IRoSiE

Training Materials for Responsible Open Science

Case study 1

Citizen science and privacy of data

SOURCE: Anhalt-Depies, C. et al. (2019). Tradeoffs and tools for data quality, privacy, transparency, and trust in citizen science. *Biological Conservation*, *238*, 108195. https://doi.org/10.1016/j.biocon.2019.108195

Snapshot Wisconsin is a USA-based citizen science project utilizing a network of trail cameras to monitor wildlife. The project was initiated in 2016 by the Wisconsin Department of Natural Resources (DNR). The main aims of the project are collecting essential data to aid in making decisions about wildlife management and fostering a greater connection between the general public and the agency. Citizens interested in taking part in the Snapshot Wisconsin project have the option to register as hosts for photo cameras in privately owned properties. After receiving the necessary training and equipment from the Wisconsin DNR, volunteers are asked to upload photos a few times per year. Afterwards, the volunteers can check out the photos of the animals they have captured through their online profiles and assist in identifying the species present in the images. Any photos that remain unidentified are then shared on a collaborative online platform (snapshotwisconsin.org), where people from all around the world can help identify the animals.

By 2018, the cameras hosted by the Wisconsin volunteers had snapped over 20 million photos, and more than 5800 individuals had registered to participate in the collaborative online animal identification effort. However, from the start of the project, there were concerns raised about the possibility of accidentally capturing images of humans. To decrease this risk, Wisconsin DNR issued guidelines for hosts of cameras on how to avoid areas used by humans. It was also decided that hosts would not see the photos until they were uploaded to the agency and subjected to a proprietary decryption procedure to remove human images. This approach was introduced to prevent privacy violations.

At the same time, the idea of the project was to involve the public more effectively in wildlife management and enhance transparency in wildlife monitoring. Thus, for ensuring project success it is very important to provide photos and data back to volunteers. Nonetheless, granting volunteers unrestricted access to all photos and data before uploading could lead to privacy violations and hinder ensuring a comprehensive dataset. Also, volunteers might lack the motivation to promptly upload photos if their primary interest was discovering the wildlife on their property. This situation presented the Snapshot Wisconsin project with a dilemma: striking a balance between privacy, data quality and open data sharing with volunteers.

Questions for discussion:

1) What are the main privacy concerns raised by Snapshot Wisconsin and other similar citizen science projects?
2) What policies and measures you as citizen scientists and members of the public would implement to mitigate privacy concerns? Prepare your proposal of the measures and justify it.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430

IROSiE

Training Materials for Responsible Open Science

Case study 2

Sharing of sensitive qualitative data

AUTHOR: Kadri Simm, University of Tartu

The Russia-Ukraine war that began in 2022 caused a refugee crisis in Europe, with millions of Ukrainians escaping war zones and settling, at least temporarily, in various countries. In Estonia, scholars working on life stories wish to collect narratives from recent Ukrainian refugees and publish them on an open access project platform. Aside from the academic value of this material, the project can also be seen as a way of recording and safekeeping the Ukrainians' tragic experiences for both them and a wider public. Some participants would like to openly publish their stories of war and escape even under their own names so that their experience can inform the public about what happened and allow scientists to analyse their experiences. However, while the war in Ukraine continues, there is also a simultaneous information war raging, and the refugees' relatives may still be fighting in the former. Further, some refugees might have witnessed war crimes and the possibility exists that these stories could later be used as evidence in a court of law. Further, among refugees, there are children and adolescents whose stories form part of those told by their family members.

Questions for discussion:

1) Imagine that citizen scientists from the community of Ukrainian refugees are involved in this research. Their task will be to participate in the development of interview guidelines and in some cases also performing or helping with performing of interviews. What ethical issues might arise in this process?
2) Participants may be willing to publish their stories of war and escape (even using their real names) so that their experience can inform the public about what happened. Yet there is a war going on, also an information war and relatives of the refugees might still be fighting the actual war. What about the potential misuse of these stories? What kind of harm might this facilitate for the refugees and their relatives? Are there ways to minimize risks?
3) What are the criteria for publishing such life stories as open data?

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101006430