

# What Do We Know about Young Volunteers?

## An Exploratory Study of Participation in Zooniverse

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### INTRODUCTION

Community and Citizen Science (CCS) is an increasingly popular activity enacted either in the field or online. Volunteers participate in research activities such as data processing and analysis by, for example, identifying plants and animals. In this paper we examine young people's participation in online CCS projects hosted on the Zooniverse platform. This is an exploratory study, the first of its kind that focuses on young people, mainly 16–19 years old. It uses data analytics and visualisation techniques to capture participation in online CCS.

### ZOONIVERSE

*Zooniverse is an online Community and Citizen Science platform that asks volunteers to classify and annotate images, video files, and audio files. The goal is to enable research that would not be possible, or practical, by any other means. So far the platform has engaged over two million people worldwide on over 350 citizen science projects covering a diverse range of disciplines, from astronomy and ecology, to biomedical science and the humanities*

### AIMS OF THIS STUDY

Our aim was to use data analytics and visualisation techniques to examine participation in online CCS, and try to answer the following questions:

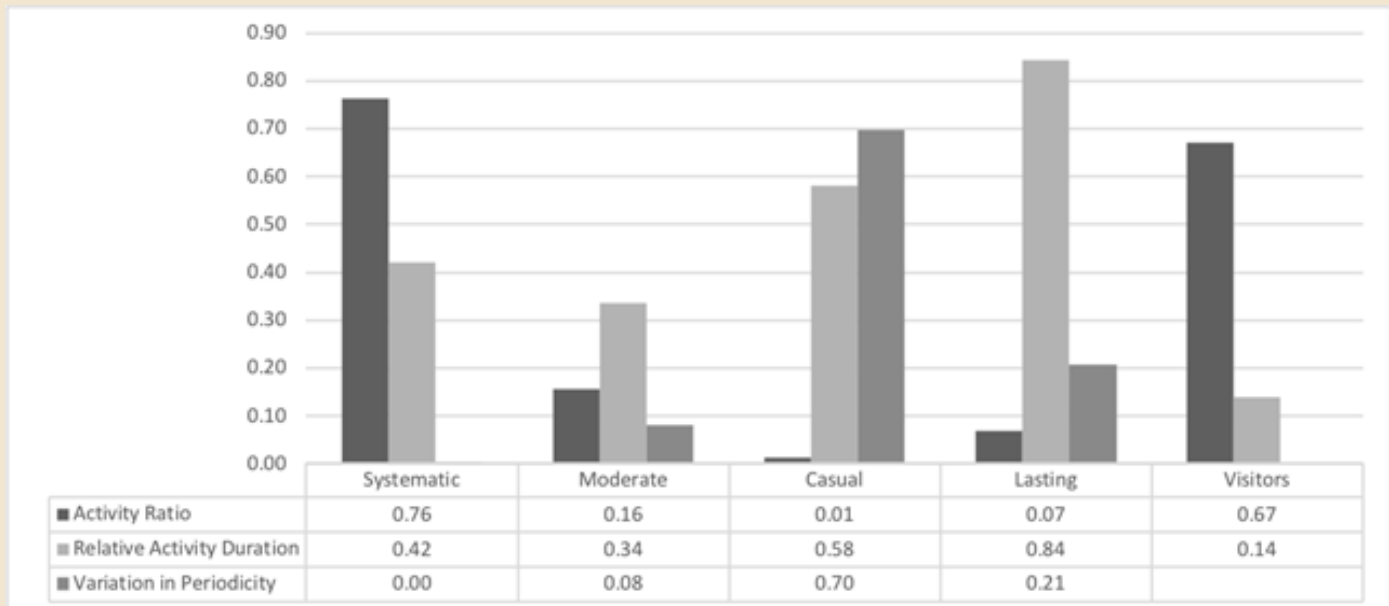
- *What does young people's participation look like in CS projects?*
- *What Zooniverse projects do young people choose to participate in?*
- *What Zooniverse projects do young people choose together?*

### WHAT WE FOUND

Findings revealed five distinct engagement profiles characterising young people's participation:

- Systematic - volunteers in this group visited the platform at regular time intervals and were very active during their stay on Zooniverse. (5 young people)
- Moderate - volunteers' visits were at a constant rate, yet they were neither linked to the platform for a very long time nor very active during that period. (16 young people)

- Casual - volunteers visited irregularly and were not very active during the period that they were linked to the platform. (8 young people)
- Lasting - volunteers remained linked to Zooniverse the longest, did not visit the platform very regularly, and had a small number of active days during the long period that they were linked to Zooniverse. (40 young people)
- Visitors - volunteers contributed to projects once or twice only, with active days during their short stay in Zooniverse. (34 young people)



The three most popular projects among the young volunteers studied were:

- Project Plumage - A project from NHM London exploring bird colour in museum specimens
- The Plastic Tide - A project designed to help train an AI to spot plastics in drone images of beaches
- Camera CATalogue - A camera trap project aimed at studying and protecting big cats

The three projects that were most often chosen in combination were:

- Project Plumage - The position of Project Plumage is artificially high on both of these lists as it was the initial project that was targeted for recruitment into this study.
- The Plastic Tide
- Notes from Nature - A project for transcribing labels and annotating images of natural history museum specimens worldwide

## RECOMMENDATIONS

- It is important to understand that youth volunteers on citizen science projects follow many distinct patterns of participation.
- It is important to understand who the young people are and design or make modifications to citizen science projects in ways that will make it easy for them to take part and enable systematic engagement.
- Citizen science projects should diversify their recruitment strategies to target young people of different ages including volunteers younger than 16 years old.

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