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Sano Computational Medicine Seminars

Monday, 6 December 2021, 14:00-15:30 (CET)

Join us via Zoom: <https://seminar.sano.science/>

Dr. Jose Sousa, PhD

Personal Data Science Team Leader

Citizen before Patient (Cb4P)- "Empowering Personal Health decision making within actionable insights of a Computational Intelligence Architecture of Choice"

Abstract

The effects of risky behaviours, like smoking, obesity and drinking are reflected on the development of non-communicable disease. The World Health Organization (WHO) reports that noncommunicable diseases (NCDs) kill 41 million people the equivalent to 71% of all deaths globally. Behavioural risk factors account for almost half of all deaths in Poland. Detection, screening, and treatment of NCDs, as well as palliative care, are key components of the response to NCDs.

Citizenship is described as one of the main factors to enhance human quality of life (QoL) and drive change, however, in the health care sector, citizen empowerment is often disregarded. Due to its effects and impacts, the health decision-making process relies on experts delivering solutions while not empowering individuals' choices on its health path. It's well known that no one likes to be forced, to stop smoking, change diet, and ultimately change behaviour, as we are seeing in the actual pandemic.

However, when evidence is given, and a choice is provided individual citizenship becomes crowdsourcing to tackle big problems. No one wants to be a patient if it can have the evidence to choose not to be it with small nudges. From this concept and building on AI self-learning, a personal health architecture of choice is needed



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to create evidence on the health path and provide prospective evidence on effects to empower individual change within an AI self-learning architecture of choice. A path we need to travel.”

Dr. Jose Sousa, PhD, was the Manager of the Advanced Informatics Core Technology Unit in the Faculty of Medicine, Health and Life Sciences (FHMLS) at QUB. He obtained his PhD under Prof. Ricardo Machado (University of Minho, Portugal) and Prof. Jose Mendes (University of Aveiro, Portugal) supervision at the University of Minho, Portugal on developing complex network models to study software usage alignment with the project requirements. Previously and during his PhD he worked as Information Systems Director at I3S, a research institution of the University of Porto (i3.sup.pt) where he deployed and managed all the IT infrastructure as well as deploying and developing software to support management and research operations. He was a collaborator of HDRUK – Swansea/QUB substantial site as AI researcher and actively working with QUB Centre for Public Health as part of the QUB support to Northern Ireland Public Health response to pandemic where he has developed self-learning AI on publicly available and self-reporting data. He also has worked on genetic alignment modelling and on mining socio-technical systems.



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