

Project Summary

The impacts of 'next generation' citizen science programs

Project E1: Volunteers

This project will assist in improving the recruitment, participation, training and retention of volunteers in environmental monitoring programs, and identifying outcomes from volunteer environmental monitoring programs and their impact on waterways management.

Volunteers are increasingly important to biodiversity and environmental monitoring in Australia, given the urgent need for extensive data sets to inform the management of sites and species. In the last couple of years, a key trend has been the development and use of smartphones and internet technologies for organising volunteer citizen scientists, managing their data and facilitating interaction.

Melbourne Water is currently increasing its commitment to such 'next generation' digitally-mediated citizen science programs (e.g. the Frog Census app).

There are several key drivers for such technological transformation of citizen science programs:

- increasing volunteer participation, in terms of number and diversity of participants;
- increasing productivity of participants;
- improving data quality and standardisation;
- supporting new forms of interaction amongst participants, scientists, and program organisers.

Whilst there has been some research to date that considers how and to what degree such ambitions for these programs are being achieved, there has been relatively little research into the impacts of this digitalisation on the experiences of participants.

This social science research project will investigate the impacts of such 'next

generation' or digitally-mediated approaches on the experiences of citizen scientists, in particular on the ways in which they experience:

- knowledge production and learning;
- social connections with other participants; and
- connection with nature.

Methods

This qualitative social science research project is currently being developed by the PhD student. It will most likely take a case study approach, identifying and studying in depth several 'next generation' citizen science programs. This may include citizen science programs that are coordinated by Melbourne Water and other environmental agencies.

Data collection may include semi-structured interviews with volunteers and program coordinators, ethnographic observation of volunteers in the field and in digital environments, and analysis of documents and digital content activities.

Outcomes

- informing strategies for recruitment, participation, training and retention of volunteer citizen scientists in environmental monitoring programs
- informing future technological design of digital citizen science programs

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