Harnessing The Wisdom of Crowds

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ABSTRACT

The Smartly-assembled, Wiki-style Argument Marshalling (SWARM) project was funded by the US Intelligence Advanced Research Projects Activity (IARPA) as part of the Crowdsourcing Evidence, Argumentation, Thinking and Evaluation (CREATE) program. The project formally commenced in January 2018 and has been awarded (up to $19m). The SWARM is one of 4-projects funded globally through the IARPA CREATE program. These projects are tasked with suporting improved reasoning to aid the intelligence community by leveraging the wisdom of crowds. Whilst previous IARPA programs have demonstrated the benefits in leveraging the wisdom of crowds to get improved answers, the actual reasoning and deliberation in what makes a good answer remains unclear. This is the primary goal of SWARM.

The evaluation of the SWARM platform and the other platfoms will be undertaken by an independent crowd managed by IARPA and their Test & Evaluation team. This crowd will be organised into separate teams. Each team will be assigned a set of questions that require reasoning and evaluation to come up with the most highly regarded answers over several months, i.e. those answers (hypotheses) with the best reasoning and presentation.

This presentation will cover the overarching goals of SWARM and the underpinning technical solutions that have been developed. This includes the mobile applications that have been developed to encourage crowd participation. The talk will also briefly include early (non-funded SWARM work) exploring the textent that deep learning approaches can be used for automation of the assessment of collective reasoning.

ABOUT THE AUTHOR(S)

Professor Richard O. Sinnott is the Director of eResearch at the University of Melbourne and Chair of Applied Computing Systems. In these roles he is responsible for all aspects of eResearch (research-oriented IT development) at the University. He has been lead software engineer/architect on an extensive portfolio of national and international projects, with specific focus on those research domains requiring finer-grained access control (security). He has over 300 peer reviewed publciations across a range of applied computing researh areas.