Irene-Angelica Chounta

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Short Bio.

My name is Irene-Angelica Chounta, and since April 2021, I hold a Junior Professorship in the Department of Computer Science and Applied Cognitive Science (INKO) at the University of Duisburg-Essen. My main research interest is to model learners' behavior to provide evidence-based, adaptive and personalized feedback. My main contributions are in student modeling, artificial intelligence in education (AIED), and learning analytics. Currently, I serve as a Communications Co-Chair for the International Society of the Learning Sciences (ISLS), and I am an active member of the International Artificial Intelligence in Education Society (IAIED) where I serve as a publication chair for the AIED conference series and the Society for Learning Analytics Research (SoLAR).

I was born and raised in Athens, Greece. I studied Electrical and Computer Engineering at the University of Patras, where I also completed my Ph.D. in Educational Technologies and Human-Computer Interaction in 2014. During my doctoral studies, I focused on collaboration analytics, and I designed an automatic rater of collaboration quality based on time series [1].

From April 2018 to March 2021, I held a joint position as an Assistant Professor of Learning Analytics at the Institute of Education and the Institute of Computer Science, University of Tartu (Estonia). There, I led the project "Combining Machine-learning and Learning Analytics to provide personalized scaffolding for computer-supported learning activities [1]" that aimed to bridge the gap between theory, and data-driven, practice [2]. The project was funded by the Estonian Research Council.

From April 2016 to March 2018, I was a post-doctoral researcher at the Human-Computer Interaction Institute at Carnegie Mellon University (Pittsburgh, PA, USA) with Prof. Bruce McLaren. I worked on a collaborative project between the University of Pittsburgh and Carnegie Mellon University ("Rimac: Improving a Natural-language Tutoring System that Engages Students in Deep Reasoning Dialogues about Physics"). During this project, I designed an online, adaptive student model to guide students through tutorial dialogues considering their prior practice [3].

From August 2014 to March 2016, I worked in the Collide Group as a post-doctoral research associate at the Department of Computational and Cognitive Sciences, University of Duisburg-Essen (Germany) with Prof.

[1] http://colaps-project.info/

Ulrich H. Hoppe. In Collide, we explored learning analytics to scaffold communication and learning in MOOCs, and online labs and to foster creativity and reflection [4].

Research and Teaching

Currently, I am fully invested in expanding the research group *colaps*: "Computational methods for the modeling and analysis of learning processes [2]" – consisting of researchers, Ph.D. and master students – that aims to develop highly competitive research and to attract international visibility and funding. The group focuses on studying and modeling user activities and interactions in various learning contexts. In our research, we employ artificial intelligence, machine-learning, and data-mining approaches to model students' knowledge state and to assess students' performance. For example, we are interested in exploring the relationship between response times and student performance with the aim to improve the accuracy of predictive student models [5]. Additionally, we are interested in modeling established pedagogies (such as the Zone of Proximal Development [6]) with the aim to facilitate personalization and adaptation of instruction and feedback. Among others, we explore the use of data to analyze the collaborative construction of artefacts and to model collaborative practice, creative processes, and knowledge building during informal learning events such as Hackathons, Maker Spaces, and DevCamps [7].

In the University of Duisburg-Essen, I will be teaching the Master-level course "Intelligent Learning Environments" that will cover topics on intelligent tutoring systems, interactive and technology-enhanced learning and teaching environments and online learning platforms. I also offer Praxisprojects and Research Seminars during the winter semesters on topics related to Learning Informatics, Educational Technologies and AIED.

About me

I believe that education is the answer to many questions, along with kindness and understanding. I also believe in working together to achieving common goals for the common good. My overarching goal is to empower humans to aim for their dreams and beyond of what is "possible" and to use my privilege and power to provide opportunities and support those around me – especially, youth from underrepresented groups and minorities. Everyone has a right to education.

I enjoy traveling around the world, and to learn something new every day. I like performing arts and reading; My all-time favorite book is the novel "The Master and Margarita" by Mikhail Bulgakov. I absolutely love the Ruhrgebiet and its blue-collar heritage: walking around the Duisburg campus and Kaiserberg, hiking at

[2] https://www.uni-due.de/colaps/

Landschaftspark and Zeche Zollverein and meeting friends at Bochum Bermudadreieck and Duisburg Innenhafen are only few of my favorite activities in the area.

References

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