CYPRUS INTERACTION LAB

www.cyprusinteractionlab.com

The Cyprus Interaction Lab of the Department of Multimedia and Graphic Arts of the Cyprus University of Technology studies the interaction of people with technology in various fields.

Research in the Cyprus Interaction Lab revolves around two main research themes:
1) Human Computer Interaction and Inclusive Design and
2) Instructional Technology and Social Computing.

Research topics include:

> Human Computer Interaction (HCI)
> Inclusive Design/Accessibility
> Educational Technology
> Social Aspects of Computing
> Technology-Enhanced Learning
> Technology Integration in K-20
> Educational Robotics
> Advanced Technologies for Learning
> Computer Games and their social and pedagogical dimensions
> Computer Mediated Communication (CMC)
> Computer Supported Collaborative Learning (CSCL)
> Computer Supported Collaborative Work (CSCW)

Inside this issue:

Welcome note from the lab manager

Assistant Prof. Andri Ioannou
Lab Co-founder & Director

The Cyprus Interaction Lab is the only research facility in Cyprus conducting interdisciplinary research in the areas of Educational Technology, Social Computing and Human Computer Interaction. We are a team of 13 researchers and we carry complementary expertise in these areas.

Our research aims to:

> understand and enhance users' experience and interaction with technology.
> understand the significant supportive and mediating role of technology in promoting learning, communication & collaboration, and social change in varied circumstances and contexts.

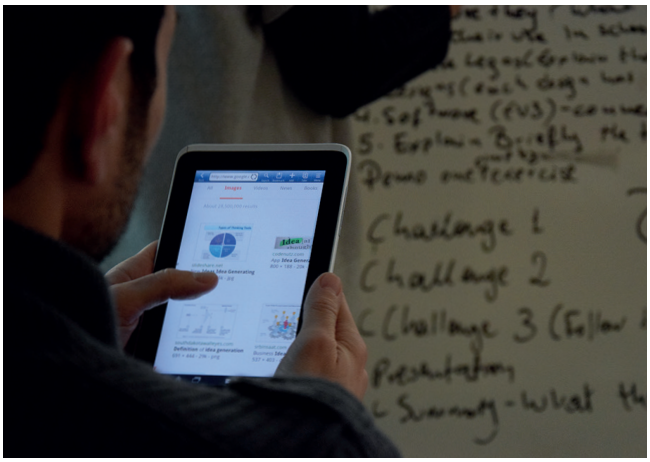
Year 2016 has been a very productive year with numerous new publications and projects in these areas of research.

As a space the Lab has a specially equipped usability laboratory (see http://cyprusinteractionlab.com/facilities). This year we have invested on the purchase of various educational robotics models as well as technologies for setting up interactive walls and floors.

The Lab also offers an MSc in Interaction Design (http://idmaster.eu). A total of 20 students are currently registered in this new program.

We are proud to engage in research that helps unpack the potential of emerging technologies to positively influence our society. We hope you will enjoy reading our newsletter which highlights our major achievements of the year 2016.

The director,
Assistant Prof. Andri Ioannou



New PhD students

The Cyprus Interaction Lab has welcomed two new PhD students in 2016.

Vaso Constantinou

Vaso Constantinou is a member of the Cyprus Interaction Lab since 2015. She joined the PhD programme of the Department of Multimedia and Graphic Arts at Cyprus University of Technology in 2016. She completed her BA in Multimedia and Graphic Arts at the Cyprus University of Technology (2014). Her research interests include the use of technology for inclusive education and media/ICT support for social inclusion particularly effective inclusion of people with hearing impairment or deafness.

Panagiotis Kosmas

Panagiotis Kosmas is a member of Cyprus Interaction Lab since 2015. He joined the PhD programme of the Department of Multimedia and Graphic Arts at Cyprus University of Technology in 2016. He completed his bachelor degree in Classical Studies at University of Athens. He holds an MA degree from Universita degli Studi Roma Tre in Italy in Pedagogical Sciences on the teaching methodology of history through technological tools and also an MA in New Technologies for Learning and Communication from the Cyprus University of Technology. He is interested in exploring kinesthetic learning through the means of technology in the context of language learning.

The Cyprus Interaction Lab members

More information at:
http://www.cyprusinteractionlab.com/people

Events: Womenpower Symposium 2016 (WeMe2016) and World Usability Day

CUT and Wargaming inspiring the new generation

Over 200 participants from Cyprus, Greece, Egypt, Sweden, Switzerland, United Kingdom, Poland and USA, attended the Womenpower Symposium 2016 that took place at Cyprus University of Technology on the 16th of November. Womenpower is the third seminar of this series, aiming to support and empower women in their professional development in technology related areas. The event was organized by the Cyprus Interaction Lab and the ACM-Women Cyprus, with the support of Fulbright, the Association for Computing Machinery on Women (ACM-W), and the Cyprus Computer Society (CCS).

With an eye to encourage children, teenagers, and adults to choose the exciting opportunities offered in the area of technology and defy stereotypes about the role of women in the digital technology industry, the symposium included three keynote talks, six practical workshops, four short presentations and thirteen poster presentations. The seminar provided an opportunity for dozens of male and female students, young entrepreneurs and professionals to attend practical workshops on developing entrepreneurial skills, creating their CV, preparing for job interviews as well as networking opportunities. The closing of the seminar was entitled "International Perspectives in the User Experience" with keynote speakers women researchers from industry and academia on the occasion of the World Usability Day. Speakers were Sofia Chebanova, Lead User Experience Researcher of Wargaming.net and Darelle van Greunen, professor at the Nelson Mandela Metropolitan University in South Africa.

The women empowerment symposium, Womenpower, is one of the programs through which ACM-Women Cyprus, Fulbright and Association for Computing Machinery on Women (ACM-W), invests in the education of young women in creating a base of future employees ready to confront the challenges of the global economy.

More information at:
http://cyprusinteractionlab.com/technology-everyone-cut-wargaming-inspiring-new-generation

News & Highlights

4th International Conference on Learning and Collaboration Technologies (LCT 2017)

The Cyprus Interaction Lab will be represented by Assistant Professor Andri Ioannou, CIL lab director and Professor Panagiotis Zaphiris, as co-chairs to the LCT 2017 - a Thematic Affiliated Conference of HCI International 2017. The conference addresses theoretical foundations, design and implementation, as well as effectiveness and impact issues related to interactive technologies for learning and collaboration, including design methodologies, developments and tools, theoretical models, instructional design, as well as technology adoption and use in formal and informal educational contexts. http://2017.hci.international/lct

Microsoft supports Kinems for a pioneering research in Cypriot schools

In October 2016, a closing gathering for the project took place. More than 20 special educators, psychologists and therapists from 6 schools in Cyprus returned at the premises of the Cyprus University of Technology to share their thoughts and experiences about using the innovative Kinems approach and its interactive Kinect games. Findings from the project were presented by researchers at the Cyprus Interaction Lab of the Cyprus University of Technology coordinating this effort, with the support of Microsoft Cyprus. Overall the project was a great success, demonstrating the effectiveness of Kinems for children with special educational needs and multiple learning disabilities. Findings revealed that students improve not only their emotional state but also their academic performance in mathematics and language. The Kinems games based on motion capture technology have helped enriched the participants' vocabulary, visual perception, motor skills and attention and concentration across intervention sessions. See demo video at https://youtu.be/C2hQbv03D68

The week of code: Learning programming with my parents

In October 2016, the Cyprus Interaction Lab of the Cyprus University of Technology celebrated the week of code with tens of Elementary students and their parents. Three workshops were conducted with groups of 10, 11, and 12 year-old students and their parents, aiming to engage the participants in problem solving using with different types of educational robots. Through educational robotics, students can develop different types of skills and strategies to problem solving, known as computational thinking. Members of the Cyprus Interaction Lab urge to advance research in this area.

Research Projects

Members of the Cyprus Interaction Lab participate in a number of new research projects:

NETWORK FOR SOCIAL COMPUTING RESEARCH [NOTRE] 2016-2018

NOTRE is funded (total budget: 1 million euro) by Horizon 2020 Twinning programme – TWINN 2015 – and the duration of the project is 36 months (01/01/2016-31/12/2018). NOTRE aims to develop a network that will strengthen and enhance the research and innovation potential and capability of the newly established Social Computing Research Centre (SCRC) at the Cyprus University of Technology (CUT) for stimulating scientific excellence and innovation capacity in the area of Social Computing.

More information at:
http://notre.socialcomputing.eu

ENHANCING SECURITY AND PRIVACY IN THE SOCIAL WEB [ENCASE] 2016-2020

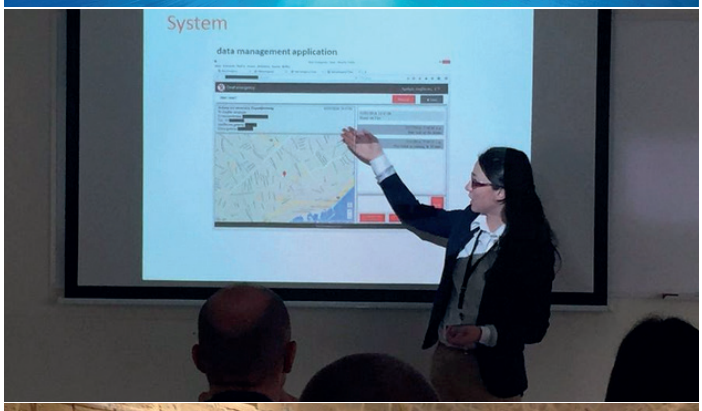
ENCASE is funded by the Horizon 2020, Marie Sklodowska Curie Research and Innovation Staff Exchanges program. The EU budget amounts to 2.16M Euro. The aim of the ENCASE project is to leverage the latest advances in usable security and privacy to design and implement a browser-based architecture for the protection of minors from malicious actors in online social networks. The overall vision of the project is to provide research and innovation contributions to end-user experience assessment, large scale data processing, machine learning and data mining, and content confidentiality.

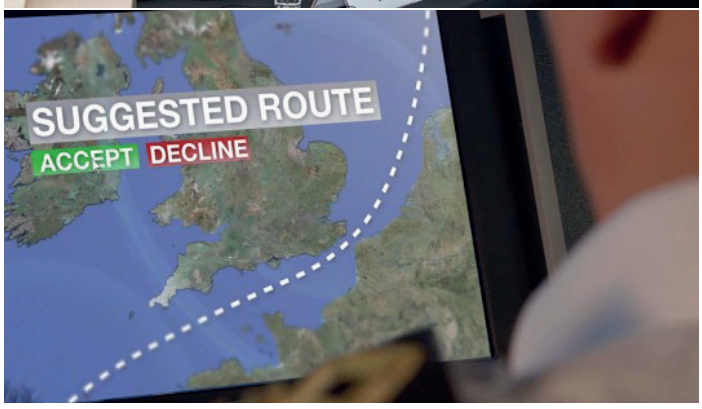
More information at
http://encase.socialcomputing.eu

SEA TRAFFIC MANAGEMENT VALIDATION PROJECT [STM] 2015-2018

The EU has decided to contribute with €21 million to the Sea Traffic Management Validation Project, a Motorways of the Sea project. Test beds in Northern Europe and Mediterranean Sea will engage 300 vessels, 10 ports of different sizes and 3 shore centres. These will validate the Sea Traffic Management (STM) concept and pave the way for smooth deployment of new collaborative services previously unknown to sea transport but existing for many years in other transport sectors.

More information at:
http://monalisaproject.eu/eu-grants-e21-million-to-new-sea-traffic-management-validation-project





Research Projects

Let us know what you are working on!
If you wish to help out or collaborate with the Cyprus Interaction Lab feel free to email us at:
info@cyprusinteractionlab.com

ONE CITY, THE WHOLE WORLD PROJECT: TECHNOLOGY ENHANCED PEACEMAKING [TAME 2016-2017]

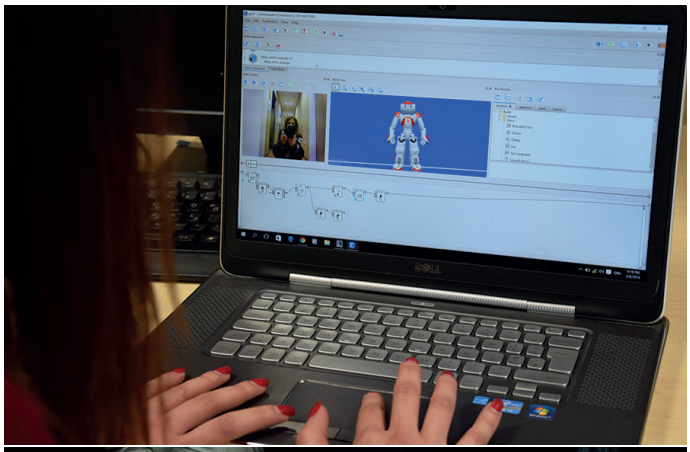
Considering that collaboration and conflict resolution are socially-mediated and highly reflective processes, the use of multitouch interactive technologies has great potential to demonstrate in this context, as it enables people in conflict to work together. Via collaboration with the Limassol Municipality (One city, the whole world porject) and starting in Jan 2017, the Cyprus Interaction Lab will conduct technology enhanced interventions (using interactive tabletops) to promote perspective taking and collaboration in public schools with large number of immigrants.

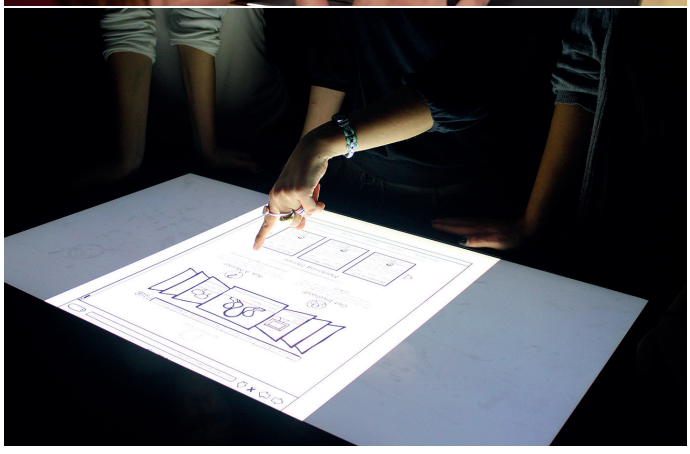
More information at:
http://www.2016.integrationlimassol.com

COST ACTION IS1401: STRENGTHENING EUROPEANS' CAPABILITIES BY ESTABLISHING THE EUROPEAN LITERACY NETWORK

Through this Action, reading and writing research communities across Europe are joining, integrating their findings, and aligning their agendas so that they can: 1) develop an integrated and inclusive approach to foundational literacy across Europe; 2) devise a comprehensive framework of developmental aspects of literacy and education in a digital world; and 3) further improve literacy technologies. This will be valuable for promoting citizens' interdependence, participation, and innovation, which are key assets to a united and diverse Europe.

More information at:
http://www.cost.eu/COST_Actions/isch/IS1401





COST ACTION LUDI: TD1309 PLAY FOR CHILDREN WITH DISABILITIES (LUDI)

The "LUDI" COST Action aims at the creation of a novel and autonomous field of research and intervention on play for children with disabilities.The network has three main objectives: a) collecting and systematizing all existing competence and skills: educational researches, clinical initiatives, know-how of resources centers and users' associations; b) developping new knowledge related to settings, tools and methodologies associated with the play of children with disabilities; c) disseminating the best practices emerging from the joint effort of researchers, practitioners and users.
http://www.cost.eu/COST_Actions/tdp/TD1309

More information at:
http://www.ludi-network.eu

New Publications

The Cyprus Interaction Lab has published a total of 24 papers in prominent journals and conferences in 2016.
For a full list of our publications, please visit our google scholar page at: http://tinyurl.com/jb4efd9
Below you can find details of a selection of our 2016 publications.

MASSIVELY MULTIPLAYER ONLINE ROLE PLAYING GAMES (MMORPGS) AND THE 21ST CENTURY SKILLS: A COMPREHENSIVE RESEARCH REVIEW FROM 2010 TO 2016

In the past decade, there has been increasing interest in studying the educational affordances of Multiplayer Online Role Playing Games (MMORPGs). Using the KSAVE (Knowledge, Skills, Attitudes, Values, Ethics) 21st Century Skills framework, this paper presents the current state of the art in MMORPGs empirical research from 2010 to 2016, considering the latest overview reported in 2010. This review sought to determine the level of maturity of the body of MMORPGs research and to identify lacks of knowledge, with respect to 10 types of 21st Century Skills. The current work considered 120 research publications and categorized 49 empirical studies according to their research foci and results on one or more types of 21st Century Skills. The results revealed a strong body of evidence suggesting that MMORPGs are spaces in which a variety of 21st Century Skills can be fostered. Yet, most MMORPGs research focuses on the investigation of the communication skill (22% of the skills examined), whilst creativity and innovation as well as problem solving and information literacy are largely unexplored in this context. The discussion focuses on understudied areas in MMORPGs research aiming to advance future inquiry that addresses current challenges.

Sourmelis, T., Ioannou, A., & Zaphris, P. (2015). Massively Multiplayer Online Role Playing Games (MMORPGs) and the 21st century skills: A comprehensive research review from 2010 to 2016. Computers in Human Behavior, 67, 41-48.

ENACTING ARTIFACT-BASED ACTIVITIES FOR SOCIAL TECHNOLOGIES IN LANGUAGE LEARNING USING A DESIGN-BASED RESEARCH APPROACH

This paper presents the results of a three-year design-based research (DBR) study on the use of social technologies for collaborative construction of shareable artifacts by groups of learners. The study builds on the learning theory of constructionism which assumes that knowledge is better gained when students find this knowledge for themselves while engaging in the making of concrete and public artifacts. In an attempt to infuse elements of constructionism in the use of social technologies, we tasked groups of learners in language learning courses with collaborative construction of an artifact using social technologies.
A unique characteristic of our approach is that the process that students adopted and the way technology and context fostered this procedure was analyzed. The cycle of DBR fueled deep insights into the learning processes that emerged through the construction of an artifact, thus deepening our understanding of the multimode and multi-trajectory relationship between theory, artifact construction and social technologies. For sustaining and orchestrating social construction of artifacts by groups of learners, a set of instructional elements emerged, as well as implications for enacting social technology innovations in real-life classrooms.

Parmaxi, A., Zaphiris, P., & Ioannou, A. (2016). Enacting artifact-based activities for social technologies in language learning using a design-based research approach. Computers in Human Behavior, 63, 556-567.

TABLETOPS FOR PEACE: TECHNOLOGY ENHANCED PEACEMAKING IN SCHOOL CONTEXTS

This article describes an empirical investigation of technology-enhanced peacemaking in a conflict-stressed school environment. The peacemaking intervention required students in conflict-laden groups to collaborate on various game-like learning activities on a multitouch interactive tabletop, over the span of three weeks. Student interviews and video observations provided evidence that tabletops can become a means for communication and collaboration giving the chance for students in conflict to share a common space, shifting attitudes and improving their relationships. The study elaborates on the affordances of tabletops as they become apparent in the context of peacemaking, unpacking the still widely unexplored potential of multitouch interactive technology in peace education.

Ioannou, A., & Antoniou, C. (2016). Tabletops for Peace: Technology Enhanced Peacemaking in School Contexts. Educational Technology & Society, 19 (2), 164–176.

Contact us

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Please use the map below for directions.