One Does Not 'Simply' Launch fa Citizen Science Project: Reflections on Zooniverse, a Multi-Domain Science Platform

(Authors removed for reviewing)

ABSTRACT

Author Keywords
Citizen science, crowdsourcing, interface design

ACM Classification Keywords
H.5.m. Information Interfaces and Presentation (e.g. HCI): Miscellaneous

INTRODUCTION
Web-based "citizen-science" projects have enabled tens of thousands of untrained human volunteers to contribute to open scientific problems across a variety of domains. The handful of successful systems have demonstrated that, when designed well, citizen science applications can be valuable both to participants, as educational tools and cognitively-stimulating puzzles, and to scientific researchers with large data sets and complex problem spaces.

Designing effective citizen science systems that are mutually beneficial to both participants and researchers, however, can be daunting for even seasoned HCI practitioners. The reasons are several: first, due to the emerging nature of the field, *best practices* are not yet well established. Second, unlike in types of human computation that apply extrinsic motivation (e.g., rewards) to drive participation, most citizen participants are intrinsically motivated to contribute to citizen science projects. However, since such motivations are typically personal and idiosyncratic, designing to sustain prolonged relatioships is particularly challenging. Finally, participants naturally like to engage with citizen science systems in different ways, and feature a diversity of natural competencies, which is manifested in some people being simply much more adept at some tasks than others.

In this paper, we contribute a detailed case-study of a unique citizen-science platform which expanded from a single domain experiment to a general, open platform for launching and hosting citizen science projects, known as Zooniverse, over its five year evolution. The Zooniverse framework team has derived significant has been successively refined and scaled as the variety of tasks and number of participants have increased. At its current state, currently having launched X distinct applications for Y scientific domains, including astronomy, zoology, cell and marine biology, archaeology and paleontology. This platform represents a unique [**?**]

BACKGROUND: BRIEF HISTORY OF ZOONIVERSE
For the CSCW readers, outline the history of the development of the system including a detailed description

OBSERVATIONS THROUGH ITERATIONS
I was thinking put key design observations here wrelating to how to cross-domain citizen science

D MYTHS OF DESIGNING FOR CITIZEN-SCIENCE
I was thinking put key design observations here

Myth X: Putting new users through a "tutorial" is a good idea

Myth Y: Gameification keeps people motivated

Myth Z: Participants become domain experts

RELATED WORK
Connect related work here with FoldIt, etc

DISCUSSION

CONCLUSION

ACKNOWLEDGMENTS
Acknowledgments omitted for blind review.

REFERENCES
1. Moore, J., Gay, P., Hogan, K., Lintott, C., Impey, C., and Watson, C. Facebooking citizen science with the zooniverse. In *Bulletin of the American Astronomical Society*, vol. 43 (2011), 15813.