

Data collectors or analysts?

Different engagement profiles in Citizen Science



WT!impact

Knowledge Transfer by
Collaborative Knowledge Construction

Till Bruckermann¹, Hannah Greving², Milena Stillfried³, Konstantin Börner³, Anke Schumann³, Ute Harms¹, Miriam Brandt³

¹ IPN – Leibniz Institute for Science and Mathematics Education, Kiel, Germany

² Leibniz-Institut für Wissensmedien (IWM), Tübingen, Germany

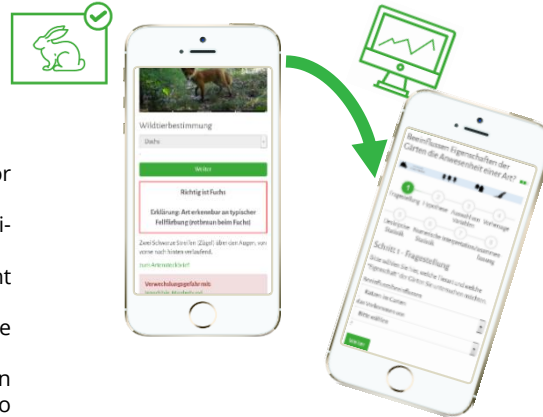
³ Leibniz Institute for Zoo and Wildlife Research (IZW), Berlin, Germany

Background and aims

- Citizen Science (CS) projects provide opportunities for citizens to engage in different scientific activities.
- Interviews have shown that participants are more motivated to engage in data collection than data analysis.
- However, few studies investigated actual engagement patterns related to data collection and analysis.
- Therefore, we studied citizens' actual behavior on the platform of a CS project and analyzed their log file data.
- **Research question:** How does citizens' engagement on the platform differ between scientific activities related to data collection and data analysis?

Methods

- We conducted a CS project on urban wildlife ($N = 397$).
- We set up an online platform for data collection (upload camera trap pictures, identify species), and data analysis (analyze distribution patterns, discuss in forum).
- We measured citizens' behavioral activities with log files.
- We analyzed engagement metrics and clustered them.



Results

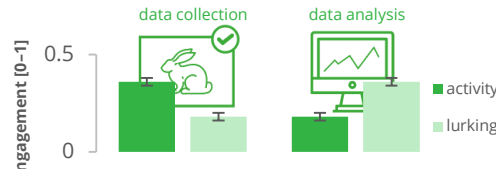


Figure 1. Participants showed higher activity and less lurking in data collection than in data analysis.

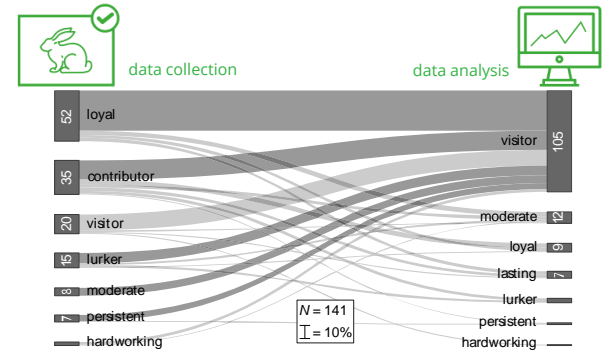


Figure 2. Many participants switched from other profiles during data collection to the visitor profile during data analysis.

Discussion

- In line with previous research, citizens' actual engagement differs between data collection and analysis.
- Citizens who were highly engaged with data collection also analyzed data more readily.
- More research is needed that explains under which conditions citizens stay engaged with data analysis.
- Future research on effects of CS projects should account for citizens' actual engagement.