

In the MOOD for Citizen Psych-Science

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Areas of citizen science interest:

We are interested in volunteers' motivations and engagement patterns. We are also interested in appropriating available technologies and methods for citizen science. We would like to give a short presentation about our project 'Errordiary' (errordiary.org), where volunteers contribute by tweeting about their personal experiences of making errors and the strategies they use to mitigate these errors. Based on our interviews with volunteers, we consider the pros and cons of using Twitter as a data collection method and reflect on how Errordiary differs from other citizen science projects.

Abstract:

People make funny, frustrating and fatal errors on a daily basis. People can also create and apply strategies to avoid and mitigate error – this is called cognitive resilience. Researchers at UCLIC started the Errordiary project in 2009 as a way of raising awareness of human error research. Errordiary (www.errordiary.org) is an online public repository of the errors people make and the cognitive resilience strategies that they use. People contribute to it by using the *#errordiary* *#rsdiary* hashtags through Twitter. Over 130 people have contributed so far. The project has allowed researchers to gain a better insight into the resilience strategies that people use (Furniss et al., 2012). It has also been used as a real-life data set for teaching students about the psychology of human error (Wiseman, 2012).

During August 2013 we interviewed 8 Errordiary contributors (5 female, 3 male) to find out more about their motivations for taking part. Most of our participants described their contributions as "occasional", where Errordiary contributions varied from once a week, once a month, to once every 6 months. As one participant describes, "I go through a period of not contributing for weeks and then remembering it exists." One reason for this is that contributions are event-driven. People cannot contribute whenever they wish - it has to be once they've committed an error or used a resilience strategy. Some participants described forgetting to contribute. Those that were regular twitter users were more likely to remember. As one participant describes, "I was already sharing errors on Twitter, now it's just adding a hashtag."

The content of the error also had an impact on contributions. Sometimes participants did not tweet an error because they thought others might view their contribution as "mundane" or "not funny." Contributions are visible to a person's Twitter network, which means they are visible to a volunteer's followers that may not know about the project. This makes contributing to Errordiary quite different to

most other citizen science projects, where people contribute within the “safety” of being among like-minded others who share their interests. A couple of participants even described how they had set up a separate Twitter account just for the purpose of contributing to Error diary. This highlights an important issue in using Twitter for data collection, as volunteers make a trade-off between convenience and protecting their privacy.

These findings also highlight some of the ways in which a citizen psych-science project differs from a typical citizen science project. In citizen science usually volunteers collect or analyse data related to their environment (Haklay, 2013). However in Error diary, researchers are asking volunteers to contribute their experiences of error. This means that volunteers are helping to collaborate in research, but at the same time they are the participants of the research. We suggest that this makes contributing to Error diary more personal, and perhaps more sensitive, compared to other projects. The risks associated with sharing errors (e.g. negative perceptions from others, being viewed as incompetent) may counteract a person’s general good will to help researchers.

Overall our study reveals several interesting insights concerning the spectrum of citizen science, and pros and cons in using Twitter for data collection. The Error diary project is currently changing from being an online archive of error to a hub to engage and learn about error. This includes a ‘Discovery Zone’, allowing volunteers to explore research, media and games related to errors. It is now also possible for volunteers to login and contribute via the website – so the project is no longer restricted to Twitter users only. We plan to explore how these changes impact volunteers’ experiences in future research.

References:

Furniss, D., Back, J. and Blandford, A. (2012). Cognitive resilience: Can we use Twitter to make strategies more tangible? Proceedings of ECCE 2012, 96-99.

Haklay, M. (2013). Citizen science and volunteered geographic information: Overview and typology of participation. In D. Sui et al. (Eds.) *Crowdsourcing Geographic Knowledge: VGI in Theory and Practice*, pp.105-122. Springer Netherlands.

Wiseman, S., Gould, S. J. J., Furniss, D. and Cox, A. L. (2012). Error diary: Support for teaching human error. ‘A contextualized curriculum for HCI’ workshop at CHI 2012.