DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE



Ph.D. programme in Mathematics and Computer Science

Speakers: Prof. Grigoris Antoniou - University of Huddersfield, UK

Title: Towards Automatic Risk Assessment to Support Suicide Prevention

Abstract: Suicide is a leading cause of death in the UK and around the world. Despite increasing efforts to address this issue, the rate of suicide has not changed substantially over the past decades, although medical knowledge and healthcare technologies developed rapidly and huge progress in combating other leading causes of death was made. Indeed, suicide risk has proven extremely difficult to assess, and current scales have not lived up to promise.

There is an increasing realization that new approaches to suicide prevention are needed. One particular promising approach is automatic prediction of suicide risk based on the analysis of personal health data, using machine learning techniques. In this talk we will present the approach and results of a project jointly carried out by the South West Yorkshire Partnership NHS Foundation Trust and the University of Huddersfield. The project analysed all mental health data records of people who died by suicide in 2013-2016 held by the Trust, that included both structured information and free-text medical notes. We employed a machine learning pipeline, and developed referral-centric suicide prediction models. We will discuss the setting, approach, limitations and next steps of this research.

Short Biography: Grigoris Antoniou is Professor of Artificial Intelligence at the University of Huddersfield. His research interests include semantic and knowledge technologies, open data and data analytics. He has published over 200 technical papers that attracted over 10000 citations with an h-index of 40, and is author of A Semantic Web Primer, MIT Press 2004/2008/2012. In recent years, his research has been supported by EU FP7 and Horizon 2020, Innovate UK, British Telecom and the NHS. He is a Fellow of the European Association for Artificial Intelligence.

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