludification of Culture"**

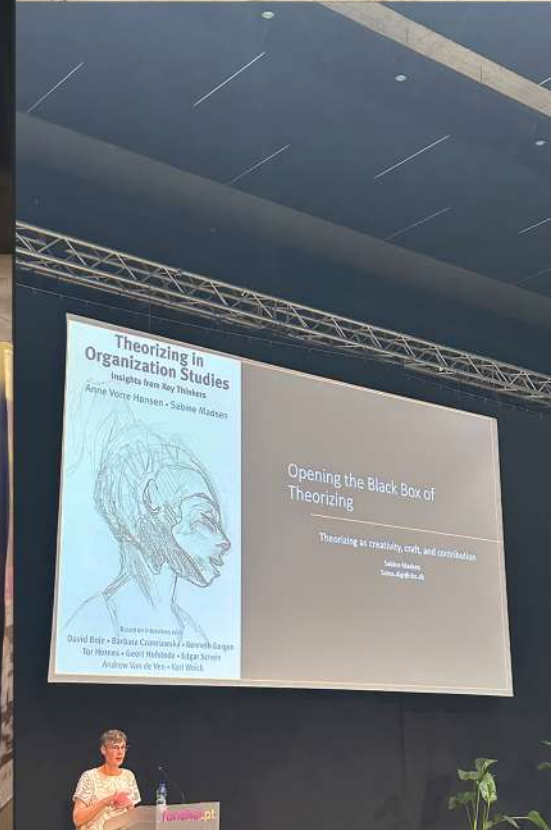
Immersion is a key factor for engaging the user, and can be driven by technology, by the narrative, or by the challenge. In this talk we will browse through Extended Reality and the reality-virtuality continuum to understand the distinct technological approaches to immersive and multisensory solutions. And we will also focus on the ludification of culture, and look how serious games and gamification can provide engaging and effective solutions.



**TROELS TRIER BING**  
**FRVR gaming company**  
**Talk: "LiveOps and Monetisation"**

This talk updates the audience on the current state of the gaming industry, the benefits and challenges on LiveOps and strategies on how to navigate the industry as a small studio.







## Mega Level!Up @ eGamesLab - 2nd Edition

The Mega Level!Up event 2nd Edition was again held at Funchal from the 3rd to the 4th April 2024, delving into the intersection of academia and gaming as experts from various disciplines share their insights on the impact of games.

The event was divided into a tour of the eGames Lab of Funchal, a private poster session with the guest speakers, talks, a transfer workshop and a final discussion.

### Guest Speakers:



**Prof. PATTY KOSTKOVA**  
University College of London  
Talk: "Serious Games for Digital Public Health: Opportunities and Challenges"



**Prof. NORBERT STREITZ**  
Scientific Director, Smart Future Initiative  
Talk: "The Role of AI and Human-Centered Design in Future Smart Hybrid Environments"



**Prof. CHRISTINE RIEDMANN-STREITZ**  
Managing Director, MarkenFactory  
Talk: "Insights from Participatory Design and its Applications as Inspirations for the eGames Lab "





# Media

The eGamesLab project has been generating a lot of buzz within the media. In this section we detail some of the clippings from the media.

## / Portugal Pavilion at GDC Hosted by eGamesLab: A Triumph for Portugal's Gaming Industry

Accesswire, August 2024

<https://www.accesswire.com/845735/portugal-pavilion-at-gdc-hosted-by-egameslab-a-triumph-for-portugal-s-gaming-industry>

## / eGames Lab leva sete empresas portuguesas à Game Developers Conference nos Estados Unidos

Jornal Económico, March 2024

<https://jornaleconomico.sapo.pt/noticias/egames-lab-leva-sete-empresas-portuguesas-a-game-developers-conference-nos-estados-unidos/>

## / Consórcio cria "vida extra" com fundo de investimento pós-PRR

Jornal Económico, May 2024

<https://www.jornaldenegocios.pt/empresas/tecnologias/detalhe/consorcio-cria-vida-extra-com-fundo-de-investimento-pos-prr>

## / eGamesLab quer criar fundo para atrair investidores internacionais

Jornal Económico, June 2024

<https://leitor.jornaleconomico.pt/noticia/egameslab-quer-criar-fundo-para-atrair-investidores-internacionais>

## / Consórcio eGames Lab Portugal levou oito jogos nacionais para a Gamescom

SAPO, August 2023

<https://tek.sapo.pt/noticias/computadores/artigos/consorcio-egames-lab-portugal-levou-oito-jogos-nacionais-para-a-gamescom>

## / eGames Lab promove jogos indie portugueses na Devcom e Gamescom: «Foi um momento importante»

PCCGuia, August 2023

<https://www.pccguia.pt/2023/08/egames-lab-promove-jogos-indie-portugueses-na-devcom-e-gamescom-foi-um-momento-importante/>

## / eGames Lab, com sede na Madeira, vai marcar presença em feiras internacionais de gaming

JM, August 2023

[https://www.jm-madeira.pt/regiao/egames\\_lab\\_com\\_sede\\_na\\_madeira\\_vai\\_marcar\\_presenca\\_em\\_feiras\\_internacionais\\_de\\_gaming\\_](https://www.jm-madeira.pt/regiao/egames_lab_com_sede_na_madeira_vai_marcar_presenca_em_feiras_internacionais_de_gaming_)

## / Madeira eGames Lab cria 250 postos de trabalho

Antena 1 RDP, June 2022

<https://madeira.rtp.pt/economia/madeira-e-games-lab-cria-250-postos-de-trabalho-audio/>

## / Os 7 projetos mais surpreendentes da bazuca portuguesa

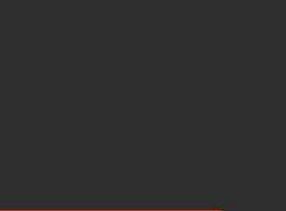
Eco, December 2021

<https://eco.sapo.pt/2021/12/04/os-7-projetos-mais-surpreendentes-da-bazuca-portuguesa/>

## / TSF: Negócios em português - o projeto eGamesLab

TSF, Junho 2024

<https://www.tsf.pt/programa/negocios-em-portugues/22/>



As seen on:





# Education

As part of our Mission, we believe that the eGamesLab can significantly contribute to the educational landscape, making learning more engaging, effective, and accessible for students of all ages.

With this statement in mind, we have worked on enhancing student engagement, using gamification to boost motivation and interest in learning but also working on societal awareness and acceptance on relevante topics such as environment protection and natural disasters.

Our researchers have worked closely with regional public departments and have been delivering videogames for all ages.

These games have been deployed in schools (age 6 to 12) and in the Ecological Park of Funchal. Researchers can now conduct studies based on these games that are publicly available.





[/ www.egameslab.pt](http://www.egameslab.pt)