

Citizen Science – Why not (actually)?

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The 7th Austrian Citizen Science Conference once again showed the high diversity of citizen science in German speaking countries. This editorial gives a brief overview of the many contributions published in the Proceedings of the Austrian Citizen Science Conference 2022.

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1. Introduction to the Austrian Citizen Science Conference 2022

“Why not (actually)?” is a question that permeates citizen science since it’s rise in the middle of the last decade. “Why involve citizens in research?”, was a question asked by many, especially academic scientists when citizen science began to establish itself as a method around 2010. Can citizens without academic training do science? Can the results of citizen science projects contribute to research? Does citizen science have anything to do with science and research at all, or is it just entertainment for citizens? “Why not (actually)?” is the question that is increasingly being asked today. Why not include the local expertise of citizens in research? Why not include the unique perspectives of citizens in projects to get a more complete picture? Why not collaborate with citizens and get them excited about science? Never before has science and the involvement of the public in science been so much discussed as it has been in the last two years. And never before has it been so clearly visible how great the scepticism of people in Austria is towards science [1].

Why not do citizen science to reduce this scepticism about science and show the people involved in these projects how science works? Why not find solutions to our major societal problems by involving citizens? Citizen science will not save the world, but it can make an important contribution if used correctly. Why not provide or open up more funding schemes for citizen science? The past years have impressively shown the compe of citizen science, not only internationally but also in Austria. The Sparkling Science programme [2] funds collaborative projects between research and schools and has been met with great interest both by science and schools. The Top Citizen Science programme [3] shows that citizen science can also be used in basic research. However, it is still difficult to get funding for citizen science projects being an extra-mural institution or a citizen scientist.

The German-speaking citizen science community met at the Austrian Citizen Science Conference in Dornbirn, Vorarlberg, in the four-country corner of Austria, Switzerland, Liechtenstein and Germany, 28 - 30 June, 2022, to exchange views on the latest developments in citizen science and to find answers to the before mentioned questions. In the tradition of the Austrian Citizen Science Conferences, all disciplines and representatives with different institutional backgrounds and of course citizen scientists were present and exchanged ideas at the conference.

This editorial gives an overview of the proceedings of the Austrian Citizen Science conference 2022 and represents a cross section of the diverse contributions and questions that participants discussed during the conference from different perspectives.

2. Overview of proceeding contributions

Several contributions look on citizen science from a theoretical perspective and explore the meta level of citizen science.

Since its rise, citizen science has often been considered a way to democratize research. In their contribution Strähle and Urban provocatively claim “Why citizen science cannot answer the question of the democratisation of science”. Why do citizen science? This question is the basis for two other contributions on the meta level of citizen science. Heinisch took the perspective of researchers conducting citizen science projects in her contribution “Motivation of Austrian

researchers for conducting citizen science and assumed added value for participants”. Finger et al. report what effects citizen science can have on the persons involved in a project in “What do we know about the effects of Citizen Science on Participants' Knowledge?”. In her keynote presentation, Moczek talked about motivations and manipulations in citizen science projects and presents her findings in “I have good news and bad news too. Motivation and Manipulation in Citizen Science Projects”. Stämpfli et al. present the “The 10 Swiss Citizen Science Principles”, that have been developed to sharpen the understanding of citizen science throughout Switzerland, and Höhener and Stämpfli look at the skills people gain through participating in a citizen science project in “The potential of making competences acquired through Citizen Science visible”. Marschalek et al. are investigating the trade-off in participatory research between structural conditions and expectations in “Adapting public funding schemes for participatory research: Managing expectations, overcoming structural constraints”. How the expansion of a project to other countries can work is presented by Knapp et al. in “Scaling-Up: First insights into the accompanying research "Plastic Pirates - Go Europe!”.

Some authors are exploring the effects of citizen science on an institutional level. How has citizen science changed the work of institutions, their perception in the public or how can citizen science be fostered in institutions are some of the questions that form the basis of these contributions.

“Why and how is Zentralbibliothek Zürich involved in citizen science?” by Wiederkehr, “Knowledge should not be lost! Interview with a volunteer” by Graf and Pfister, and “Open Public Humanities – towards linked open local history” by Erlinger examine how citizen science is conducted in public libraries in Switzerland and what effects citizen science had both on an institutional and on a personal level of the people involved in projects. Schäfer et al. analyse how institutions can foster the uptake of citizen science in “Supporting Citizen Science in Research Performing Organisations: which institutional changes can facilitate this process and how can they be monitored?”. In “The booklet "Citizen Science - Research with Schools" – Does it withstand the critical eyes of the citizen science community?”, Frigerio et al. reflect on recommendations for citizen science in and with schools.

A number of contributions is presenting results from citizen science projects from a wide variety of disciplines.

In environmental and natural science Krennert et al. explore why citizen science is important for weather forecasts in “The Significance of Human Weather- and Impact-Reports from a National and International Perspective”. On a very concrete level Zschorn and Mattern show how citizen science can be used to study light pollution in “Counting lights for Sustainability - Insights from the Citizen Science Project Nachlicht-BühNE”. In “Benefits and Challenges of Participatory Design in Agriculture: The Example of the FieldMApp”, Truckenbrodt et al. discuss participatory design and related challenges in agricultural research. Brodschneider und Gratzner show how bee keepers and their honey bees can serve as environmental researchers in “Honey bees and beekeepers as environmental researchers: Results, limits, opportunities”. In “Trails of hidden life - Involving Citizen Scientists to show the biodiversity at Viennese cemeteries”, Filek et al. explore the involvement of citizen scientists in biodiversity research on cemeteries in Vienna.

In recent years citizen science has also taken foot in medical research. Dorn et al. show first insights in their oncological project in “Project PATIO: Towards an improved quality of life

through lived patient and caregiver engagement in oncology”, accompanied by Moldovan et al. with their experiences in “Fostering citizen engagement with the PATIO health guide”. Neff et al. investigate how citizen science can be used for the research of rare diseases in “SelEe- Rare diseases citizen science research!”. Hagendorfer-Jauk and Gruber show how the involvement of local communities shaped their project in “Research on the GOOD LIFE. Citizens ask questions, collect needs, outline solutions.”

The humanities are also more and more using citizen science, and three contributions are showing their experiences in the proceedings. Heinisch et al. present “A different kind of dictionary - Collecting lexemes used in Austria together with citizens”, a project on dialect use in Austria. In ““Hot Irons” - Citizen Science in the field of industrial history”, and Walcher et al. take you “On a digital journey into yesterday's future: Zeit.shift - preserving Tyrol's cultural text heritage”.

3. Conclusion

After a 2-year-break due to the pandemic the Proceedings of the Austrian Citizen Science Conference show the dynamic of the German-speaking citizen science community and how citizen science has developed over the last years. We would like to thank all authors for their valuable contributions and for granting us an insight into their research. We believe that these proceedings are a promise to more excellent citizen science projects and research in years to come.

References

- [1] European Commission, *Special Eurobarometer 516 - Citizens' knowledge, perceptions, values and expectations of science*, DOI: 10.2775/071577, Brussels. Downloaded on 05.04.2022
- [2] *Sparkling Science* (n.d.). OeAD. Retrieved August 22, 2022, from <https://www.sparkling-science.at/>
- [3] *Förderinitiative Top Citizen Science*. (n.d.). FWF. Retrieved August 22, 2022, from <https://www.fwf.ac.at/de/forschungsfoerderung/fwf-programme/foerderinitiative-top-citizen-science>