FLAN MEETING AGENDA

26th November 2021 | 14:00 (UTC)

Hosted online by the Raspberry Pi Foundation

#PiAndFLAN

Join Zoom Meeting:

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Meeting ID: 983 9943 5355

Passcode: 701151

Time	Speaker	Title
14:00	**Martin O'Hanlon**	Welcome to the FLAN hosted by the Raspberry Pi Foundation
14:15	Jonathan Dickins	The influence of screencast video content on learner retention in MOOCs
14:45	Mike Sharples	Generative AI and Education
15:15		Break
15:30	Tim O'Riordan	Developing a computational approach to evaluating learner comments
16:00	Qiongqiong Wang	Exploration on learners' attitude on the relationship between peer feedback and student engagement in MOOCs- A case study
16:30	Mac Bowley Ben Garside	Rock, Paper, Scissors and Machine Learning
16:55	Martin O'Hanlon	Close

ABSTRACTS

The influence of screencast video content on learner retention in MOOCs

Jonathan Dickins

Prior research has demonstrated that a low proportion of enrolled learners typically reach the later stages or end of massive open online courses (MOOCs). The online nature of MOOCs allows for learning content to be presented in different formats, with videos an especially prevalent medium. Course creators must decide appropriate video formats for different contexts, but there is little research into the influence of different formats of videos on learner retention in online courses. The likelihood of learners dropping out or ending their session following different formats of video content was studied, with a focus on screencast versus non-screencast video content as learners progressed through the course. This research applied a learner analytics approach including over 200,000 interactions with videos from 50,000 enrolled learners in online courses for computing educators. Learners were significantly more likely to end their session or drop out completely following a screencast than a non-screencast video step. This effect was observed at all stages of a course, although there was some evidence that the effect was greater in the early stages of courses. These findings are discussed in the context of the practicalities that screencasts require of learners and the decisions course providers must make when deciding on video formats for their courses.

Generative AI and Education

Mike Sharples

Microsoft has invested over $1 billion in generative AI systems, including GPT-3 and its own Megatron-Turing (sic). Each is a general-purpose program that can generate stories, blogs and articles, translate and summarise texts, and answer questions. Applications in education include chatbots, question and answer generators, summarisers, and automated essay writers. Implications include new ways to assist creative writing, designing virtual students, and potentially giving real students powerful software that can answer exam questions and generate essays. The main limitation of such systems is that they are unable to reflect on what they have written. Generative AI has reached that dangerous point where computers can generate convincing text, but the software lacks common sense and moral purpose. Should we welcome these systems as aids to creativity? Or try to keep them out of the hands of students?

Developing a computational approach to evaluating learner comments

Tim O'Riordan

Supporting learners is a critical part of MOOC moderators' work, and identifying learners' critical thinking is an important part of this process. As many thousands of learners may engage with comment forums, providing support in this environment is a significant challenge for the small numbers of moderators typically engaged in this work. To address this, I report on 3 studies I have undertaken which seek to determine the reliability of established coding schemes used for pedagogical content analysis of online discussions, establishing associations with these schemes and linguistic and other indicators of critical thinking. I develop a simple computational method of classification, and evaluate an interview-based case study, where this method is applied to an on-going MOOC. The method achieved good reliability when applied to a test data set, and when applied to comments in a live MOOC and evaluated by MOOC moderators, it was considered to have provided useful, actionable feedback

Exploration on learners' attitude on the relationship between peer feedback and student engagement in MOOCs- A case study

Qiongqiong Wang

To explore how to design and implement peer review (PR) to improve specific types of students' engagement under the context of MOOCs, a qualitative case analysis research and inductive thematic analysis were employed to analyze the secondary data collected from the Blended and Online Learning Design (offered by UCL Knowledge Lab) on FutureLearn. Findings were mainly on five positive attitudes, four concerns, and four PR suggestions. Findings provided valuable indications for MOOCs stakeholders, such as course designers, teachers, platforms, and policy-makers, to better design and implement PR in MOOCs so as to improve student engagement, better learning experience, and reduce dropout rate.

Rock, Paper, Scissors and Machine Learning

Mac Bowley, Ben Garside

Join the Raspberry Pi Foundation's Mac Bowley and Ben Garside, writers of the new Introduction to Machine Learning and AI course, for a practical activity taken straight from the course. Train your own Machine Learning model that you can use to play rock, paper, scissors against your computer. Using Google's teachable machine you will provide training images with your webcam, explore the parameters used to train a model and then put your model to the test to see how well you trained it. You will see just how easy it is to get hands on with Machine Learning.