

Title: PhD studentship in extreme citizen science - development of data collection tools with non-literate participants

Project Description

Applications are invited for one PhD studentship as part of the European Research Council (ERC) funded project named ECSAnVis (Extreme Citizen Science: Analysis & Visualisation) aimed at a developer. Citizen Science is the participation of members of the public in a scientific project, from shaping the question, to collecting the data, analysing it and using the knowledge that emerges from it. The challenge of Extreme Citizen Science is to enable any community, regardless of literacy or education, to initiate, run, and use the result of a local citizen science activity, so they can be empowered to address and solve issues that concern them. Over the past 4 years, the Extreme Citizen Science (ExCiteS) research group at UCL has demonstrated that non-literate people and those with limited technical literacy can participate in formulating research questions and collecting the data that is important to them. Extreme Citizen Science: Analysis and Visualisation (ECSAnVis) takes the next ambitious step of developing geographical analysis and visualisation tools that can be used, successfully, by people with limited literacy, in a culturally appropriate way.

For more information on ExCiteS and ECSAnVis, please visit [here](#) and [here](#).

Studentship Description

The ExCiteS research group has been developing [Sapelli](#) since 2012 - this is a platform that facilitates data collection across language or literacy barriers through highly configurable icon-driven user interfaces. The successful candidate will join a team of anthropologists, ecologists, geographers, computer scientists and designers and focus on extending the undertaken research work. This will include the design, prototype and implementation of Sapelli components that answer the needs and wishes of participants in citizen science projects. The research will mainly include aspects of data collection such as data validation, user authentication and designing user interfaces for non-literate participants. We will specifically focus on engagement of non-literate people and we need to understand how the process, from data collection to analysis, can be made meaningful and useful for their everyday life. The project will include working with non-literate forest communities in central Africa and seek to enable these vulnerable communities to conduct their own environmental monitoring or mapping. For more information, see papers by Stevens et al. 2014 (<http://discovery.ucl.ac.uk/1431647/>) and Vitos et al. 2017 (<http://dl.acm.org/citation.cfm?id=2998242>).

Person Specification

The applicants should possess a good honours degree (1st Class or 2:1 minimum) in a relevant discipline such as Computer Science, Electronic Engineering or Human-Computer Interaction. The ideal candidate should also hold an MSc in Computer Science, Human Computer Interaction, Human Factors, or Geographical Information Science and must have proven experience and skills in Software Engineering or Human Computer Interaction.

The ideal candidate should have excellent verbal and written communication skills and should be able to work as part of a team to design, develop and deploy software prototypes. Preferably, the candidate should have experience in programming in Java and Android and have a good understanding of code management systems such as GitHub. Skills in using Python would also be desired. Finally, since the case studies might involve travelling to central Africa, the candidate should have a willingness to travel in remote forest locations and thus French language skills would be desirable. The ability to be patient and understanding with local people is essential in this regard.

Eligibility

Applications are invited from UK and EU citizenship holders.

Start Date

Between September and December 2017, at time that is suitable to the candidate. A successful candidate will be asked to work with the Extreme Citizen Science group for two weeks (expenses covered) before registering to the PhD programme.

Application Procedure

Applicants should send a cover letter, 2-4 page research proposal, examples of academic writing (e.g. BSc or MSc dissertation), code outputs from past work and CV to Michalis Vitos (michalis.vitos@ucl.ac.uk) and Judy Barrett (judy.barrett@ucl.ac.uk). The cover letter should include a personal statement explaining your interest in citizen science, why you are interested in our project and how you would see your work integrated into ExCiteS vision and activities. You are welcome to contact Prof Muki Haklay (m.haklay@ucl.ac.uk) or Michalis or any other ExCiteS members with queries about your proposal or for an informal conversation. Deadline for application - 21st July 2017.

Funding Notes

Duration – 3 years

Funding –The scholarship covers UCL student fees at the Home/EU rate and provides a stipend of £16,553 per annum tax free. Travel expenses and research equipment will also be provided to the successful candidate.

Funding Body: European Research Council (ERC) and UCL.