The Second ESCAPE Citizen Science Workshop

Report of Contributions

https://indico.in2p3.fr/e/24676

Contribution ID: **1** Type: **not specified**

Adventures in the Zooniverse

Wednesday, September 15, 2021 1:25 PM (25 minutes)

Presenter: Prof. LINTOTT, Chris (University of Oxford)

Session Classification: Citizen Science Showcase

Contribution ID: **2** Type: **not specified**

GWitchHunters - A new citizen science project for Gravitational Wave Science

Wednesday, September 15, 2021 1:50 PM (25 minutes)

Gravitational waves have opened an entirely new window on the Universe, paving the way to a new era of multimessenger observations. Ground-based detectors such as Advanced LIGO, Advanced Virgo and KAGRA, are extremely sophisticated instruments, with the formidable task of measuring spacetime deformations smaller than 10^-18 meters, as those produced by gravitational wave sources like the coalescence of black holes and neutron stars. This citizen science project, developed within REINFORCE (a "Science With And For Society" project funded under the EU's H2020 program), aims at improving our knowledge of the noise sources in the detectors, with the ultimate goal of making them more sensitive. We will present the GwitchHunters project, its development on Zooniverse and the key tasks that will engage citizen scientists in this new endeavour at the frontier between participated science and the study of the Universe.

Presenter: Prof. RAZZANO, Massimiliano (University of Pisa and INFN-Pisa)

Session Classification: Citizen Science Showcase

Contribution ID: **3** Type: **not specified**

Mining knitting and crochet patterns, 1900-1949

Wednesday, September 15, 2021 2:55 PM (25 minutes)

Domestic magazines issued between 1900 and 1949 are a vital cultural repository of knowledge about ordinary women's daily lives during a period of upheaval, both globally and in Britain. They are also hugely under-researched, owing in part to two major methodological challenges: collecting data from vast texts, and analysing this data in ways that are sufficiently representative, nuanced, and succinct. This project will trial new approaches to addressing these challenges. Led and implemented by Dr Eleanor Reed, the project will be hosted by online citizen science platform Zooniverse, created using the Zooniverse Project Builder tool, and will test the feasibility/value of crowdsourced data collection as an approach to gathering quantifiable data from magazines in the Knitting & Crochet Guild's Collection, by harnessing citizen input to classify images from 1900-1949 domestic magazine knitting/crochet patterns. The Knitting & Crochet Guild (KCG) is a volunteer-run, subscription/donation-funded national educational charity dedicated to the study/practice of UK domestic knitting and crochet. Its collection of knitting/crochet-related items is the UK's largest; free to members and thus an incentive to join, patterns are among its greatest assets. Throughout 2019, Dr Reed undertook an AHRC TECHNE Creative Economy Engagement Fellowship researching knitting/crochet patterns in the KCG's collection of 400+ 1900-1949 domestic magazines. Each pattern will be classified by 5 different volunteers; Zooniverse will record the majority answer to each question; data will be aggregated to produce a database that Dr Reed will use to quantitatively map broad shifts over time in, e.g., the popularity of knitting vs. crochet, the kinds of items/for whom readers were urged to knit, the yarn market. Zooniverse project discussion boards (a built-in feature) will facilitate further knowledge exchange. Participants in this project will be drawn from the KCG.

Presenter: Dr REED, Eleanor (Brunel University (Division of English))

Session Classification: Citizen Science Showcase

Contribution ID: **4** Type: **not specified**

Welcome to the Etchiverse: A family of citizen science projects for producing expert-quality annotations for biomedical volume electron microscopy data

Wednesday, September 15, 2021 3:20 PM (25 minutes)

The current generation of volume electron microscopy techniques routinely produce datasets in the terabyte regime. Modern computational techniques such as deep learning have shown a great deal of promise for automating the analysis of such data, but a major limitation is the lack of availability of ground truth training data which is often painstakingly generated manually by researchers. Our "Etch a Cell" projects on the Zooniverse have demonstrated that non-experts can produce data of sufficient quality for both direct downstream analysis and as training data for deep learning. This unprecedented quantity of high-quality training data raises tantalising prospects for genuine automation of in-depth analysis across a range of experiments.

Presenter: Dr JONES, Martin (The Crick Institute)

Session Classification: Citizen Science Showcase

Contribution ID: **5** Type: **not specified**

Citizen Science for Solar Physical Datasets: Towards Machine-learned Insights into Solar Flares

Wednesday, September 15, 2021 3:45 PM (25 minutes)

In this presentation, we propose a new citizen science initiative involving citizen scientist who can help label imagery for computer vision applications for solar physics research. The end goal of this project is to develop a state-of-the-art ML model for the identification and semantic segmentation of solar flares in H alpha images.

Presenter: CHEN, Thomas (Association for Computing Machinery)

Session Classification: Citizen Science Showcase

Contribution ID: **6** Type: **not specified**

Zooniverse transcription tour: lessons learned + new features

Wednesday, September 15, 2021 2:15 PM (25 minutes)

Presenter: Dr BLICKHAN, Samantha (Zooniverse / The Adler Planetarium)

Session Classification: Citizen Science Showcase

Contribution ID: **7** Type: **not specified**

CitSci-Zooniverse Platform Integration

Wednesday, September 15, 2021 4:25 PM (25 minutes)

Presenters: Dr NEWMAN, Greg (Colorado State University); Dr WONG, Mona (San Diego Supercomputer Center)

Session Classification: Citizen Science Showcase

Contribution ID: **8** Type: **not specified**

Building a project using the Zooniverse Project Builder

Wednesday, September 15, 2021 4:50 PM (55 minutes)

During this session we will demonstrate, step-by-step, how to build a new project using the Zooniverse "Project Builder" interface. The Project Builder allows researchers to design, create, deploy and manage a simple Zooniverse projects using a friendly graphical user interface.

We will explain how to create a new project, add tutorial and pedagogical material, set up a classification workflow and upload subject data.

Presenter: DICKINSON, Hugh (The Open University)

Session Classification: Citizen Science Showcase

Contribution ID: **9** Type: **not specified**

Discussion and Wrap Up

Wednesday, September 15, 2021 5:45 PM (20 minutes)

Session Classification: Citizen Science Showcase

Contribution ID: **10** Type: **not specified**

Logistics

Wednesday, September 15, 2021 1:00 PM (5 minutes)

Presenter: DICKINSON, Hugh (The Open University)

Session Classification: Welcome

Contribution ID: **11** Type: **not specified**

Welcome

Wednesday, September 15, 2021 1:05 PM (20 minutes)

Presenter: Prof. SERJEANT, Stephen (The Open University)

Session Classification: Welcome