



# **LEARN CitSci:**

## **What Do We Know about Young Volunteers? An Exploratory Study of Participation in Zooniverse**

**Christothea Herodotou**  
**@herodotouc**



ENTER FOR  
**COMMUNITY  
CITIZEN SCIENCE**

Home | **Current Projects** | People | Publications | Blog | Contact | Donate

## LEARN CITSCI

The Learning and Environmental science Agency Research Network for Citizen Science (LEARN CitSci) Project is a four-year international collaborative research project that aims to understand how young people develop Environmental Science Agency through their participation in Citizen Science programs at Natural History Museums. Principal Investigators from the USA and UK include Citizen Science practitioners at The Natural History Museum Los Angeles County in Los Angeles, The Natural History Museum in London, and the California Academy of Sciences in San Francisco, and Educational Researchers from UC Davis, Open University, and the University of Oxford. LEARN CitSci is funded through the [Science Learning+ initiative](#), a partnership between the National Science Foundation and the Wellcome Trust with the UK Economic and Social Research Council (ERSC).

### Organizations involved:

- [University of California Davis](#)
- [The Natural History Museum in London](#)
- [The California Academy of Sciences](#)
- [The Natural History Museum Los Angeles County](#)
- [The Open University](#)
- [Oxford University](#)

SIGN UP FOR OUR  
NEWSLETTER



SPOTLIGHT ON  
YOUTH LEARNING

**FOLLOW**

@UCDAVISCCS

# LEARN Cit Sci

---



What is the nature of the learning environments, and what activities do youth engage in, when participating in NHM-led citizen science?

**To what extent do youth develop the following three science learning outcomes:**

- a) an understanding of the science content
  - b) identifying roles for themselves in the practice of science
  - c) developing a sense of agency for taking actions using science
- through participation in NHM-led citizen science programs?**

What program features and settings in NHM-led citizen science foster the three science learning outcomes (a,b, and c above)?

# Online citizen science: Zooniverse

---



## FEATURED PROJECT



- *Contributory* forms of participation (Shirk, 2012)
  - processing, rather than collecting data

Types of data processing activities/tasks:

- response to a question
- free text entry tasks
- marking tasks
- identification tasks

# Research Objectives

---

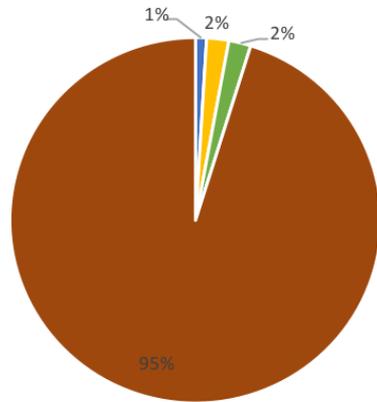


- What does young people's participation look like in CS projects?
- What Zooniverse projects do young people choose to participate in?
- What Zooniverse projects do young people choose together?

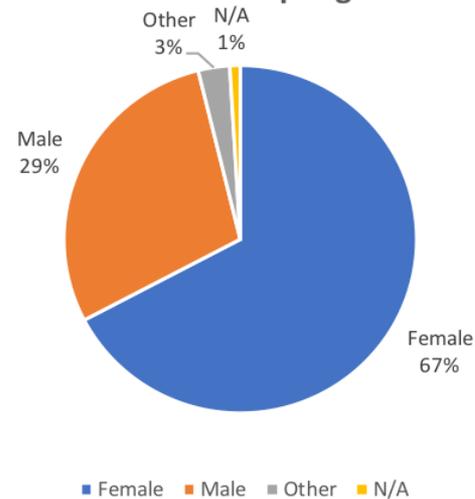
# Who are the young people?

Zooniverse users - age group

■ Younger than 10 ■ 10-12 ■ 13-15 ■ 16-19



Zooniverse user per gender

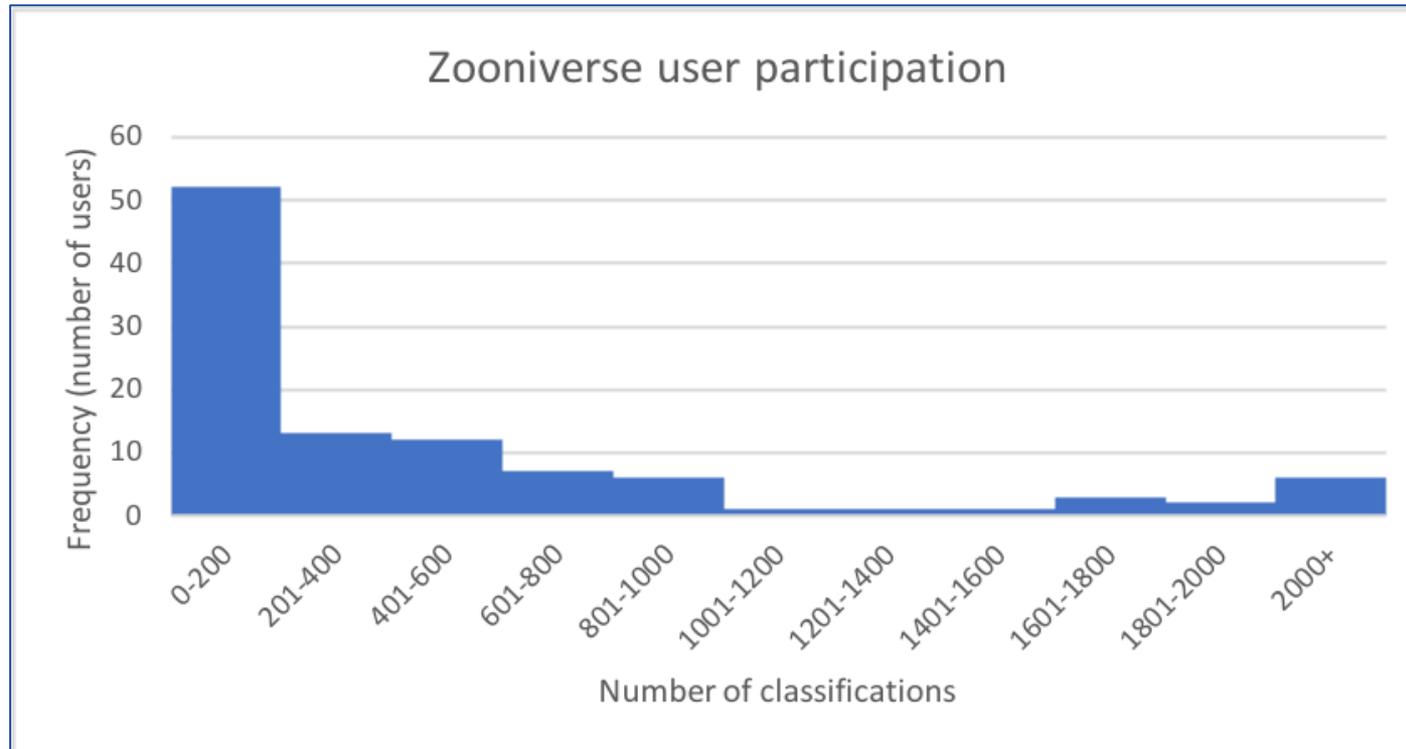


N=104

- Participation in 148 projects
- 66,250 total contributions



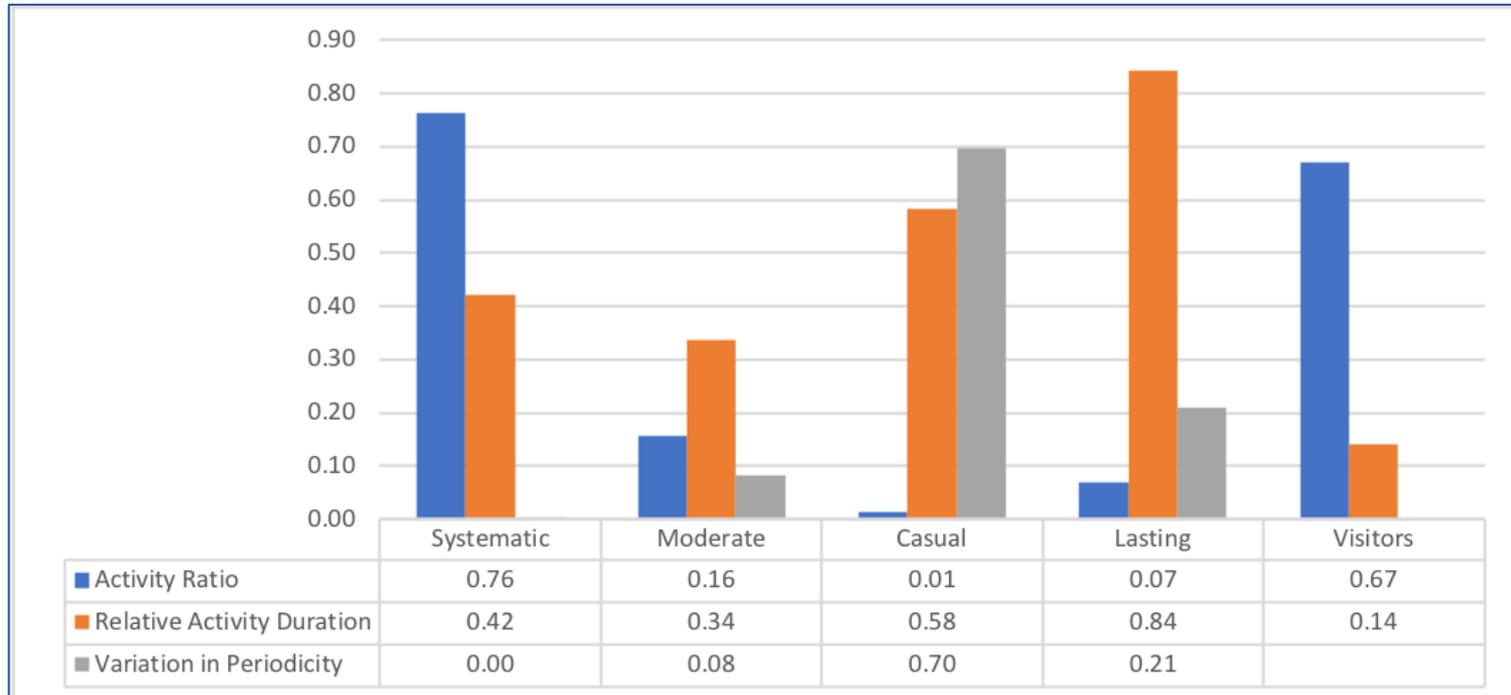
# What are young people doing?



- 50% of the users had  $\leq 200$  classifications
- Median: 199 classifications
- 12 super-users with more than 1,330 classifications

No gender differences in number of contributions ( $p=.657$ )

# What are young people doing?



- Systematic: regular visits and a lot of tasks (n=5)
- Moderate: regular visits and a few tasks (n=16)
- Casual: not regular visits and a few tasks (n=8)
- Lasting: members for a long time but not very active (n=40)
- Visitors: one or two visits only, yet very active (n=34)

# Conclusions

---

- One of the few studies examining young people's participation in online citizen science programmes
  - Young people, 16-19
  - Visitors than systematic participants
  - Unclear which projects they prefer

Lack of online citizen science projects designed around the needs, preferences, and skills of young people, <16 years old, with explicit learning goals.



Thank you!

@LEARNcitsci

@ herodotouc

[christothea.herodotou@open.ac.uk](mailto:christothea.herodotou@open.ac.uk)