Etica & Politica / Ethics & Politics, XXV, 2023, 2, pp. 9-34
ISSN: 1825-5167

CITIZEN SCIENCE WITH AND WITHIN THE SOCIAL SCIENCES AND THE HUMANITIES
GUEST EDITORS' PREFACE

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Abstract
The guest editors' preface to the special issue of Etica&Politica/Ethics&Politics "Citizen Science with and within the Social Sciences and the Humanities" discusses the background of citizen science development in Europe with a specific focus on the social sciences and the humanities. It traces the challenges faced in giving visibility to the Social Sciences and Humanities (SSH) in the citizen science field, and highlights the advantages of using an "umbrella term" to unify citizen science and participatory research practices across disciplines.

Keywords
Citizen science, Social Sciences and Humanities, Citizen Social Science, Participatory Research, Public humanities.

The social sciences and humanities (SSH) are perceived as less represented than other disciplines, especially natural sciences, within the citizen science field. This is despite the fact that citizen science is an interdisciplinary endeavour, and that SSH disciplines have a long tradition of collaboration with society to tackle societal challenges and carry on civic engagement[1].

Some hypotheses have been advanced regarding the lack of recognition of the contribution of social sciences and humanities to citizen science. These refer to a

[1] Albert, A., Balázs, B., Butkevičienė, E., Mayer, K., and Perelló, J. (2021). Citizen Social Science: New and Established Approaches to Participation in Social Research. In: The Science of Citizen Science. Springer, Cham. https://doi.org/10.1007/978-3-030-58278-4_7

preponderant epistemological orientation, within citizen science, towards the paradigm of the natural sciences, or to an enduring controversy over the legitimacy of SSH and its academic status. Others attribute the lack of recognition to methodological and ethical concerns when dealing with 'sensitive' SSH topics, or to the depoliticisation and marginalisation of SSH with the "neoliberal" turn in academia[2]. In this respect, citizen science with and within the SSH seems to inherit the same lack of visibility as the social sciences and humanities. There is, however, value in exploring other arguments, starting with the multilingual, socio-culturally grounded practices of the SSH disciplines. First, this means that any search relying only on "citizen science" as a keyword in English is very likely to end with an underrepresentation of SSH projects. This becomes even more evident if the search is limited to the major bibliographic databases like Scopus or Web of Science, within which social sciences and humanities are already underrepresented[3].

Secondly, the issue of language, particularly represented by the term "citizen science" itself, is yet another possible explanation for this underrepresentation. Indeed, different terms are used to refer to longstanding practices of engagement by non-professional "scientists" in research: "participatory research methods", "action-research" and "co-design", just to name a few of the terms describing the collaboration between professional researchers (in academic and other research performing organisations) and non professional researchers/citizens[4]. And again, taking into account that most SSH research is undertaken in languages other than English, these labels could be used within SSH in other languages when talking about participatory research practices. Finally, it may also happen that such practices are documented without a label at all[5].

Even if not bundled under the term "citizen science", participatory practices have a long tradition in SSH disciplines, especially within the fields of public humanities[6],

[2] Tauginienė L., Butkevičienė E., Vohland K., Heinisch B., Daskolia M., Suškevičs M., Portela M., Balázs B.& Prūse B.. (2020). Citizen science in the social sciences and humanities: the power of interdisciplinarity. *Palgrave Communicatoins* 6(1): 89 https://doi.org/10.1057/s41599-020-0471-y

[3] Pranckutė, R., (2021). Web of Science (WoS) and Scopus: The Titans of Bibliographic Information in Today's Academic World. Publications 9 (1), 12. https://doi.org/10.3390/publications9010012

[4] Such as *peer-to-peer science*, *participatory science*, *community science*, *community-based research*, *public participation in research*, *crowdsourced science, etc...* (See Lewandowski, E., Caldwell, W., Elmquist, D. et Oberhauser, K., 2017, Public Perceptions of Citizen Science, in Citizen Science: Theory and Practice, 2 (1), p.3)

[5] To provide only one example, see Lovell, R.E., & Dissell, R. (2021). Dissemination and Impact Amplified: How a Researcher–Reporter Collaboration Helped Improve the Criminal Justice Response to Victims With Untested Sexual Assault Kits. Journal of Contemporary Criminal Justice, 37(2), 257–275. https://doi.org/10.1177/1043986221999880

[6] See for example how collaborative practices with local communities can be tackled within the applied anthropology field (Cf. Lamphere, L., The Convergence of Applied, Practising, and Public Anthropology in the 21st Century, Human Organization; Winter 2004; 63, 4; pg. 431-443), how citizen science might look like within public archeology in the Italian article by Dragoni, P. &

and they can be researcher-led crowdsourcing, or participatory approaches that involve all the stakeholders in all the phases of the research cycle. Therefore, the issue of terminology needs to be considered in order to make it even more explicit why the term "citizen science" - and the terms therein - matter[7], and consequently to clarify their effects on practices and the eventual politics of science.

The aim of this special issue is to give visibility to initiatives of social sciences and humanities that *self-identify* with the label of citizen science and to showcase the potential of citizen science practices with and within the SSH. We hope then that this special issue can improve the dialogue and the understanding related to citizen science across disciplines.

WHY INTRODUCING CITIZEN SCIENCE IN THE SSH IN A DISCIPLINE-BASED ITALIAN JOURNAL

As guest editors, we were pleased by the proposition from the directors of Etica&Politica/Ethics&Politics for a special issue on citizen science with and within the social science and the humanities, not only because Etica&Politica/Ethics&Politics is a diamond open access journal, at no cost to either authors or readers[8]. By discussing/exploring citizen science in a philosophy journal,

Cerquetti, M. (dir.)(2019). L'archeologia pubblica prima e dopo l'archeologia pubblica (in Il capitale culturale - Studies on the Value of Cultural Heritage Supplementi 09 / 2019, eum edizioni università di macerata), or how it might look like within the public history field looking, for example at the five year (2020-2025) project "Public History as the New Citizen Science of the Past (PHACS)", coordinated at the Luxembourg Centre for Contemporary and Digital History (C²DH) at the University of Luxembourg, that develops public history and participatory models for interpreting the past (Cf. "FNR ATTRACT Fellow Thomas Cauvin to join the University of Luxembourg", published on 9.03.2020 on the website of the Luxembourg National Research Fund, https://www.fnr.lu/fnr-attract-fellow-thomas-cauvin-to-join-the-university-of-luxembourg/). Finally, see also how the digital humanities field encounters public history and citizen science, thanks to this reflection of Deborah Paci on "Conoscere è partecipare: digital public history, wiki e citizen humanities" (Cf. Paci, D. (2021). Knowing is participating: digital public history, wiki and citizen humanities. Umanistica Digitale, 5(10), 235–249. https://doi.org/10.6092/issn.2532-8816/12555). The US-based database Humanities for All is an interesting source where public humanities projects can be found, including those applying citizen science and participatory research approaches.

[7] Eitzel, M.V., Cappadonna, J.L., Santos-Lang, C., Duerr, R.E., Virapongse, A., West, S.E., Kyba, C.C.M., Bowser, A., Cooper, C.B., Sforzi, A., Metcalfe, A.N., Harris, E.S., Thiel, M., Haklay, M., Ponciano, L., Roche, J., Ceccaroni, L., Shilling, F.M., Dörler, D., Heigl, F., Kiessling, T., Davis, B.Y. and Jiang, Q., (2017). Citizen Science Terminology Matters: Exploring Key Terms. *Citizen Science: Theory and Practice*, 2(1), p.1. http://doi.org/10.5334/cstp.96

[8] As defined in the Action Plan for Diamond Open Access, the adjective "diamond open access" refers to a model of scholarly publication in which "journals and platforms do not charge fees to either authors or readers. Diamond Open Access journals represent community-driven, academic-led and -owned publishing initiatives. Serving a fine-grained variety of generally small-scale, multilingual, and multicultural scholarly communities, these journals and platforms embody the concept of

we have the opportunity both to highlight how researchers in the humanities and social sciences contribute to citizen science, also called "participatory research", and to introduce the topic to those not already accustomed to its approaches. As readers will acknowledge by browsing the journal archive, this special issue will appear as a rather eccentric one for a traditional discipline-based journal. We believe that, in the way of mainstreaming citizen science as a recognized research practice, it is fundamental that the discussion is brought to disciplinary circles other than the citizen science community itself. In this sense, this special issue comes in addition to recent suggestions in the last years for discipline or study-based journals[9]: the aim is to make citizen science practices increasingly visible in academia, and also to demonstrate how much participatory practices like citizen science imply disciplinary practices being anchored in the research tradition.

A second reason we are pleased to introduce this collection of contributions in Etica&Politica/Ethics&Politics, is because the journal focuses on ethics and politics rather than epistemology. In this respect, citizen science is a particularly interesting field of activity to showcase how epistemology - the way of doing science and thinking about science - is connected to ethics and politics.

Finally, Etica&Politica/Ethics&Politics is an Italian philosophy journal. Citizen science is spread across Europe with numerous networks that have been established for several years in countries like Austria, The Netherlands, Spain and the UK. They are connected all togethers in a pan-European network thanks to the community gathered, at the European level, around the European Citizen Science Association (ECSA) and its digital platform Eu-Citizen.science. In Italy, the national association of citizen science (Citizen Science Italia ETS[10]) was officially born in 2023, after several years of existence as a community of practice.

For all these reasons, this collection of contributions is aptly made available to the readership of Etica&Politica/Ethics&Politics. The eight contributions here collected are authored by professionals from different European countries and are for the most part written by citizen science practitioners and researchers that do not

bibliodiversity." (Cf. Ancion, Z., Borrell-Damián, L., Mounier, P., Rooryck, J., & Saenen, B.. (2022). Action Plan for Diamond Open Access. Zenodo. https://doi.org/10.5281/zenodo.6282403)

[9] See for example "Many Modes of Citizen Science", special issue of the Science & Technology Studies journal (Vol. 32, No. 2, 2019. https://doi.org/10.23987/sts.74404), focused on "the epistemological and ontological diversity of citizen science, and the sometimes contested attempts to define it, as an interesting and fruitful phenomenon to explore from vantage points or perspectives in STS", as Dick Kasperowski and Christopher Kullenberg put it in the editorial of the issue; or the collection of the journal Humanities & Social Sciences Communications, "Citizen social science - active citizenship versus data commodification" (2020). https://www.nature.com/collections/cihfchiheh); or the country-focused "Citizen science programs in Florida", published in 2014 in the journal Florida Scientists by the Florida Academy of Sciences (https://www.jstor.org/stable/i24313958), focusing on environmental conservation programs, as well as the special issue introduction by James D. Austin.

[10] https://www.museonaturalemaremma.it/csi/

come specifically from philosophical disciplines: in keeping with the highly interdisciplinary and inter-professional endeavours of citizen science, this special issue aims to offer space for a large diversity of experiences and standpoints.

FINDING "CITIZEN SCIENCE" WITHIN THE SSH

From the onset, we knew that uncovering "citizen science" contributions within the social sciences and the humanities could prove challenging, not because these contributions would not exist - we both work to demonstrate the contrary - but because we have experienced, in our current and past projects[11], that most researchers in the SSH disciplines do not recognize their practices fit under the umbrella term of "citizen science", although their practices - at least from our viewpoint - can be aligned with at least one of the 34 definitions of citizen science[12] that have been suggested so far.

Given this "underlying doubt" - *do SSH researchers and social actors engaged with researchers in these disciplines recognize themselves under the umbrella term "citizen science"?* - we were concerned by the importance of the outreach for our call for abstracts, and we acted accordingly. So, dear reader, please, allow a short parenthesis with some figures.

The call for abstracts for this special issue was published on April 6th 2022 through the online platform Calenda[13], a platform that according to its annual report recorded 1.3 million visits in 2021, almost half of which came from outside Europe. The call for abstracts was also disseminated through social media, especially Twitter and LinkedIn, and through personal and professional accounts. It also was circulated through the Italian citizen science community, the European level mailing list of the European Citizen Science Association (ECSA), the ECSA newsletter, as well as through discipline-based professional mailing lists addressing philosophical communities, hosted in France (3 mailing lists) and the UK (2 mailing lists), known and subscribed by international researchers, and including the Liverpool List PHILOS-L. Additionally, it has been sent through several French-

[11] One of the guest editors of this special issue, Alessia Smaniotto, coordinated two citizen science projects involving SSH disciplines: the France-based PLACES project (places.hypotheses.org), funded by the French Ministry of Culture and Communication, and the EU-funded project COESO (coeso.hypotheses.org). The other guest-editor, Antonella Passani has more than twenty years of experience in the fields of international and interdisciplinary innovation projects. To name a few recentt citizen science-related projects, she has been the community manager and the person responsible for impact assessment in the ACTION project (actionproject.eu) and she is now involved in the Impetus project (impetus4cs.eu) again as the person responsible for the impact assessment.

[12] Haklay, M., Dörler, D., Heigl, F., Manzoni, M., Hecker, S., Vohland, K. (2021). What Is Citizen Science? The Challenges of Definition. In: The Science of Citizen Science. Springer, Cham. https://doi.org/10.1007/978-3-030-58278-4_2

[13] https://calenda.org/

based mailing lists with a large base of subscribers, including international SSH researchers, addressing respectively the fields of political science, anthropology, epistemology and history of science as well as science and technology studies, and communication studies. Finally, several emails were sent to European colleagues working in the field with the request of circulating further the call for abstracts in other mailing lists and communities.

If we spent all these lines in operational details, it is to show how much we believed that disseminating through these channels should have offered the possibility to reach several thousands of people with this information, knowing that the ECSA newsletter alone reaches more than 2000 subscribers - according to their 2022 annual report - while the PHILOS-L list claims more than 13.000 subscribers in over 60 countries - according to their website.

Still, at the end of this supposedly large dissemination campaign, we ended-up receiving 28 proposals for abstracts. Twelve of them were disqualified mainly because they were out of scope or not in accordance with the call requirements, or because they did not meet the maturity expected. The authors of the 16 remaining abstracts were invited to submit the full paper within six months. Out of the 16 invitations, we received 12 full papers, and the 8 that are now included in this collection are the ones accepted for publication after a single round of double blind peer-review. At this point we would like to warmly thank all the colleagues that have contributed to the quality of this issue; an open peer-review would have certainly resulted in a higher recognition of their precious backstage work. Among the papers finally selected through this process, the majority come from EU-funded, large-scale, collaborative projects.

Why are we providing these raw figures? Because we found the number of proposals received quite low with respect to our expectations, and still with an unfavourable representation of hands-on citizen science endeavours with and within the SSH. We also share these figures because these numbers alone cannot tell us why: we still don't know if the majority of SSH researchers and social actors engaged with researchers in these disciplines do not - or do *not want* to - recognize themselves under the umbrella term "citizen science"; or if "citizen science" is still a keyword to which most of them don't pay attention in the hundreds of emails and social media entries they scroll everyday. Or it may be that the discipline-based venue - an Italian philosophy journal, although indexed in international databases and counting for researchers' evaluation - was perceived by potential contributors as too much of an unusual venue to share citizen science experiences and their ethical and political implications, or even as a low-impact venue in terms of scientific recognition in their respective fields - side-effect of increasingly siloed scientific conversations. There could be additional underpinning hypotheses worth exploring, but the most important point for us now is to draw attention to the open question we think the European citizen science community should be concerned

with at this point: under which conditions could SSH researchers and social actors engaged with researchers in these disciplines recognize themselves under the umbrella term "citizen science"?

This question should guide a larger exploration of the disciplinary and country-based practices involving the SSH that can be identified under the current "citizen science" label, thus contributing to a more precise knowledge of the present and past contribution of the SSH to citizen science.

CITIZEN SCIENCE AT THE EUROPEAN LEVEL

The identification of "citizen science" as an "umbrella term" or "common name" entailing a "wide range of activities and practices"[14], together with a rising interest for renewed collaborations between research and society[15], has determined a steady increase in visibility for citizen science practices in recent years.

This special issue is published in a European context where citizen science is already mainstream at the level of European research institutions, and where there is a solid base of researchers and practitioners engaged in citizen science activities across different European countries.

Concerning the European institutional level, consecutive European research funding programmes over the last twenty years, designated as Science and Society[16] between 2002 and 2006, Science in Society[17] between 2007 and 2013, and finally Science with and for Society (SWAFS)[18] between 2014 and 2020, has contributed

[14] Haklay, M., Motion, A., Balázs, B., Kieslinger, B., Greshake T. Bastian, Nold, C., Dörler, D., Fraisl, D., Riemenschneider, D., Heigl, F., Brounéus, F., Hager, G., Heuer, K., Wagenknecht, K., Vohland, K., Shanley, L., Deveaux, L., Ceccaroni, L., Weißpflug, M., Gold, M., Mazzonetto, M., Mačiulienė, M., Woods, S., Luna, S., Hecker, S., Schaefer, T., Woods, T., Wehn, U. (2020). ECSA's Characteristics of Citizen Science. Zenodo. https://doi.org/10.5281/zenodo.3758668

[15] Mahr, D., Gobel, C., Irwin, A. et Vohland, K., (2018). *Watching or being watched. Enhancing productive discussion between the citizen sciences, the social sciences and the humanities*, in Hecker, S., Haklay, M., Bowser, A., Makuch, Z., Vogel, J. et Bonn, A., Citizen Science: Innovation in Open Science, Society and Policy, UCL Press, London. https://www.jstor.org/stable/j.ctv550cf2.14

[16] Under the FP6 framework: Science and society: specific programme for research, technological development and demonstration : "Structuring the European Research Area" under the Sixth Framework Programme 2002-2006, https://cordis.europa.eu/programme/id/FP6-SOCIETY/fr

[17] Under the FP7 framework: Specific Programme "Capacities": Science in society, https://cordis.europa.eu/programme/id/FP7-SIS/fr

[18] Under the Horizon 2020 framework, https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-2020_en. See also the report of the SWAFS programme published in 2020: European Commission, Directorate-General for Research and Innovation, Iagher, R., Monachello, R., Warin, C., et al., *Science with and for society in Horizon 2020: achievements and recommendations for Horizon Europe*, Delaney, N.(editor), Tornasi, Z.(editor), Publications Office, (2020). https://data.europa.eu/doi/10.2777/32018

in shaping the current approach of the Horizon Europe funding programme, and including citizen science as one of the pillars of Open Science.

The last SWAFS program is of particular interest because it grouped citizen science together with two core components of the previous frameworks in supporting the connections between research and society: the responsible research and innovation approach (i.e. the effort to make research and innovation better aligned with societal needs and challenges and to assure the engagement of different stakeholders in technological and scientific innovation), and science communication.

Looking specifically at the building of a European community of practice around citizen science during the last decade, this was possible thanks to the encounter of both community-lead and institutional-supported movements that happened in particular, but not exclusively, within the framework of the SWAFS programme. The European Citizen Science Association (ECSA)[19] was launched in 2013 and officially founded in 2014. ECSA works jointly with other associations around the world through the Citizen Science Global Partnership (CSGP)[20], and is part of the steering committee of CSGP together with the American Citizen Science Association (CSA), that is just one year younger than ECSA (initiated in 2012, officially founded in 2013), and the Australian Citizen Science Association (ACSA), initiated in 2014 and founded in 2016.

Within this context, while in Europe projects like Doing-it-Together science (DITOs)[21] reinforced the knowledge of citizen science on the ground and among policy makers through a variety of participatory events, citizen science has also been developed as a field of research in itself, especially thanks to a dedicated journal, launched in 2014, called *Citizen Science: Theory and Practice* (CSTP), promoted by the American Citizen Science Association and published by the UK-based publisher Ubiquity Press.

In terms of scientific publications and policy reports, a series of dedicated reports and handbooks gathering contributions and recommendations from the community have been published in Europe during the last decade. The White Paper on Citizen Science for Europe[22], published in 2014 by the "Socientize - Society as e-Infrastructure through technology, innovation and creativity" consortium[23] has been a report providing policy recommendations to shape a citizen science ecosystem in Europe, taking into account the institutional and public policy

[19] https://www.ecsa.ngo/

[20] http://citizenscienceglobal.org/

[21] https://cordis.europa.eu/project/id/709443

[22] Socientize consortium (2014), White Paper on Citizen Science in Europe, https://eu-citizen.science/resource/8

[23] Coordinated by the University of Zaragoza between 2012 and 2014. See: https://cordis.europa.eu/project/id/312902

frameworks of citizen science practice. The report provided also a definition of citizen science bridging it with the public engagement field, and specifying that citizen science includes those public engagement activities were citizens actively contribute to science[24]. In France, a report dedicated to citizen science - here called participatory research (*recherches participatives*) - was published in 2016, after being requested by the French ministry of research and the ministry of education. The report *Les sciences participatives en France*[25] was coordinated by François Houllier, then director of the National Institute of Agricultural Research (INRA) and aimed at presenting the landscape of participatory research and providing recommendations for the future. This report has been followed by another one, published in 2019 and requested this time by the French ministry of culture: *Recherche Culturelle et Sciences Participatives*[26]; it was coordinated by the Museum of Natural History of Paris and was written by a network of some thirty researchers, curators and scientific mediators, and focused on participatory research in the cultural fields. In 2016, the German citizen science community published, in German, the *Green Paper Citizen Science Strategy 2020 for Germany*[27], focusing on the benefits and opportunities of citizen science.

Moving on from policy-oriented reports to "handbooks" collecting research reflections on the theory and practice of citizen science, we should mention "*Citizen Science: Innovation in Open Science, Society and Policy*"[28] and "*The science of citizen science*", published respectively in 2018 and 2020. "*Citizen Science: Innovation in Open Science, Society and Policy*" is one of the main outcomes of the DITOs project; it considers the role of citizen science in the general context of open science and open innovation, and includes a chapter specifically focused on

[24] "*Citizen Science refers to the general public engagement in scientific research activities when citizens actively contribute to science either with their intellectual effort or surrounding knowledge or with their tools and resources.*" (Socientize consortium (2014), White Paper on Citizen Science in Europe, p.8. https://eu-citizen.science/resource/8)

[25] Houllier, F., Merilhou-Goudard, J.-B., (2016). *Les sciences participatives en France: Etats des lieux, bonnes pratiques et recommandations*. https://hal.science/hal-02801940/

[26] Particip'Arc, *Recherche Culturelle et Sciences Participatives*, Report, 2019, *https://www.participarc.net/ressources/azgfg-2019-rapport-particip-arc*

[27] Bonn, A., Richter, A., Vohland, K., Pettibone, L., Brandt, M., Feldmann, R., Goebel, C., Grefe, C., Hecker, S., Hennen, L., Hofer, H., Kiefer, S., Klotz, S., Kluttig, T., Krause, J., Küsel, K., Liedtke, C., Mahla, A., Neumeier, V., Premke-Kraus, M., Rillig, M. C., Röller, O., Schäffler, L., Schmalzbauer, B., Schneidewind, U., Schumann, A., Settele, J., Tochtermann, K., Tockner, K., Vogel, J., Volkmann, W., von Unger, H., Walter, D., Weisskopf, M., Wirth, C., Witt, T., Wolst, D. & D. Ziegler (2016). Green Paper Citizen Science Strategy 2020 for Germany. Helmholtz Centre for Environmental Research (UFZ), German Centre for integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig, Leipzig, Museum für Naturkunde Berlin, Leibniz Institute for Evolution and Biodiversity Science (MfN), Berlin-Brandenburg Institute of Advanced Biodiversity Research (BBIB), Berlin. https://eu-citizen.science/resource/42

[28] Hecker, S., Haklay, M., Bowser, A., Makuch, Z., Vogel, J. and Bonn, A., (2018). Citizen Science: Innovation in Open Science, Society and Policy, UCL Press, London. https://www.jstor.org/stable/j.ctv550cf2

social sciences and the humanities[29]. "*The science of citizen science*", instead, is the main result of a COST action[30] addressing the relationship between citizen science and topics such as policy, education, research quality, and data standards. The COST action supported the networking of the several working groups of ECSA, and the development of the citizen science platform EU-Citizen.Science. *The science of citizen science* includes two chapters focusing on social sciences and humanities within citizen science: a chapter introducing the role of citizen science in the humanities and building on the denomination of "citizen humanities", and another chapter underlying citizen science approaches that are already present in the social sciences, while introducing the term of "citizen social science".

The existence of a real community willing to engage in participatory research and citizen science, has recently been testified by the number of proposals received by European projects running calls for citizen science projects: even considering only the three projects in which we have been, or still are, engaged (Antonella Passani in ACTION and IMPETUS; Alessia Smaniotto in COESO)[31], the request for funding and mentoring support exceeds the offer in a considerable way. These calls enabled teams that were not already engaged with citizen science to train themselves and those already working in the field to professionalise further and give sustainability to their previous work.

Since the last calls of Horizon 2020 and now within Horizon Europe, citizen science is mentioned as a method of citizen engagement and appears as a strong recommendation under different topics. The extremely brief and far from exhaustive reconstruction we offer here, of the progressive entry of citizen science within the European research agenda, shows the achievement of a community that grew in recent years and is able to attract an increasing number of actors. Yet, happy as we are with the steps taken, it is useful to remember that, to take just one example, a similar journey could be drawed for another term that is now mentioned in different calls under almost all European Missions[32]: "Social Innovation". Especially during the Seventh Framework Program, the European Commission invested considerably on this topic, financing dedicated programs such as CAPS (Collective

[29] Mahr, D., *et al.*, *op. cit.,* 2018.

[30] COST Action CA15212 - Citizen Science to Promote Creativity, Scientific Literacy, and Innovation throughout Europe.

[31] For the COESO project which focuses on SSH citizen science, 172 proposals have been received, for 5 grants availables. For ACTION, 196 proposals have been received for 10 grants available where the focus of the open call was on the topic of pollution. IMPETUS ran its first open call recently and received 225 proposals and 34 secured the grants.

[32] https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe_en

Awareness Platforms for Sustainability and Social innovation)[33], creating working groups and studies on this and establishing the European Social Innovation Prize (which is still ongoing). These actions stimulated the grouping of a community of practitioners, quite an interdisciplinary one indeed, with a relevant presence of SSH researchers. When the programs explicitly and directly mentioning Social Innovation ended, the community rearranged and - at least to some extent - moved under other "labels".

This additional detour in the history of European research programmes - which, we know, would need a more detailed discussion - aims to highlight the risk often associated with the mainstreaming of a term or a research practice: that of scattering the community and eroding the spaces for sharing and reciprocal learning. In this sense the role of the national and European associations, of dedicated journals and conferences, of training programs within tertiary education is crucial.

Following this glimpse on the European context, we turn our attention now to what is entailed in this collection for Etica&Politica/Ethics&Politics. As mentioned, our goal was to introduce the history, current landscape and potentialities of citizen science practices involving the Social Sciences and the Humanities, focusing more on the cases where SSH *perform* citizen science than to the ones in which SSH reflect or study citizen science. This choice of giving priority to hands-on citizen science endeavours might have played a role in reducing the number of abstracts received, in addition to the other factors previously discussed. Moreover, we were particularly interested in the ethical and political aspects of doing citizen science. The eight contributions in this collection mainly provide examples pertaining to citizen science within the SSH realm, and also showcase some of the fundamental questions that the citizen science field raises in terms of ethics and politics, including few examples from non-SSH related projects.

AN INTRODUCTION TO CITIZEN SCIENCE WITH THE SSH

Although constituting a limited number of examples of citizen science with and within the SSH, the papers collected in this special issue introduce some of the main fundamental issues - the basics - on which any citizen science project should build on: (1) the diversity characterising citizen science projects and endeavours; (2) the fact that citizen science is a research oriented activity - not necessarily lead by professional researchers, but definitely oriented to the production of new knowledge; and (3) that citizen science is based on ethical principles that represent the core values of its practice. Finally, even if less explicitly explored in this collection, a citizen science project needs to pay attention to what is political in social

[33] Anania, L. and Passani, A., (2014). A Hitchiker 's guide to digital social innovation, 20th ITS Biennial Conference, Rio de Janeiro 2014: The Net and the Internet - Emerging Markets and Policies 106838, International Telecommunications Society (ITS).

activity; particularly with respect to the governance of the projects as well of the infrastructures and services supporting citizen science, and with respect to the collective benefit of the activity, both internal to the project participants and external towards the society, regardless of the size of the social groups that can benefit from a specific citizen science project.

Diversity

Citizen science can be described as a multi-/ inter-/ cross-disciplinary and interprofessional activity. The papers collected for Etica&Politica/Ethics&Politics are authored by researchers, research managers, entrepreneurs, research assistants, associate professors and professors, freelancers, post-doctoral researchers and PhD candidates. They work for public universities and research institutions, private social enterprises, non-profit organisations, or as self-employed professionals. They are trained in, or working within, the disciplinary fields of linguistics, psychology, history, sociology, epidemiology, bioethics, statistics, computer science, ethnology, ecology, economy, human geography, agroecology, political science, and health studies. And this is just a sample from eight papers: the diversity of the contributors to the field of citizen science is much larger, as well as the epistemic diversity we find within.

In the same way, the participants involved in citizen science activities and projects that the readers will see mentioned in this collection, are equally diverse: patients, youths, children and elders, civil servants, town dwellers, laypersons, prisoners, schoolteachers, parish priests, pharmacists, doctors and lawyers. How much socially diverse are the participants - in the specific social dimensions that are relevant for a project's aim and scale - is a concern for most citizen science projects, and social inclusiveness is one of the challenges that citizen science faces[34]. Finally, the citizen science field is multilingual, as we wished to showcase by accepting papers in different languages.

Research approaches

Citizen science is characterised by a diversity of approaches. In the last two decades, this diversity has been described and classified. We could refer to the well-known classification by Bonney *et al.*[35] (2009) that considers contributory,

[34] Pateman, R. M., Dyke, A. and West, S. E. (2021). The Diversity of Participants in Environmental Citizen Science. Citizen Science: Theory and Practice. ISSN 2057-4991

[35] Bonney, T., Cooper, C. B., Dickinson, J., Kelling, S., Phillips, T., Rosenberg, K. V., Shirk, J., (2009), Citizen science: a developing tool for expanding science knowledge and scientific literacy. BioScience 59: 977–984. ISSN 0006-3568, electronic ISSN 1525-3244. by American Institute of Biological Sciences

collaborative and co-created projects, or to the one proposed by Haklay[36] (2013) that considers extreme, participatory, distributed intelligence and crowdsourcing projects. Both classifications by Bonney and Haklay have in common that they focus on the *type* of collaboration. Other classifications also exists[37], such as the one by Andrea Wiggins and Kevin Crowston[38] (2011), which focuses more on the *objective* of a citizen science project ("action", "heritage conservation", "investigation"), as well on its level of "virtuality", and if yes or not the project includes an "educational" dimension.

For the scope of this introduction, we suggest to focus only on two macro categories: one for those projects driven by participatory practices and one for those based on crowdsourced/contributory ones. How can one recognize these categories? In *contributory projects*, also called *crowdsourced*, one identified leader defines a problem and the methodology, and asks for contributions to collect usually a large amount of data that requires a lot of resources to be completed. Thus, the participation consists of the provision of resources; the cognitive engagement can be minimal or more elaborated, depending on the project. In *participatory practices*, instead, the diverse parties involved participate in the different phases of the research, from the problem definition to the data collection and analysis; sometimes they also work together on a common final output. Participatory research, when pushed to its extreme potential, can be described as a "fully integrated"[39] activity where participants can be involved in all the phases of the research from its design to its dissemination.

We are well aware that citizen science practices can engage citizens in different ways and that a separation between two categories may appear belittling. However, if these categories are viewed as the two poles of a continuum, then we can identify and understand the level of engagement within a project by moving the cursor between these two poles.

[36] Haklay, M. (2013). Citizen Science and Volunteered Geographic Information: Overview and Typology of Participation. In: Sui, D., Elwood, S., Goodchild, M. (eds) Crowdsourcing Geographic Knowledge. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-4587-2_7

[37] See Shirk, L. J., Ballard, H. L., Wilderman, C. C., Phillips, T., Wiggins, A., Jordan, R., McCallie, E., Minarchek, M., Lewenstein, B. V., Krasny, M. E., Bonney, R., (2012). Public participation for scientific research: a framework for deliberate design. Ecology and Society 17(2):29. http://dx.doi.org/10.5751/ES-04705-170229; and Schaefer, T., Kieslinger, B., Fabian, C. M., (2020). Citizen-Based Air Quality Monitoring: The Impact on Individual Citizen Scientists and How to Leverage the Benefits to Affect Whole Regions. Citizen Science: Theory and Practice, 5(1): 6, pp. 1–12.https://doi.org/10.5334/cstp.245

[38] Wiggins, A., Crowston, K., (2011). From conservation to Crowdsourcing: A Typology of Citizen Science. In: Proceeding of 44th Hawaii International Conference on System Science (HICSS), pp.1-10. https://doi.org/10.1109/HICSS.2011.207

[39] Haklay, M. *op. cit.,* 2013.

The levels or types of participants' engagement (from contribution to participation) can be differently mobilised with respect to the context and needs of the research itself. There seems to be no specificity of the SSH with respect to STEM on this matter: activities in the entire spectrum of the continuum can be found in the SSH fields. Citizen science - this is the second fundamental we mentioned - is indeed a research practice: it is a research-oriented activity aiming at the production of new knowledge. Each specific project will choose the most appropriate level of participants' engagement according to the research objectives and needs, as well as the methodologies and expectation of the involved disciplinary and professional fields.

For instance, in this collection of contributions, the dialect glossary of French-speaking Switzerland described by Nissille and Kloetzer in their paper "*Le Glossaire: 125 ans de sciences citoyennes en dialectologie*", constitutes a concrete example of a contributory citizen science project in the field of linguistics: initiated in 1897 and launched two years later, it mobilised around 200 contributors in 10 years that participated in the endeavour thanks to a specific protocol for collecting contributions by correspondence. The description of the Warlux project instead by Janz in "*The participatory aspect of creating a collection on WWII*" introduces in the discussion a citizen science contributory approach from the field of history, presenting how they obtained material that did not make its way into archival collections.

Examples of participatory approaches in this special issue are in two papers. The first one, by Canto-Farachala *et al.* ("*Participatory Communication and Citizen Social Science*"), presents how young citizen scientists have been involved in an European project called YouCount, where they contributed in both the design and use of qualitative and quantitative methods, as well as in the development, use and evaluation of a dedicated application for smartphones and computers (the YouCount App). Additionally, the paper provides a theoretical contribution by introducing the Participatory Action Research (PAR) as one of the epistemic foundations of citizen social science, while introducing the concept and foundations of Participatory communication. The second paper, by Malavasi *et al.* ("*Epidemiologia ambientale ben temperata: etica, sociologia e storia in un progetto di citizen science*"), presents a co-created citizen science project in the field of public health, designed to tackle a local health issue in the context of potential industrial pollution. Here, researchers from the SSH collaborate with others from the health sector and with citizens in all the phases of the research work: from the definition of the research objective to the collection, analysis and dissemination of the research results, and the suggestion of policy recommendations.

As we mentioned at the beginning of this preface, different terms are used to refer to longstanding practices of engagement by non-professional "scientists" in

research. Some of these practices, like participatory methodologies or action-research, are particularly present in the SSH disciplines. We also mentioned a specific field where citizen science practices within the SSH could be found but are not labelled as such: the public humanities. Both Janz and Malavasi *et al.* articles open a dialogue with the field of public history.

Even though not all the actions in the fields of public humanities and public social sciences include citizen science practices - i.e. the *active* participation of non-professional researchers in a common research activity - it is nonetheless possible to find in these fields research practices that can be related to citizen science. However, under what conditions? The article by Lucia Ziglioli ("*Filosofia pubblica e citizen science: verso una citizen philosophy?*") suggests an answer to this question for the field of public philosophy. Through examples in which philosophy is mobilised as a discipline within participatory approaches, she provides arguments for labelling specific public philosophy activities as citizen science, provided that the participants are effectively engaged in producing new knowledge together with the professional researchers. In the case of philosophy, this means that not only this knowledge is collected and recognized in its existence by the scientific community, but also that this knowledge is incorporated in return in the philosophical discussion, and gives the possibility to shift questions and concepts.

Ethics and politics

The questions raised in the background of some of the papers tackle the ethical aspects of doing citizen science. These are related to different strands of citizen science: from the management of personal data, to the difficulty in matching the ethical requirements of standard research processes (and ethical committee) when doing citizen science and touching the very nature of the relationship and the power asymmetries between professional and citizen scientists. On the latter topic, Remmers *et al.* in their paper "*Mind the relationship: a multi-layered ethical framework for citizen science in health*" identify respect and justice as the core values in engaging citizens in science (they developed the framework within the Health sector, but we would add that this could apply also outside of it). Besides these, five ethical *desiderata* and two fundamental qualities[40] are considered as crucial in making citizen science "a humanising endeavour unlocking the investigative capacities of humans".

The centrality of "transparency" is called upon as a central value for citizen science also by Thuermer *et al.*, in their paper "*Talking metadata: understanding privacy implications of volunteer contributions in citizen science projects*". In their

[40] The five ethical *desiderata* identified by Remmers *et al.* are "relationship between equals", "recognition of each other's capacities, knowledge, and agency", "reciprocity", "openness for different goals", and "openness for different research methods and paradigms". The two fundamental qualities are symmetry and transparency.

analysis on how data and metadata are created, managed and understood by citizen science projects coordinators and by the citizens involved, they point out that in many cases, citizen scientists collect data and consequently contribute metadata without knowing, thus without being able to question the possible risks and consequences (for example in terms of privacy) for them and other concerned people. This is associated with other ethically-relevant topics such as data ownership and recognition of contributions: all aspects that should be discussed in an open and transparent way with volunteers at the beginning of a project as they might influence important technical and activity-related choices.

Considering the papers in this special issue, the question of the possible connections between citizen science and politics is not directly tackled. The contribution of citizen science projects to policy making is an important topic for the community[41] and, while there are several good practices in this sense[42], ways of supporting a more structured collaboration between citizen science practitioners and decision makers are still under discussion in many EU countries.

This topic is often tackled by looking at how citizen science projects can deliver data for evidence-based policy making; however, the paper by Bedessem *et al.* ("*Citizen science for public deliberation of local environment policies*") suggests a step forward with a possible path to combine this need with public deliberation. The authors report on two pilots in which a digitally-mediated framework is used to involve more directly the public in policy-making by combining data crowdsourcing with, indeed, local public deliberation practices. The authors describe a project in the field of environmental psychology and, bridging the literature on digital political deliberation and citizen science, present a case study that sees citizen science as a support "tool" meant to foster good quality deliberation. In this case the role of citizen science is that of "training" citizens on a topic to be discussed in public deliberation. In other words, by gathering data on a given topic, citizens self-educate themselves on that topic and learn about the political relevance of it. Finally, this process can give them trust in their own capability to take a position in the democratic debate.

[41] See: Haklay, M., (2015). Citizen Science and Policy: A European Perspective. Washington, DC: Woodrow Wilson International Center for Scholars. https://www.wilsoncenter.org/sites/default/files/media/documents/publication/Citizen_Science_Policy_European_Perspective_Haklay.pdf; Nascimento, S., Rubio Iglesias, J. M., Owen, R., Schade, S., & Shanley, L. (2018). Citizen science for policy formulation and implementation. UCL Press; and Luneau, A., Demeulenaere, E., Duvail, S., Chlous, F., Julliard, R.. Le tournant démocratique de la citizen science: sociologie des transformations d'un programme de sciences participatives. *Participations - Revue de sciences sociales sur la démocratie et la citoyenneté*, 2021, 2021/3 (31), pp.199-240. https://doi.org/10.3917/parti.031.0199

[42] Göbel, C., Nold, C., Berditchevskaia, A., Haklay, M. (2019). How does citizen science "do" governance? Reflection from DITO's project. Theory and Practice, 4(1): 31, pp. 1–13. DOI: https://doi.org/10.5334/cstp.204

Supporting citizen science

Finally, there is a crucial point in the growth of citizen science, namely the possibility to create and sustain in the long run support services and digital platforms that facilitate and foster citizen science both in physical and digital spaces, and allow data exchange and their conservation following open science approaches. This question is not specific to the SSH, but the lack of recognition of these disciplines, may add to an already challenging question.

Without of course diminishing or neglecting the role that digital platforms and services play today in facilitating and supporting citizen science practices[43], we made the choice for this preface to stress only one point, strongly highlighted in the papers collected here: the relevance of the human resources needed to support citizen science projects.

The example of the glossary of French-speaking Switzerland showed not only that the project coordination could rely on existing infrastructures such as the postal service to run their project, but also that the long term availability of the editorial team was paramount to ensure a continuous follow-up with the core participants, and keep their engagement in the long run. The example of the Warlux project shows how important it has been for the participants to have the possibility to reach out and ask questions to the research team, while the example of *Aria di ricerca* in Malavasi *et al.* (*Epidemiologia ambientale*) stresses the crucial role that local associations and their members had in the success of the research project. Finally, the example provided by Bedessem *et al.* of the SPOT project, built in coordination with two French municipalities, tells us how much a platform alone is not enough to onboard and keep engaged participants in a citizen science project: the mediation

[43] The readers willing to explore this topic may start with the following references: a guide collecting contributory platform in the cultural fields that has been published in 2022 in French, edited by Marta Severo, Sébastien Shulz and Olivier Thuillas, including a postface by Francesca Musiani (Cf. Severo M., Shulz S., Thuillas O. (2022). Culture en partage. Fyp, 2022); an article by Baudry *et al.* investigates how collectives are formed and governed within selected online crowdsourced citizen science platforms, and suggests two ideal-types of government (Cf. Baudry, J., Tancoigne, É., & Strasser, B. J. (2022). Turning crowds into communities: The collectives of online citizen science. *Social Studies of Science*, *52*(3), 399–424. https://doi.org/10.1177/03063127211058791); an example of a platform specifically designed to support participatory science process (see Moustard, F., Haklay, M., Lewis, J., Albert, A., Moreu, M., Chiaravalloti, R., Hoyte, S., Skarlatidou, A., Vittoria, A., Comandulli, C., Nyadzi, E., Vitos, M., Altenbuchner, J., Laws, M., Fryer-Moreira, R., and Artus, D. (2021). Using Sapelli in the Field: Methods and Data for an Inclusive Citizen Science. *Front. Ecol. Evol.* 9:638870. https://doi.org/10.3389/fevo.2021.638870); and finally, for an example of the usage of a non-citizen science specific digital platform, in support of participatory research within the SSH, see Chibois, J. and Smaniotto, A. Open digital infrastructures for bridging professional cultures: the case of extreme citizen science between journalism and research. Open Research Europe 2023, 3:3. https://doi.org/10.12688/openreseurope.15262.1

put in place by the municipalities - only focused on advertising and promotion - was not enough to ensure participation.

This necessary support cannot be provided only by the research teams that run the projects; dedicated services can be provided within research institutions or in collaboration with them, while playing an important role in facilitating collaborations and raising awareness about their challenges and needs. The sciences shops are an example of these support services: most of them are action-research or local innovation oriented, and in almost 50 years of existence in Europe - through several trials and errors - they developed a consolidated expertise in facilitating collaborations between researchers and civil society organisations and individuals.[44]

More recently, since citizen science is considered at the European policy level an open science pillar, research libraries, incited by their European association Liber, are particularly mobilised in shaping new support approaches to accompany researchers in this paths[45]. In this respect, it is not surprising that a comprehensive overview, available in Italian, on the current landscape of citizen science was written by a research support librarian and researcher in library and information science: in her article published on the Italian journal of Library Science, Archival Science and Information Science (JLIS.it), Rossana Morriello includes considerations about the support services such as infrastructures, platforms, libraries, although she mainly focuses on crowdsourced citizen science.[46]

However old or new these support services providing human resources to facilitate participatory processes are, there is still a long way to reach full recognition and support, in order to be able to assist in return the research teams and their partners and project's participants. As Canto-Farachala *et al.* remind us in their paper "*Participatory Communication and Citizen Social Science*", building trusted relationships enabling co-creative practices takes time and resources; however, the conditions that are necessary for citizen social science to develop - and we may add, necessary in general for developing any participatory research practice - are still not fully incorporated in institutional structures and in research funding organisations.

[44] Cf. Savoia, A., Lefebvre, B., Millot, G. & Bocquet, B. (2017). The Science Shop Concept and its Implementation in a French University. *Journal of Innovation Economics & Management*, 22, 97-117. https://doi.org/10.3917/jie.pr1.0006

[45] The working group dedicated to citizen science of the LIBER association of European research libraries started a collaborative work to provide the librarian community with a guide on "Citizen Science for Research Libraries", and the first two parts, respectively about needed skills and infrastructures, are available on Github (Cf. Citizen Science Skilling for Library Staff, Researchers, and the Public, doi: https://doi.org/10.25815/hf0m-2a57, and "Library Infrastructures and Citizen Science", doi: DOI: https://doi.org/10.25815/tz0x-m353

[46] Morriello, R. (2021). "Citizen science. One of the eight pillars of open science identified by the European Union." JLIS.it 12, 3 (September 2021): 33–52. DOI: https://doi.org/10.4403/jlis.it-12761

IN THE END, SHOULD WE KEEP CALLING IT "CITIZEN SCIENCE"?

At the end of this journey to introduce citizen science with and within the social sciences and humanities, why do we still need to ask this question? The reason is that despite - or more likely because of[47] - the steady increase in visibility for citizen science practices in recent years, and the rise of citizen science as a specific disciplinary field within the academia, the discussion around the perimeter of the practice - its "definition" - has lead to a large panel of descriptive, programmatic or policy oriented definitions: a collective of six researchers engaged in shaping the citizen science field in Europe, gathered and categorised 34 of these definitions[48].

As we mentioned at the very beginning of this preface, and as it appeared as a point of attention throughout our text, it has not to be taken for granted that all the researchers and practitioners implementing contributory or participatory approaches within the SSH, recognize themselves as practitioners of citizen science. Neither can "citizen science" as an umbrella term, or "big-tent" term, be taken for granted.

The American Citizen Science Association seems to be reaching an end with its long term reflection about, precisely, its name. After a long process, the association is moving towards a new name; the new candidate name is "Association for Advancing Participatory Sciences", even though, after the announcement at the end of the association's annual conference in May 2023, the process of name changing still has to be officially validated. Citizen science will then possibly be categorised as one of the ways of doing "participatory sciences".

The discussion around the term "citizen science" in America has a lot to do with a political stance, aroused from reflections on epistemic justice, that started several years ago: the first steps of that discussion have been summarised by a collective of more than twenty citizen science researchers and practitioners, mainly belonging to environmental studies and the natural sciences field, in the article "Why terminology matters"[49]. If one quote has to be taken from it, it is the following:

[47] These kinds of discussions are relevant when an emerging field finds its way among the institutions, and are more a testimony for its lively existence, rather than a sign of weakness. Among similar examples we could find in recent years, the emergence of the digital humanities fields garners several similarities, among which is its recognition as a "not a unified field but an array of convergent practices that explore a universe" (Cf. Schnapp, J., Presner, T. *et al.* (2009). The Digital Humanities Manifesto 2.0. UCLA Mellon Seminar in Digital Humanities), and being a "methodological commitment" (Cf. Matthew K. Gold, collected in the section "Day of DH: Defining the Digital Humanities", in Debates in the Digital Humanities, University of Minnesota, https://doi.org/10.5749/9781452963754) contributing to renew current approaches in performing and teaching research.

[48] Haklay, M., *et al.*, *op. cit.*, 2021.

[49] Eitzel, M.V., Cappadonna, J.L., Santos-Lang, C., Duerr, R.E., Virapongse, A., West, S.E., Kyba, C.C.M., Bowser, A., Cooper, C.B., Sforzi, A., Metcalfe, A.N., Harris, E.S., Thiel, M., Haklay, M., Ponciano, L., Roche, J., Ceccaroni, L., Shilling, F.M., Dörler, D., Heigl, F., Kiessling, T., Davis, B.Y.

"Because citizen science is a form of knowledge production, citizen science terminology has the power to allow some peoples' knowledge to be included and the knowledge of others to be excluded. This power potentially presents epistemic (knowledge) justice issues and has consequences for the quality of our understanding of the world."[50]

With no naive stance in understanding that people draw boundaries using language, the defence of "citizen science" as an umbrella term allowing the gaining of support and building a community, has been expressed right after the end of the last American Citizen Science Association conference, in a passionate blog post by Muky Haklay[51], one of the leading actors of the citizen science movement on both sides of the Atlantic. Haklay, before diving into a reflection building 16 arguments, underlines that he endorsed, from his start of engagement with participatory mapping and citizen science, "a pluralist position that accepts as many activities as possible under the umbrella, as this helps secure funding, recognition, and resources for all these activities".

We can agree with Haklay that a pure terminology quarrel, devoid of practical reason, is pointless. A theoretical argument for its own sake would not bear fruit: it needs to implant itself in practices, and grow with them and in their ethical and political dimensions, to nurture conceptual bunches that will keep it all together. We would also like to point out that where Haklay and Jennifer Shrink - the current executive director of the American Citizen Science Association, seem to agree, it is that, whatever the umbrella term, this name should not affect the way researchers and practitioners describe their own work on the field, since these descriptions is very likely to vary by context, as suggested by the 34 definitions and the diversity of labels that can be mobilised in the field.

If it is not really the name that matters, but the work behind that name, yet, the worry about the possibility that a name change could eventually undermine the "momentum" for citizen science, is telling us something that it is worth making explicit: it highlights how much "politics of science" there is behind and surrounding the building of a community of practice around citizen science, whose members seek support, recognition and funding at the policy levels, both locally, nationally, and internationally.

and Jiang, Q., (2017). Citizen Science Terminology Matters: Exploring Key Terms. *Citizen Science: Theory and Practice*, 2(1), p.1. http://doi.org/10.5334/cstp.96

[50] *Ibid.* In this quote, Eitzel *et al.* refer to Fricker, M. (2007). *Epistemic injustice: Power and the ethics of knowing*. Oxford University Press, https://doi.org/10.1093/acprof:oso/9780198237907.001.0001; and Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective *Feminist studies* 14(3): 575–599, DOI: https://doi.org/10.2307/3178066

[51] In his personal blogging space povesham.wordpress.com. See Muki Haklay, C*Sci 2023 and the new name of the (US) Citizen Science Association, 10 June 2023, https://povesham.wordpress.com/2023/06/10/csci-2023-and-the-new-name-of-the-us-citizen-science-association/

While avoiding of a terminology quarrel, but still without dismissing what is good in reflecting upon terminology, if we can propose a suggestion in line with the wish to keeping building a solid research community around citizen science, this would be to focus on the power of translations: translating disciplinary languages, as we do with natural languages of which they are part, bridging what there is in common, and learning from what is untranslatable. Focusing then, specifically, on the descriptions of work within the diverse disciplinary fields - the actual collaboration practices, and then identifying how the same contributory and participatory approaches are - and were - called within these disciplinary-based or practice-based communities, linking them with the common "umbrella term".

On the contrary, what the persistence of an excessive airtight siloing between disciplinary labelings might show, is that the potential of translation in uniting forces behind a common interest - that is, rethinking and reshaping the role of research practices with and for our society, their spaces, and their actors - is still locked.

For those willing to contribute unlocking this potential, and join this effort of translation, there are several resources on which to rely that the European community produced in recent years, in addition to the ones already mentioned above, that ambitioned to set the common ground for a European citizen science community of practice: the principles and the characteristics of citizen science[52], and the criteria helping citizen science networks and platform coordinators to decide if a project should be listed as citizen science in their databases, thus facilitating the exchange of projects between networks, as well as making projects more comparable.[53]

This collection of articles for Etica&Politica/Ethics&Politcs is a contribution to this translation effort we are calling for. A first attempt at collecting examples of hands-on practices, documenting the presence of citizen science practices within the SSH, regardless of whether these practices were or are actually called "citizen science". We began this endeavour because, when thinking about politics of science, it seemed to us fundamental that in the progressive institutionalisation of citizen science the humanities and social sciences are not lost in translation: we believe that the whole citizen field, and not only the SSH, will benefit from the recognition of the specific contributions of these disciplines to the citizen science

[52] Both the ECSA principles (currently translated in more than 30 languages) and the characteristics of citizen science are available on the open repository Zenodo. Cf. ECSA (European Citizen Science Association). (2015). Ten Principles of Citizen Science. https://doi.org/10.17605/OSF.IO/XPR2N; Haklay, Muki, et al.. (2020). ECSA's Characteristics of Citizen Science. Zenodo. https://doi.org/10.5281/zenodo.3758668; and Haklay, Muki, et al.. (2020). ECSA's Characteristics of Citizen Science: Explanation Notes. Zenodo. https://doi.org/10.5281/zenodo.3758555

[53] Dörler, D. *et al.*, Criteria for listing citizen science projects on citizen science online platforms. European Citizen Science Association (ECSA) Working Group Citizen Science Networks. 2022. Zenodo. https://doi.org/10.5281/zenodo.7249085

field, equally ensuring a larger epistemic diversity and working towards a real interdisciplinary practice.

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Bonney, T., Cooper, C.B., Dickinson, J., Kelling, S., Phillips, T., Rosenberg, K.V., Shirk, J., (2009). *Citizen science: a developing tool for expanding science knowledge and scientific literacy*. BioScience 59: 977–984. ISSN 0006-3568, electronic ISSN 1525-3244. by American Institute of Biological Sciences

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