Citizen science and discovery in online environments

Work plan

1. Data checkout for projects (Shakespeare's World, Serengeti, Planet Hunters?)
2. Project managers pick out a couple of threads where they have identified some sort of discovery process.
3. Iterative computational analysis where the relevant threads/content is identified in the datasets. Here also some quantitative analysis is required.
4. Qualitative analysis of selected forum data.
5. Write together manuscript.
6. Submit.

Introduction

Discovery is essential to scientific progress. It is also one of the reasons that the sciences and humanities attract large interest from the general public and one of the reasons for why science is the preferred method of obtaining new and useful knowledge in society.

By convention, scientific discoveries have been closely associated with educated or professional scientists breaking new grounds by tediously, and with the aid of expert knowledges, working his or her way towards unveiling the unknown territories that have escaped human knowledge up until now.

However, as citizen science projects have begun inviting non-scientist into the immediate work with source data and observations, discovery of new phenomena have been extended to a much larger crowd of people, many of them lacking formal training or education, but often being devoted to the subject matter of what is being studied.

Purpose and research questions

The purpose of this article is to understand how discoveries are made by non-scientists in online forum environments. From the perspective of how volunteer contributors discuss and analyse scientific data, the following questions can be posed:

1. How are phenomena and data identified as novel discoveries?
2. What additional/contextual knowledge is required to define a discovery?
3. How are new discoveries understood in terms of attribution and recognition?