TEACHING IN THE SPOTLIGHT:
Learning from Global Communities

3 - 5 July 2018

Conference programme
ST4.2a: Virtual machines: Experience of using Google Cloud Compute Engine for teaching undergraduate courses
Dr Rich Boakye and Dr Jacek Kopeczyk, University of Portsmouth
Oral presentation, Room 227
The University of Portsmouth has been integrating cloud computing into all courses within the School of Computing for the last five years. As instigators of the project, Drs Boakye and Kopeczyk will reflect on the approach taken and their experiences. The use of 'Virtual Machines' to deliver digital services has become commonplace in STEM industries. Graduate familiarity with these technologies is becoming as necessary as desktop computer skills were 20 years ago. We expect this session will be of interest to educators who know little or nothing about cloud computing, but who realise that it is becoming increasingly important for their students to have access to and experience of running cloud based systems. Five years ago we began a pilot project to see if we could use 'the cloud' to deliver our dream of 'one server per student' - a virtual computer that students can use, experiment on, play with, and break, without fear of permanent damage. We will reflect on what we did, what we learned, what worked, and what still needs more work.

ST4.2b: Augmented reality: Developing and utilising accelerAR to communicate the physics of particle accelerators
Dr Chris Edmonds, University of Liverpool
Oral presentation, Room 227
Augmented reality (AR) made its debut in 1968. Almost 50 years later, the technology has finally matured – relatively low cost headsets and simplified workflows for creating AR enhanced content are breaking down the barriers to including AR in science education. Join us as we present our own experiences of developing and utilising accelerAR - an app designed to communicate the physics of particle accelerators.

ST4.2c: Learning Parasitology through virtual clinical case studies: The DMU e-Parasitology project
Dr Antonio Peña-Fernández, De Montfort University, Dr Fernando Bomeny, Universidad Miguel Hernández de Elche, Soledad Fenoy, Universidad Pablo CEU and Dr María Ángeles Peña, Universidad de Alcalá
Oral presentation, Room 227
A novel online package for teaching and learning human parasitology named DMU e-Parasitology is being co-developed by EU academics at De Montfort University (DMU). Content currently covered includes virtual clinical case studies with a microscope. 90 fourth year pharmacy students from University Miguel Hernandez provided comprehensive feedback on the first case study, which contained a short medical history of an HIV-positive male university student severely affected by amoeba infection. Students needed to reflect and critically think to reach diagnoses, propose additional diagnostic techniques and treatment. Ninety percent of students reported gaining appropriate knowledge on pathology, prevention and treatment.

ST4.3a: YES! The commercialisation game that builds entrepreneurial competences in STEM early career researchers
Dr Lorna Treanor, Nottingham University Business School
Oral presentation, Room 229
STEM research breakthroughs address societal challenges when commercialised. YES (Young Entrepreneurs Scheme) is an experiential learning intervention aiming to address the deficit of STEM ECRs engaging in commercialisation by facilitating their development of entrepreneurial competences (Rasmussen and Wright, 2015). In its 22 year, YES evaluations after 10, 15 and 25 years show it positively impacts upon participants’ entrepreneurial competences and activities. This presentation outlines the YES pedagogy, participant outcomes, and, the need to mainstream provision and encourage faculty support for entrepreneurship interventions.

ST4.3b: Utilising the teaching of international formal technical standards to inspire confidence in networking students
Gill Whitney and Uzama Arusi, Middlesex University
Oral presentation, Room 229
Networking students at Middlesex University traditionally make use of standards as paraphrased facts in core texts. By removing mention of the authors or creation method, the students are enabled to learn the facts but not to engage with the concept of experts (real people) working together. Photos of standardisers were used to emphasise how their varied backgrounds matched those of the students. Henceforth by changing our teaching method we have enabled the students to consider themselves to be future writers of standards as well as future users. This approach was adopted to support the students' employability by increasing their confidence.

ST4.3c: E-Learning: An alternative tool for enhancing students' learning journey in higher education
Dr Ravjeet Kour, Coventry University
Oral presentation, Room 229
This presentation will reflect on research that shows that the use of different e-learning tools can encourage the active participation of students and hence move away from the ideology of STEM being a 'difficult' subject. The second part of the paper will summarise the evidence-based practices used for a smooth transition from foundation to first year in the university and study success.