

CYPRUS ==

INTERACTION

2023

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## 01

### **WELCOME**

The Cyprus Interaction Lab (CIL) of the Department of Multimedia and Graphic Arts of the Cyprus University of Technology is an interdisciplinary research lab that specialises in Educational Technology and Human-Computer Interaction. The lab was co-founded in 2011 by Panayiotis Zaphiris and Andri Ioannou and is the first of its kind in Cyprus, standing out for its high-quality research and facilities. We design with people and the community in mind, aiming to produce research with real-world impact. We seek to understand the significant supportive and mediating role of technology in promoting learning, communication and collaboration, social change, and inclusion in varied circumstances and contexts. Since 2017, CIL has co-operated closely with the Interactive Media, Education and Edutainment (EdMedia) Research Group of the CYENS Centre of Excellence.

Research at CIL aims towards theoretical and practical frameworks on two pillars:

Pillar I: Technology Enhanced Learning & Skills Development

Pillar II: UX, LX Design & Social Innovation

#### **MANAGEMENT**



Senior Researcher and Special Teaching Staff

#### **Research Interests**

Computer-assisted language learning, participatory design methodology in language learning, intercultural education, curriculum development and lifelong learning.



Associate Professor

#### Research Interests

Learning Design, Learning Technology, Educational Technology, CSCL Technology Enhanced Learning



Senior Researcher and Special Teaching Staff

#### **Research Interests**

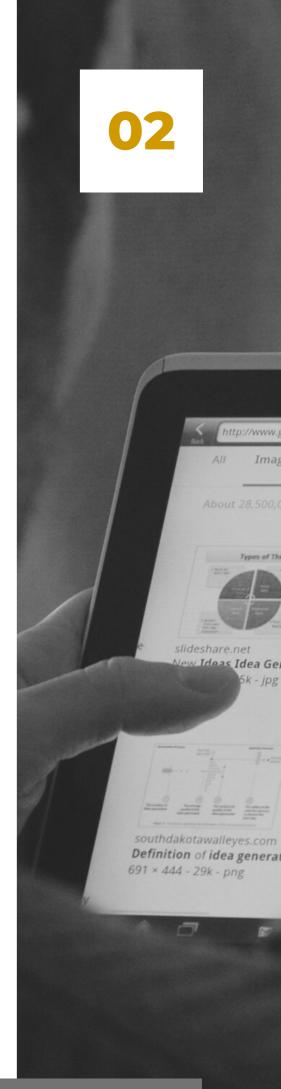
Social/situated Learning,
Technology Enhanced Learning,
Communities of Practice, HumanComputer Interaction, User
Experience, Learning Experience
Research & Design.



Professor and Rector at the CUT

#### Research Interests

Human-Computer Interaction, Social Computing and Inclusive Design with an emphasis on the design of interactive systems for people with disabilities.



#### **PHD STUDENTS**



#### **Research Interests**

Making, STEAM learning, techenhanced learning environments, assessment and development of 21st-century skills through digital making activities.



#### Research Interests

Educational Makerspaces, 21st-century skills development.



#### **Research Interests**

Academic Makerspaces, design, and evaluation of computer science curriculum, 21st-century skills development.



# 02

#### **STAFF - RESEARCHERS**

























#### **PHD GRADUATE**



Dr. Marianna Ioannou graduated from CUT (Cyprus Interaction Lab) in 2023. In her thesis titled "Embodied Technologies: Integration and Orchestration in Authentic Classroom Contexts", she explored the integration of embodied learning technologies in authentic classroom contexts. Through four design-based research cycles, the thesis addresses the challenges and perceptions of introducing technology-enhanced embodied learning in classrooms. It provides insights into pedagogical elements for meaningful integration, students' perceptions in different technology conditions, and orchestrates strategies for successful implementation. The conclusion offers practical guidelines for educators and researchers aiming to incorporate embodied learning technologies for engaging real-world classroom experiences.



## CARS: Children as Creators of Augmented Reality Stories (2024 - 2026)

Children as Creators of Augmented Reality Stories (CARS) project (Cooperation partnerships in school education, KA220-SCH-63F0F8B9) aims to promote AR as a medium children can use to create and share their own stories as part of their language learning experience. The project will study the use of AR in schools and develop technical and pedagogical training for teachers. This will enable teachers to integrate the use of AR in language learning classes. The results emerging from the testing and evaluation will allow us to gauge the project's impact and disseminate findings to contribute to this research field.

#### Lionfish (2023 - 2024)

Our new project Lionfish [2023 - 2024, KA210-SCH-2023-004] is a small-scale partnership in school education, bringing together experts in documentaries from Fox Media Documentaries Fox Media Documentaries and learning scientists from EdMedia at CYENS Centre of Excellence in collaboration with local environmental centers and schools, aiming to engage pupils into playing an active role in reacting to climate change. Immersed in the LIONFISH 360VR film (Biosphere VR concept), the students will be transported to a climate hotspot, a coast in Cyprus, where the new region's lionfish species is spreading out, putting in danger the local ecosystem and the fishermen's craftsmanship. The primary objective is to help students understand the impact of climate change on the Mediterranean marine ecosystem, and the spread of lionfish, and via STEAM activities and visual thinking canvases, explore local challenges related to climate change and sustainability.



#### **MetaCivicEdu (2024 - 2026)**

This project (KA220-SCH-DA0A14F7- Cooperation partnerships in school education) is applying modern metaverse-enabled pedagogical techniques for civic learning, and supporting K-12 teachers and students. It mainly addresses the weaknesses in the provision of civic education in primary schools. This project aims to improve teachers' skills and competencies in using metaverse technologies XR (Extended Reality) to support civic learning and to better prepare them to use advanced modern technologies to help young students develop and practice the knowledge, beliefs, and behaviours they need to participate in civic life and make an impact on their community.

#### **MariTech Talent Programme (2023 - 2025)**

The MariTech Talent Programme [Maritech 2023-2025, Horizon Europe] coordinated by Cleantech Bulgaria, is led by the Sustainable Energy Laboratory of CUT (http://www.energylab.ac.cy) in Cyprus, with the support of the Cyprus Interaction Lab, aims to develop a twin transition INTRApreneurship skills development programme, bringing maritime industry professionals and innovative enterprises with concrete digital solutions together in a two-way learning experience.

For a complete list of projects click here.



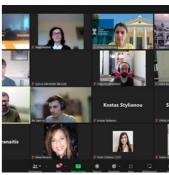
#### **DRFLEM Project LTTA**

#### Limassol, November 2023

The DRFLEMP learning, training, and teaching activity was completed successfully. The event aimed to train language and healthcare instructors on the use of the DRFLEMP application for practicing language for medical purposes. Beginning with an introduction to Mixed Reality, instructors then immersed themselves in testing the developed application. The feedback received from our dedicated instructors was overwhelmingly positive and immensely valuable for shaping the next phases of the project.









#### Lionfish kick-off meeting

#### September 2023

The LIONFISH project kicked off in September 2023 with a virtual meeting between Fox Media Film and EdMedia CYENS Centre of Excellence. The first physical meeting between the members of the team took place in Cyprus, on Friday, October 20, 2023. Robert Fox, director of Fox Media Documentaries, and the EdMedia team members met at a local environmental center to exchange the first ideas about the scenario of the film. Robert Fox spent a week on the island, speaking to fishermen and local stakeholders as well as filming at the shore.







#### DRFLEMP and FemPower Projects presented during the **Erasmus Days 2023**

Online, October 2023

In celebration of ErasmusDays 2023 between the 9th and 14th of October, we took the opportunity to share online the outcomes of our FemPower and DRFLEMP projects via engaging infographic presentations. Insights on developing a Mixed Reality app for medical language learning for the DRLEMP Project were shared, as well as the inspiring outcomes of our FemPower project, including our MOOC for #GenderEquality in the clean energy sector, our toolkit for higher education developed, the peer learning network community, as well as our Summer School that took place in Thessaloniki!

#### **Gender Equality in the Clean Energy Transition**









DAYS







The Toolkit



A gender-inclusive toolkit for higher education in the clean energy transition was developed as part of the project to foster equitable and inclusive learning environments following a STEAM approach. The toolkit strives to empower students, regardless of gender, to actively engage in clean energy studies and professions, while aligning with Bloom's Taxxonomy to promote deeper cognitive learning outcomes.





The 'FemPowering the Energy Transition' groundynamic community dedicated to empowering with the energy sector and energy transition. We him the power of diversity and inclusiveness and to provide a platform where women in this sectionet, inspire, share knowledge and network.

Join our community via the link below or scan the QR code.

https://www.linkedin.com/groups/14228037







#### Testing the tools

Alming to test the tools developed for the toolkit, a Design Thinking Workshop (DTW) took place during the FemPower Summer School. During the DTW the participants worked in groups to generate ideas, design a storyboard and prototype a sustainable and gender inclusive space. The overall feedback from the participants was positive and encouraging as they highlighed the creativity, teamwork and hands-on engagement during the workshop.













#### **ENTER EdTech: Transnational Project Meeting**

Covilha, Portugal, September 2023

The final TPM of the <u>ENTER Edtech project</u> was held on the 11th and the 12th of September in Covilhã, Portugal.

Partners had the opportunity to discuss the project's final steps and plan a solid exploitation strategy for the project's innovative outcomes. Partners were able to tour the UBI Medical incubator/accelerator, which houses entrepreneurs and innovative companies in the health and life sciences. This structure has enriched the Portuguese health cluster by serving as a link between the university and the market.







## DR FLEMP – Fourth Transnational Project Meeting Utena, Lithuania, September 2023

The Fourth Transnational Project Meeting (TPM) of the DRFLEMP (Digital Reality in Foreign Language Education For Medical Professionals) Project took place in September in Utena, Lithuania. It was a fruitful two-day meeting with discussions, evaluations of the project's progress, process planning, design of virtual reality environments, project management and current situation analysis. The next steps towards the application development, including the DRFLEMP application pilots and testing were discussed.







#### The FemPower Summer School

Thessaloniki, Greece, August 2023

The FemPower summer school took place on August 28th, 2023 in Thessaloniki and had a duration of five days. With 24 speakers and 40 students from 6 different countries, the summer school revolved around topics surrounding gender and energy during the whole week. The Cyprus University of Technology team delivered a Design Thinking Workshop (DTW) on the fourth day of the summer school, where the participants worked individually and collaboratively to generate ideas, design the storyboard, and prototype a sustainable and gender-inclusive space.









#### First ARIDLL teacher training workshop

Limassol, Cyprus, July 2023

The first ARIDLL (Augmented Reality Workshop for Language Learning) workshop in Cyprus occurred on July 5th, 2023 at the Cyprus University of Technology. In the workshop, language instructors and researchers participated with the aim to discover how Augmented Reality (AR) revolutionizes language learning experiences. During the workshop, they engaged in hands-on activities and demonstrations, collaborated with fellow educators and shared ideas, explored AR's potential in language instruction and learned about best practices and successful case studies.



Learn about Augmented Reality in language learning Build your own educational resources







## EPOS. Internationalisation at Home in the Post-Pandemic World: The case of Cyprus Higher Education System Limassol, Cyprus, July 2023

The EPOS Internationalisation at Home (IaH), part of the Cyprus University of Technology Postdoctoral Excellence Innovation Programme (METAΔIΔAKTΩP) has been completed. EPOS focuses on exploring and enhancing Internationalisation at Home (IaH) practices in the Republic of Cyprus. The project was led by Dr Maria Victoria Soule as the principal investigator and supervised by members of the Cyprus Interaction Lab. On the project's website, you will find the EPOS Toolkit with case studies from around the world where IaH initiatives have been implemented, EPOS Webinars where the research findings of the EPOS project are presented as well as hands-on workshops dedicated to advance academic teaching staff competence on IaH, Testimonials from experts in IaH, and the EPOS Guide to implement IaH practices. The EPOS website also boasts The EPOS Training Programme Space, which has been thoughtfully created to support academic teaching staff in improving their comprehension, capabilities, and expertise in IaH, and a Community of Practice: an environment designed to interact with colleagues from around the world and exchange ideas on how to better implement IaH practices.

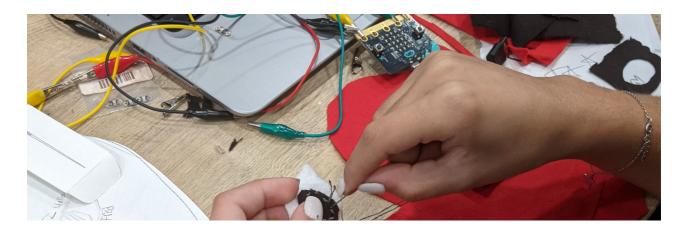


## **Constructions with Micro:bit technology and electronic** fabrics

Nicosia, Cyprus, June-July 2023

In collaboration with the UCL Knowledge Lab, organized and delivered an innovative workshop for children entitled: "Constructions with Micro:bit technology and electronic fabrics". After the successful implementation of a previous e-textiles workshop by the same team, the new workshop was once again a great success and enjoyable STEAM learning opportunity for the participating children, 12-14 years old.

During the workshop, the children had the opportunity to study science concepts and code the Micro: bit for the creation of e-textiles crafts. The Micro: bit is a small, portable programmable computer which can be stitched into a fabric creation/piece of clothing, as part of e-textile activities. According to the participating children, the workshop was engaging, as it combined the notion of programming/coding with a set of creative and hand-on activities related to circuitry, sewing and craft-making.





## **ENTER EdTech: Cyprus Learning Innovation Hub Closing Event**

Nicosia, Cyprus, January 2023

The Enter EdTech Closing Pitching event took place successfully on the 26th of January 2023 at the Bank of Cyprus Cultural Foundation. The participants were groups with an EdTech start-up idea, who participated in the Cypriot Learning & Innovation Hub which involved a 5-week online training and 4-day face-to-face mentoring program. Six teams completed the training and mentoring program and agreed to present at the closing pitching event: Answeropia, BCSIZING, Vitamin XR, iRESET, PlayTool and Lilith's Child Games Studio. The ideas were pitched in front of the audience and the panel of judges. The pitching presentations were evaluated by an exceptional panel of judges that consisted of:

- Ms Angela Panayiotou, Innovation and Startups & Entrepreneurship Advisor and Member of Board of Directors at Invest Cyprus,
- Mr George Malekkos, CEO and Founder of Powersoft Computer Solutions Ltd,
- Mr Burak Berk Doluay, Entrepreneurship Community Manager at CYENS Centre of Excellence, and
- Dr Olga Shvarova, Chief Innovation Officer at CYENS Centre of Excellence.

The teams were competing for a chance to win one of the following prizes, which were a kind sponsorship of the IDEA Innovation Center, PowerSoft Computer Solutions Ltd, European University Cyprus, GrantXpert Consulting, IED Institute of Entrepreneurship Development and JOIST Innovation Park.

- First prize: A direct place to the final evaluation stage for inclusion in the programme of the 8th cycle of the IDEA Innovation Center 2023 AND Consulting/Mentoring services for the development of the business idea by PowerSoft Computer Solutions Ltd.
- Second prize: A direct place in the 2nd cycle of the "Microsoft for Start-ups" program of European University Cyprus AND consulting/mentoring services for the utilization of available National and European grant programmes by GrantXpert Consulting Ltd.



• Third prize: JOIST Innovation Park will provide consulting/mentoring services for the further development of a business idea AND consulting/mentoring services by the IED Institute of Entrepreneurship Development on the utilization of available European grant programs.

The event proceeded with the announcement of the winning teams, as follows:

1st Winner: BCSIZING (www.bcsizing.com)

2nd Winner: PlayTask Games (<a href="https://www.linkedin.com/company/playtask/">https://www.linkedin.com/company/playtask/</a>)

3rd Winner: Lilith's Child Games Studio (<a href="https://www.linkedin.com/company/liliths-child-">https://www.linkedin.com/company/liliths-child-</a>

games-studio/posts/?feedView=all)

The event concluded with networking over a cocktail party.







## **ENTER EdTech: Where start-ups meet with educational technology**

### Our ENTER Edtech project via EdMedia at CYENS Centre of Excellence is concluding soon.

The course and all materials on EdTech entrepreneurship can be found here: <a href="https://elearn.enteredtech.eu/training/">https://elearn.enteredtech.eu/training/</a>

You can enter the platform for free.

The units are:

Module 1: The Education Market

Module 2: Product Market Fit & Evaluation

Module 3: Sales Process

Module 4: Financial Planning & Revenue Models in EdTech

Module 5: Commercialisation, Marketing, and Pitching

Facebook: <a href="https://www.facebook.com/ENTEREdTech">https://www.facebook.com/ENTEREdTech</a>

Linkedin: <a href="https://www.linkedin.com/.../enter-edtech-project/posts/...">https://www.linkedin.com/.../enter-edtech-project/posts/...</a>

Website: <a href="https://www.enteredtech.eu/">https://www.enteredtech.eu/</a>

Youtube: <a href="https://youtube.com/@enteredtechproject?si=-AlvRJLu7B6LOscq">https://youtube.com/@enteredtechproject?si=-AlvRJLu7B6LOscq</a>



## FEATURED PUBLICATIONS

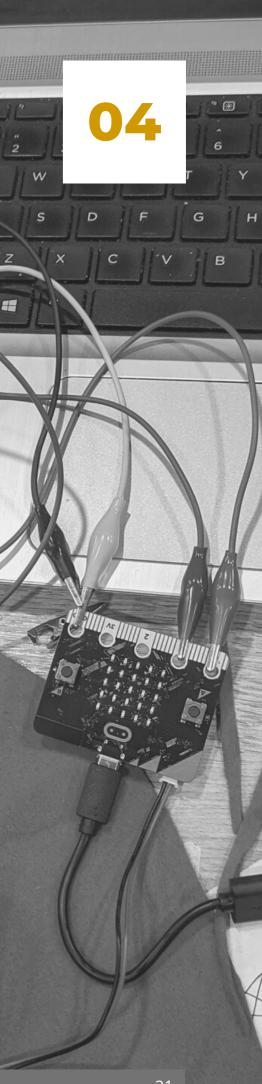


Miliou, O., Adamou, M., Mavri, A., & loannou, A. (2023). An exploratory case study of the use of a digital self-assessment tool of 21st-century skills in makerspace contexts. Educational technology research and development, 1-22. <a href="https://doi.org/10.1007/s11423-023-10314-0">https://doi.org/10.1007/s11423-023-10314-0</a>



Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., Martínez Monés, A., & Ioannou, A. (2023). Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. Education and information technologies, 28(6), 6695-6726. https://doi.org/10.1007/s10639-

https://doi.org/10.1007/s10639-022-11431-8



## FEATURED PUBLICATIONS



Mavri, A., Ioannou, A., Loizides, F. (2023). A model for enhancing creativity, collaboration and pre-professional identities in technology-supported cross-organizational communities of practice. Education and Information Technologies <a href="https://doi.org/10.1007/s10639-023-12295-2">https://doi.org/10.1007/s10639-023-12295-2</a>



Giannoutsou, N., Dimitriadis, Y., Villagrá- Sobrino, S., Ioannou, A., Timotheou, S., Mckenney, S., Van Der Linden, S., Jorrín- Abellán, I., Martínez-Monés, A., Adamou, M., Cachia, R., Hogenkamp, L., Gallego-Lema, V., Coca Jiménez, P. and García-Sastre, S. (2023). Empowering schools to drive their digital transformation: Insights from the evaluation of SELFIE, European Commission, Seville, 2023, JRC135407. <a href="https://publications.jrc.ec.europa.eu/repository/handle/JRC135407">https://publications.jrc.ec.europa.eu/repository/handle/JRC135407</a>



### SPECIAL ISSUE

## Learning Through Design and Maker Education



Trends, Tensions, and Futures of Maker Education Research: A 2025 Vision for STEM+ Disciplinary and Transdisciplinary Spaces for Learning through Making [to appear in ETR&D as the February 2024 issue]

#### **Special Issue Guest Editors:**

Andri Ioannou, Cyprus Interaction Lab & EdMedia-CYENS, Cyprus Brian E. Gravel, Tufts University, USA

#### **Editorial Chapter Abstract:**

This special issue aims to sketch the present state of maker learning research, reveal possible tensions, and present future possibilities to articulate principles for learning through design in the era of maker education. The special issue was announced in 2022 in ETR&D, a leading academic journal in educational technology. Of the 50 submissions to the special issue, eighteen (18) were accepted for publication. The editors favored a robust inclusion of papers to help define the contours of the field at present. Four clusters of topics are identified in this collection of papers: (i) STEM+ disciplinary and transdisciplinary learning spaces; (ii) Digital technologies in making, opportunities and challenges; (iii) Assessment practices and frameworks; (iv) Representation, inclusion, and tensions around maker-centered initiatives and reforms. The editors of the special issue believe that these clusters reflect the current state-of-the-art in the field as well as significant questions to guide near future research. Reflecting on these papers but also the overall editorial process, the co-editors identified several opportunities and provide suggestions on how the field might expand moving forward.



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