
Background reading

with toolkit for
developing social
inclusion
participation in
citizen Science



Toolkit for developing social inclusion participation in Citizen Science

Are you embarking on your own SOCIO-BEE Citizen Science project?
This document will give you all background information regarding inclusion



Background

This document serves as a comprehensive guide and explanation of the SOCIO-BEE Inclusion Toolkit, elucidating its purpose, development, and significance in the context of citizen science projects. The toolkit is designed to ensure that the processes and outcomes of such projects are socially inclusive, particularly from an intersectional perspective.

Context of Inclusion and Gender Equality

Inclusion and gender equality within citizen science projects address pedagogical opportunities and the representativeness of collected data. The incorporation of an inclusive and gender perspective is driven by the principles of social justice and the democratization of science. The aim is to benefit all citizens, including vulnerable individuals and groups, ensuring equitable environmental benefits, especially crucial in sustainability-focused projects.

Dynamics of the SOCIO-BEE Project

The SOCIO-BEE project embraces various typologies of citizen scientists, providing scalability for inclusivity by allowing multiple entry points and engagement levels. The project's challenge is to prevent the marginalization of vulnerable individuals by offering diverse and meaningful roles.

Factors Requiring Special Consideration

Several factors demand special attention regarding inclusivity in the SOCIO-BEE citizen science project, encompassing diverse participation, representation, data traceability, accessibility of tools, and the creation of safe environments. These considerations must permeate all project phases, ensuring inclusivity from project definition to analysis and reporting.

Overcoming Obstacles and Adopted Strategies

The initial challenge lies in the unfamiliarity and resistance to inclusivity in citizen science processes, especially in technology fields. To overcome this, SOCIO-BEE employs two strategies:

- a) Early incorporation of inclusion activities through collaboration from the project's outset.
- b) Development and implementation of the SOCIO-BEE Inclusion Toolkit as a tool for reflection and decision-making on inclusivity at each project stage.



Why is Social Inclusion & gender equality needed in Citizen Science?

The Toolkit

The toolkit consists of a checklist and a collection of tools that are intended to accompany the process of reflection that the checklist is intended to encourage. The idea is that citizen science groups can reflect on the different aspects included in this document in a joint or sectoral way and that they have references that help them to understand the context, and to access theoretical and practical materials that accompany them in their reflection.

Citizen Science processes involve a democratisation of science through the inclusion of participants from different groups, statuses, ages and genders (Dickel & Franzen, 2015). As stated by Paleco et al. (Paleco et al. 2021), for citizen science to be inclusive, it must involve people from these diverse groups. However, this inclusion is not always easy. Thus, Pandya et al (2012) point out that these citizen science processes often do not reflect and include all demographic profiles.

In order to reverse this disparity in the representativeness and involvement of different groups, it is necessary to understand the cultural, social, economic and natural barriers that currently hinder participation and to commit to inclusive approaches designs (Spiers et al., 2019; Paleco, 2021). This can be done by enlarging the number of beneficiaries of citizen science and diversifying the perspectives of participants (Cooper et al, 2021; Campos et.al, 2021; Van Bouwel, 2023) and their sectors of origin (governmental, CSO, academia, companies, unaffiliated with institutions...). A clear commitment to the community an intersectional approach can also be fostered by the adherence to the European strategy for gender equality (2025) by implementing specific actions to ensure the inclusiveness of women and members of the LGTBIQ+ collective, and promoting the mainstreaming of the gender perspective in the different moments of citizen science.

To ensure this inclusive approach, we need not only to diversify the participation of citizen science actors by ensuring the representativeness, but we must also ensure that the data collected and the tools used are accessible to all subjects and encourage and facilitate their participation.

Finally, non-discrimination, inclusion and diversity cannot be addressed without determining the extent to which a project and a community will ensure that all participating actors do so in a safe, free and consensual manner and are aware of what their participation entails.



All these elements are contained in the tool, grouped into four blocks.

Representativeness in the participants- Who are we including/excluding?

Inclusive representativeness is crucial for citizen science projects because it ensures that a diverse range of perspectives, backgrounds, and experiences is included and valued in scientific research. Citizen science projects involve the participation of members of the public in scientific data collection, analysis, and interpretation. By engaging a wide variety of individuals, these projects can tap into the collective intelligence and expertise of the broader community, leading to more robust and inclusive scientific outcomes. Inclusive participation allows citizen science projects to draw on a diverse range of perspectives and knowledge. Different individuals bring unique experiences and insights, which can contribute to a more comprehensive understanding of the research question at hand. Including people from various backgrounds, cultures, age groups, and geographic locations can lead to innovative solutions and novel discoveries that may otherwise be overlooked. It helps to ensure that the findings and conclusions derived from citizen science projects are valid and reliable. By involving a broader range of participants, citizen science projects can mitigate biases and limitations that may arise from a narrow or homogenous sample. It allows for data collection across different contexts, enhancing the generalizability and robustness of the results.

Citizen science projects often aim to foster community engagement and empowerment.

Inclusive representation helps build trust between the scientific community and the public, leading to more effective collaborations and sustained involvement in citizen science initiatives.

By actively involving a diverse set of individuals, including those traditionally underrepresented in science, these projects can promote inclusivity, social cohesion, and a sense of ownership among participants. Moreover, is essential for addressing issues of equity and social justice. Historically, certain communities have been marginalized or excluded from scientific research processes.

Data collection analysis-How are we analysing/collecting data?

Inclusive data gathering and analysis promote a more comprehensive and accurate understanding of scientific phenomena while ensuring equal participation and representation. They help prevent gender bias in scientific research. By involving individuals of all genders, citizen science projects can ensure that diverse perspectives and experiences are considered in data collection and interpretation. This helps overcome potential biases that may arise from a single-gender sample or the omission of gender-related factors in the research process. Gender equality in data gathering and analysis allows citizen science projects to capture a broader range of experiences related to the research topic. Gender can influence people's interactions with and perceptions of the natural environment, which may impact their observations and insights. Including participants of different genders helps uncover unique perspectives, enriches datasets, and leads to more nuanced findings.



Accessibility of the tools- Are the methodology/tools that I am using inclusive?

Ensuring accessibility of tools and methodologies enables broader participation, promotes inclusivity, and enhances the quality and reliability of the scientific outcomes. Accessibility ensures that individuals from diverse backgrounds, including those with disabilities or limited resources, can actively engage in citizen science projects. By removing barriers to participation, such as physical, cognitive, or socioeconomic limitations, more people can contribute their skills, knowledge, and observations to the project. This leads to a more representative and inclusive dataset, which strengthens the scientific validity and reliability of the findings.

Accessible tools and methodologies foster equity and inclusion by ensuring that everyone has an equal opportunity to participate in citizen science projects. It prevents the exclusion of individuals who may face challenges related to mobility, communication, or technological access. By intentionally designing tools and methodologies that are accessible to diverse populations, citizen science projects can promote equal participation and address disparities in scientific research. Besides, accessibility plays a crucial role in maintaining scientific rigor and ensuring the quality of data collected in citizen science projects. When tools and methodologies are accessible, participants can follow standardized protocols and guidelines accurately. This consistency enhances the reliability of the data and allows for robust analysis and interpretation. It also enables comparisons across different projects or regions, facilitating broader scientific insights and collaboration. Accessible tools and methodologies accommodate citizen scientists with varying levels of expertise or prior scientific knowledge. Not everyone participating in citizen science projects will have a formal scientific background. By providing user-friendly tools, clear instructions, and support materials, citizen science projects can empower participants to contribute meaningfully, regardless of their scientific expertise. This promotes lifelong learning, scientific literacy, and the democratization of scientific research.



Secure spaces-Am I fostering an inclusive environment?

Ensuring safe and secure environments protects the well-being and privacy of participants, promotes ethical conduct, and maintains trust in the scientific process. The safety and well-being of participants should be a top priority in citizen science projects. Providing a safe environment ensures that participants are not exposed to physical, emotional, or psychological harm during their involvement. This includes addressing potential risks associated with fieldwork, data collection in sensitive areas, or interactions with certain organisms or materials. Safeguarding participant well-being fosters a positive and supportive experience, encouraging continued engagement and preventing negative consequences. Citizen science projects often involve the collection and analysis of personal or sensitive data. Ensuring data privacy and confidentiality is essential to protect the privacy rights of participants. Clear protocols should be in place to handle and store data securely, including measures to anonymize or de-identify personal information. Participants must have confidence that their data will be handled responsibly and used only for the intended scientific purposes.

Citizen science projects should adhere to ethical guidelines and standards. Participants should be informed about the goals, risks, and potential benefits of the project, and their informed consent should be obtained. Ethical considerations also include respecting cultural protocols, obtaining necessary permits for research activities, and ensuring compliance with applicable laws and regulations. Upholding ethical principles fosters transparency, accountability, and the responsible conduct of research (See Socio-Bee research protocol)

Citizen science projects that involve fieldwork or interactions with the natural environment should address potential risks and hazards. This includes providing adequate training, safety guidelines, and protective equipment to participants. Conducting risk assessments and implementing appropriate safety measures can minimize the likelihood of accidents or injuries. By proactively managing risks, citizen science projects can create a safer and more secure environment for all involved.

Step by step inclusive citizen science

In addition to analysing the extent to which it is necessary to protect and ensure diversity and inclusion in the different aspects that make up citizen science (the representativeness of the community, the data collected and the environment generated), it is necessary to reflect on how we should include this inclusive perspective throughout the entire citizen science process. In order to carry out this analysis, we have based ourselves on the contributions made by gender mainstreaming, which has meant a substantive advance in the incorporation of the gender perspective in public policies and also in research. In order for the process of incorporating inclusive processes to take place in a coherent and systematic way and not become a mere "ticking the box exercise", it is necessary to reflect on the need and the ways of guaranteeing inclusivity throughout the entire process.

In order to carry out this procedural analysis we have started from the phases of citizen science development identified by Tweddle et al.'s (2012) and will now go on to detail why and how to ensure inclusivity in each of the phases identified by these authors:





Step by step inclusive citizen science

1. Preliminary phase: definition of the citizen science project (before we start)

Before starting any citizen science project, it would be necessary to reflect on its potential impact and repercussions in terms of inclusion and diversity. To this end, it is necessary to reflect on:

- Collectives and groups that will benefit from the research.
- Collectives and groups that will be included from this research
- Which dynamics of vulnerability/exclusion can be reinforced or fostered by the citizen science project (focus or theme)
- Which dynamics of vulnerability/exclusion can be reinforced or fostered by the citizen science project (focus or theme)
- Which dynamics of vulnerability/exclusion can be reinforced or fostered by the citizen science project (typology of citizen science to be implemented)
- What opportunities may be missed by not adopting an inclusive approach from the formulation of the problem and the definition of the objectives.
- In terms of the data needed to meet the objective of my citizen science project:
- Quality and nature of the data to be collected
- Diversity and disaggregation of the data
- Implications for the people whose data will be collected or who will be involved in the process

2. Definition of the project and project team

The composition of the team is a fundamental aspect for the definition of the project, since the greater the diversity of the team involved in its definition and subsequent implementation, the greater the richness and ambition of the project. Furthermore, it is necessary to bear in mind that depending on the context in which we want to implement our project or the source of funding we want to access, there will be legal requirements and political guidelines that will have to be met. For example, in Europe, the European Commission has adopted a number of policies that reinforce Europe's commitment to equality, such as:

- a gender equality strategy
- an anti-racism action plan
- a strategic framework on Roma
- a strategy on the rights of LGBTIQ people
- a strategy on the rights of persons with disabilities

In addition to ensuring diverse participation in the design and composition of the teams, it is necessary to take into account when attributing roles and responsibilities in the project, being aware of the stereotypes surrounding each of the vulnerable collectives or groups in the area where citizen science is to be applied. This should ensure that all groups and groups can access and participate in all structures and phases of the project, as this will contribute to a better identification of the target audience of our project and their needs.



Step by step inclusive citizen science

3. Development phase

In Tweddle et al's methodological guide, this phase includes: designing the citizen science model; designing the tools or questionnaires, data requirements and technical requirements; testing and modifying protocols; and developing supplementary materials.

For this phase, it is essential to reflect on the implications of what we are asking the community to do in the project and the impact this may have on vulnerable groups or groups that are excluded from our scope of action. In this first phase, these authors talk about the design of the models and questionnaires or tools to be used in our citizen science project. It is important that the role of each participant is clear and that the protocols for action are simple, accessible and ensure a respectful and safe environment for all participants. In the case of the development of the model, which is directly related to the theoretical foundation that will support our project, it is necessary to reflect on whether these theoretical approaches influence the exclusion of any specific group, or, in other words, whether they provide knowledge about different groups that enriches the overall contributions of the project.

When designing and developing the project, it is also necessary to start thinking about evaluation, to ensure that we are collecting and systematising elements that we will be able to analyse later on..

In this phase of development, it is essential to reflect on the quantity, typology and quality of data to be collected and/or analysed through citizen science processes. Depending on the type of intervention selected, this reflection will require more or less detail. In any case, it must be ensured that the data obtained are representative, disaggregated and meet the quality standards necessary for the research. Directly related to the quantity and quality of the data, it is also necessary to analyse to what extent the technical means used and offered by the project are accessible to the participants, and what implications their inaccessibility may have for vulnerable groups and for the data to be analysed later (for example, that certain groups cannot access the technical means and that this results in the impossibility of collecting data or in the data being biased).

4. Live phase

During the implementation phase of the project, these authors argue that the team should aim for more than just communication of results and dissemination of calls for participation. On the contrary, in order for this phase to work, these authors state that the communication channels to be used, the use of social networks and how the different groups and collectives will be represented in this communication must be planned in advance. It is essential that in the live phase of the project constant attention is paid to the visibility that each of the groups obtains. From a formal point of view, it is necessary that the language used is inclusive and accessible, avoiding technical terms and jargon that cannot be understood by society as a whole.

Furthermore, the use of visualisations and materials that allow accessibility for people with disabilities and for groups with special needs (minors or the elderly) is recommended. At all times, care should be taken to avoid generalisations and stereotypes, as well as those issues that could lead to the perpetuation of stereotypes or hate speech.



Step by step inclusive citizen science

In addition to taking care of the formal aspects during the live phase of the project, it is also necessary to pay attention to the periodicity and processes of iteration and feedback to the community and participants. This fluidity in communication and in the relationship between the project team will make it possible to correct possible deviations and problems that arise in the implementation of the project.

From the point of view of the organisation of events and project spaces, in this phase the management and assurance of safe environments and spaces that promote an equal and participative participation of all groups and collectives is of special relevance. For this reason, special attention must be paid in this phase to the organisation of activities and events and to ensuring that the necessary protocols and measures are put in place to prevent situations of abuse and harassment. It will be necessary to ensure that all participants identify and are aware of the people and processes in place and in charge of the protection of participants and that access to these mechanisms is easy and equal for all groups.

Finally, from the data point of view, the live phase of the project should check that the data being contributed to the project from citizen science responds to the needs identified, is representative and of sufficient quality to draw conclusions. If this is not the case, the project must have the appropriate measures in place to reverse this situation and address the shortcomings identified in the data and collection processes.

5. Analysis and reporting phase

The data collection process should be carried out in a planned manner, as well as its analysis and in a way that ensures that all groups and collectives represented participate in the analysis and interpretation of the data.

In order for this analysis and monitoring to be carried out properly, it is important to define the indicators and questions necessary for a correct evaluation and interpretation of the data from the initial phases (phase 1 and phase 2).

It is also necessary to carefully plan and guarantee a process of feedback and reporting to the entities, actors and groups that have taken part in the project in order to thank and value their contribution to the project's objectives. This feedback and reporting will be carried out using a language and format adapted to the needs of each of the groups.

The ultimate objective of citizen science is to solve or respond to a specific problem, so in this last phase it will be necessary to determine how our project will respond to the objective defined in the initial phases in a way that responds to the needs of all the participating groups, guaranteeing inclusiveness and above all ensuring that no axes of discrimination are produced or fostered within the project



Community participation and representativeness

Justification

Community participation is needed in citizen science both for reasons of legitimacy and of the consistency of the results. Diverse people have the right to participate in scientific research, as well as they have the right to participate in other areas of sociocultural life. At the same time, as inclusive citizen science incorporates the contributions of people and groups with different perspectives (Doyle & Timonen, 2010), it benefits from a greater number and diversity of data and sources, and its scientific results are more consistent. Furthermore, there is no reason for the impact of these results on society not to be egalitarian. We have to be aware that non-inclusion is unfair and generates inequality and exclusion. The representation of groups in the project team will ensure that their interests and rights are always considered.

Reflection on community participation is a question of reflecting on whether any group and/or person that is a potential participant in the project or is a potential beneficiary thereof is left out. Exclusion may result from the fact that we do not know the characteristics of the people who form part of the community in which the project is being developed or that, even though we know them, we are consciously excluding some because we think that their social conditions make it difficult for us to reach them or for them to get involved in the project. While representation needs not be a direct replica of the composition of a population, participation in citizen science needs to reflect as much as possible on the characteristics and sensitivities that are part of a diverse society. Diversity brings a unique perspective on the values and priorities of the communities in which people live (Pandya, 2012; Holroyd-Leduc et al., 2016; Paleco, 2021). Good diversity management requires identification of which specific conditions of the in the target community and of the participants may require attention and/or specific actions, so that inclusion of those groups is guaranteed. That means identifying the axes of discrimination that prevent people from being part of the projects, promoting their participation and preventing disengagement.

Participation is promoted through the involvement of civil society groups and organisations, as they represent the interests, needs and concerns of their members. They also motivate other people and facilitate networking. However, there is a risk of consistently involving the same individuals or groups in every project, which could widen the gap with those who never participate.

It is likely that people, especially the most vulnerable populations, have or may have the desire to participate, but it is also likely that they do not know how to do so (Holroyd-Leduc et al, 2016). Various forms of interaction allow for the participation of different types of audiences, depending on their interests and capacities. This ensures multiple entry points and varied participation methods with varying degrees of interest, willingness and commitment. However, the existence of different levels should not be an excuse to keep the most vulnerable or less well-resourced people at the lowest levels, without the possibility of changing their role. It is important that individualized participation is allowed and fostered during all phases of the project.

Finally, inclusive participation demands that the project's impact on the community be equitable, meaning that the outcomes are not interpreted with bias. Additionally, the participants must be kept informed throughout the project about the impact of their actions, through accessible access to the project's results. Also, their contribution to science should be acknowledged.



Community participation and representativeness

RELEVANT CONCEPTS

Social exclusión

It is a process and a state resulting in a lack of access to full participation in mainstream society. Social inclusion, conversely, is a multi-dimensional process aimed at creating conditions that enable full and active participation of every member of society in all aspects of life, including civic, social, economic, and political activities, as well as participation in decision-making processes. (DESA, 2009).

Inclusive society

Is a society that over-rides differences of race, gender, class, generation, and geography, and ensures inclusion, equality of opportunity as well as capability of all members of the society to determine an agreed set of social institutions that govern social interaction. (Expert Group Meeting on Promoting Social Integration, Helsinki, July 2008)

In an inclusive society, members do not only have the right but actually do take part in the process. What is most significant in creating an inclusive society is the engagement of the individual in the process by which society is managed, ordered and represented.

Accommodating people with different backgrounds and working together to build a common future is a core value of an inclusive society (DESA, 2009).

Social Participation

It denotes an active involvement in the process, not merely having access to society's activities, but engaging in them, and building and maintaining a social network. Participation also creates a sense of responsibility towards others, a community or an institution, and influences decisions or enables individuals to have access to the decision-making processes. Social participation in a project implies an attitude towards the project motivated by and experienced as a member of a group of people or a community (Soleri et. al, 2016).

Equity

Equity is not the same as equality. Equality distributes the same benefits to all the people and assumes everyone should be treated the same regardless of needs, experiences, and opportunities. Equity, on the contrary, puts people on an equal footing by recognizing the systemic barriers that continue to oppress traditionally marginalized groups and implementing a fairer distribution of resources. In short, equity recognizes that barriers and privileges mean not everyone comes to the table with the same resources. Equitable projects aim to correct for those imbalances by improving procedures and processes (Pantic, 2021)



Community participation and representativeness

Axes of exclusion

Divisions according to which socially valued resources are distributed unequally. Thus, people, according to the social groups to which they belong or depending on their conditions, will have more or less access to specific resources (money, prestige, contacts, information, etc.). The theorising of intersectionality is closely related to the axes of sex, race and social class, but there is no exhaustive list of axes, nor can we establish a hierarchy among them. Currently, those most worked on in public policies in the European context are the following: Age / Life cycle; Disability / Functional diversity; Ethnicity/racialization; Origin/migration; Sex / Gender; Religion / beliefs; Sexual orientation and gender identity / LGBTBI; Social class. However, there may be other conditions that are exclusion factors in a given project.

Gender Equality

Gender Equality is related to ensuring equal rights, responsibilities and opportunities for women and men and girls and boys (EIGE 2016). The Council of Europe defines gender equality as “an equal visibility, empowerment and participation of both sexes in all spheres of public and private life. Gender equality is the opposite of gender inequality, not gender difference, and aims to promote the full participation of women and men in society. It means accepting and valuing equally the differences between women and men and the diverse roles they play in society. Gender equality includes the right to be different. This means taking into account the existing differences among women and men, which are related to class, political opinion, religion, ethnicity, race or sexual orientation.

Gender equality means discussing how it is possible to go further, to change the structures in society which contribute to maintaining the unequal power relationships between women and men, and to reach a better balance in the various female and male values and priorities” (Gender Equality Glossary, p. 3)

Gender Balance

“By gender balance, we refer to a situation where both males and females have equal opportunities and access to matters in all the institutions of the society, namely, religion, economy, education, culture, and polity.” (Omotosho 2013)



Community participation and representativeness

Gender role

(also known as a sex role (Levesque, 2011) is a social role encompassing a range of behaviours and attitudes that are generally considered acceptable, appropriate, or desirable for people based on their actual or perceived sex or sexuality (Alters, 2009; Gochman, 2018). As such, gender roles are closely related to how we construct our gender identities and the unequal importance attributed to feminine and masculine values. (Bourdieu, 1999; Connell, 1995; De Beauvoir, 1949; Firestone, 1976; Giddens, 1992; Gil, 2008; Lagarde, 1990; Martínez & Bonilla, 2000; Woolf, 1929).

Inclusive Language

Using gender-inclusive language means speaking and writing in a way that does not discriminate against a particular sex, social gender or gender identity, and does not perpetuate gender stereotypes. Given the key role of language in shaping cultural and social attitudes, using gender-inclusive language is a powerful way to promote gender equality and eradicate gender bias” (UN)

Inclusive dissemination

It means ensuring that results are shared in a manner that respects the dignity and diverse perspectives of all participants. It ensures that the benefits of the research reach a broader audience and that diverse perspectives are respected and valued throughout the communication process. It empowers citizen scientists by recognizing and valuing their contributions and fosters a sense of ownership and pride among participants, reinforcing the idea that their efforts are integral to the project's success. Inclusive communication methods consider various formats, languages, and accessibility needs to ensure that the results are accessible to a wide audience. This may include providing information in multiple languages, using plain language summaries, and offering alternative formats for those with visual or hearing impairments. Especially because Citizen science often involves local communities, inclusive dissemination engages these communities by making the results relevant and accessible. It encourages ongoing dialogue and collaboration, fostering a sense of shared responsibility for both the process and outcomes.



Community participation and representativeness

USEFUL TOOLS

1. Vision for an Inclusive Society" (DESA 2009)

The document delves into the definition and elements of an inclusive society, examines areas of social inclusion and exclusion, discusses approaches to promoting social inclusion, and concludes with a list of references and resources for further research. It adds significant value to citizen science projects by providing a comprehensive framework for promoting social inclusion. It defines the concept of an inclusive society, emphasizing essential elements required for inclusivity. The document maps areas of social inclusion and exclusion, identifying marginalized groups, which is crucial for citizen science projects to ensure diverse and equitable participation. The strategies discussed for removing obstacles to social inclusion and developing an inclusive policy framework offer actionable insights for citizen science initiatives, promoting broader engagement. Furthermore, the exploration of costs and benefits associated with social inclusion provides valuable perspectives for citizen science project planning, fostering a more inclusive and equitable approach to scientific collaboration.

The document is available here: <https://www.un.org/esa/socdev/documents/compilation-brochure.pdf>

2. Inclusive London (Greater London Authority, May 2018)

Informational document incorporating a positive approach to social diversity policies in the city of London. It provides a simple language glossary of terms and outlines avenues for the inclusion of different groups in areas such as housing, accessibility, participation, sustainability, care, employment, transportation, mobility, and security.

The document is available here: <https://www.london.gov.uk/programmes-strategies/communities-and-social-justice/mayors-strategy-equality-diversity-and-inclusion>



Community participation and representativeness

Deusto guidelines to mainstream gender in research

DEUSTO has published the Guide for the incorporation of gender mainstreaming in teaching and research, which was part of the Deusto Equality Plan and the GEARING-Roles project and was supported by the University Social Responsibility Department (USR) of the University.

This Guide, result of collaborative work of around 60 members of the academic community, and led by María Silvestre Cabrera (Head of Equality at the University of Deusto, PI of the Deusto Social Values Team and member of the Gender Interdisciplinary Research Platform), is proposed as an instrument to help teachers and research staff to incorporate the gender mainstreaming in academic activities and the university life.

The guide is organized into three large blocks: the incorporation of the gender perspective in research, in teaching, and a final glossary. Given that it is a tool that seeks to be a real support for teaching and research staff, the two areas are presented in a parallel and related way, recognizing that there is no good teaching without research activity behind it, nor quality research without willingness to transfer knowledge. Therefore, the pragmatic sense, clarity, didactic sense and ease of use have prevailed. To this end, each section presents the objectives, the justification, the different processes and provides real examples of how to apply this gender mainstreaming. To the question of WHAT, the question WHY and HOW are added, and this structure is maintained in both research and teaching sections. In each phase of the research process, and in the phases of the teaching-learning process, concrete examples are provided that provide a set of useful resources that can be implemented immediately.

The Guide has been published on the USR website, in Spanish, Basque & English.

Gear Tool: Gender Equality in Academia and Research

The Gender Equality in Academia and Research (GEAR) tool provides universities and research organisations with practical advice and tools through all stages of institutional change, from setting up a gender equality plan to evaluating its real impact. Divided in four sections: What? Why? How? Where? The Gear tool provides a step by step guidance to draft Gender Equality Plans in Research Organisations and also collects successful experiences and inspiring resources. The structure and content of the gender equality in academia and research (GEAR) action toolbox are strongly oriented towards the areas recommended by Horizon Europe, and descriptions strongly build on the Horizon Europe Guidance on Gender Equality Plans.



Community participation and representativeness

YW CHECKLIST FOR GENDER IN RESEARCH

The Yellow Window (YW) toolkit for gender mainstreaming was developed as part of the 7th Framework Programme to promote gender equality in scientific research. The toolkit and associated one-day training sessions aimed to equip the research community with practical tools to integrate gender aspects into FP7 research, fostering equal opportunities for women and men and considering the gender dimension of research. The training sessions covered a general introduction to gender in research in the morning, followed by addressing specific research fields with practical exercises in the afternoon. The toolkit included case studies from various research areas, such as health, agriculture, energy, environment, and socio-economic sciences, among others. The objective was to contribute to excellence in research by demonstrating how gender is interwoven with all aspects of research.

The toolkit and training sessions were free of charge, and participants were responsible for their own travel and accommodation arrangements. The content of the toolkit was available in English and Spanish, and the training sessions were conducted across different locations in Europe.

The training focused on practical aspects, combining cognitive (knowledge-based) and inductive (experience-based) elements, encouraging an interactive workshop format where participants could contribute to the sessions.

contact gender@yellowwindow.com for further information.

Within this toolkit there is a specific module on the impact of gender equality in environmental science. In this section of the toolkit, the focus is on examining the relevance of gender considerations within the specific field of Environment particularly in the Seventh Framework Programme (FP7). The content begins by briefly highlighting the general significance of gender aspects in the field. It then delves into a more detailed exploration of topics outlined by the European Commission in the field's work programme. The toolkit offers suggestions regarding gender-relevant issues that research teams in this field may address. To demonstrate how research in the Environment field can integrate gender sensitivity, three real-life project examples are presented. Each case includes a brief description of the project along with a discussion of gender-related issues, considering both equal opportunities and the content of the work. These examples were drawn from project summaries available on the CORDIS FP7 website and cover various topics within the field's work programme. The section concludes by providing a selection of useful references that deal with gender considerations in the context of Environment. Although this content was developed on the basis of the VET Work Programme, the guidelines and conclusions drawn are equally valid for projects under other Framework Programmes.



Community participation and representativeness

GARCIA Toolkit for Integrating Gender- Sensitive Approach into Research and Teaching

This toolkit holds significant value for citizen science initiatives as it aligns with the European Commission's commitment to fostering gender sensitivity in research and teaching, a principle upheld across different framework programmes. Embracing a gender-sensitive approach enhances the quality and validity of research and teaching by making results more relevant for society, fostering new paradigms in research institutions, and increasing competitiveness in proposal writing. Gender-balanced research teams are shown to perform better and attract top-level researchers, while a gender-sensitive approach encourages the use of more nuanced research methodologies. The toolkit emphasizes gender equality as a guiding principle in the Horizon 2020 programme. Specifically designed for researchers involved in the GARCIA project, the toolkit aims to assist in integrating the gender dimension into ongoing research, teaching activities, and the development of new projects and curricula, particularly in test institutions. It prompts research and teaching staff to consider the relevance of gender in their work, advocating for a gender-sensitive approach that encompasses all stages of research, from the initial idea to the presentation of results. Additionally, the toolkit underscores the importance of ensuring equal participation for both women and men in scientific work, encompassing considerations for transgender and transsexual populations.



Community participation and representativeness

Gender-inclusive language guidelines

The Gender-inclusive language guidelines are a set of recommendations aimed at promoting gender equality and combating gender bias through the adoption of language practices that are inclusive and free from gender stereotypes. These guidelines emphasize the significant role language plays in shaping cultural and social attitudes. Gender-inclusive language, also known as gender-neutral language, avoids bias toward a specific sex or social gender, making it less likely to convey gender stereotypes.

Historically, the English language often used masculine nouns and pronouns in a generic manner, but this practice was challenged by the women's movement in the 1970s. Feminist linguists played a crucial role in revealing the gendered nature of linguistic rules and norms, contributing to the widespread adoption of gender-neutral language to convey inclusion for all sexes or genders.

The guidelines provided by UN Women specifically focus on facilitating gender-inclusive writing, review, and translation of English-language documents. These guidelines are dynamic and responsive, acknowledging the evolving nature of language and societal norms. Similar guidelines are also available in French and Spanish to ensure the gender-inclusive use of language in documents written in these languages. Overall, the Gender-inclusive language guidelines serve as a tool to encourage the use of language that reflects and promotes gender equality.

Pronoun use in email signatures – Public Service Commission

The guidance from the Te Kawa Mataaho Public Service Commission emphasizes the importance of using correct pronouns in the workplace to create a sense of belonging and respect, particularly for Rainbow communities. Pronouns, such as she/her, he/him, or they/them, play a significant role in acknowledging and celebrating diversity and inclusion. The guidance encourages individuals, especially cisgender people, to include their pronouns in email signatures as a way to normalize this practice, protect transgender and gender-diverse individuals, and signal allyship with the LGBTQIA+ community.

The process of including pronouns involves adding them after one's name in the email signature and hyper-linking them to a webpage for further information. The guidance also provides suggestions for dealing with negative reactions, encouraging individuals to report discrimination to their team leader or HR department. Additionally, it offers alternative ways to promote inclusivity, such as starting meetings with pronoun sharing, updating LinkedIn profiles with pronouns, politely asking others about their pronouns, and avoiding terms like 'preferred' or 'gender' pronouns. The guidance emphasizes the importance of acknowledging and correcting mistakes when pronouns or names are misused and encourages active allyship to promote understanding.



Community participation and representativeness

Age inclusive language

The guidance on age-inclusive language and content underscores the importance of avoiding stereotypes and discriminatory language when referring to age. Emphasizing that a person's age conveys only the number of years they have lived and holds no qualitative value, the guidance discourages unnecessary references to age that can contribute to exclusion, ageism, or discrimination. NZ law protects against age-based discrimination, as highlighted by the NZ Human Rights Commission.

When age is relevant, the guidance encourages the use of correct and respectful language, cautioning against terms like 'young,' 'old,' or 'mature,' which can carry unintended or negative meanings. Numerals are recommended when mentioning age in context, offering examples for proper usage. The guidance advises against labeling people by generational terms and suggests using birth years instead. Examples provided distinguish between appropriate and inappropriate terminology for both older and younger age groups, emphasizing the diverse nature of these populations.



Community participation and representativeness

Specifically for older people, the guidance suggests using terms like 'older people' while avoiding terms like 'senior,' 'old people,' or 'the elderly.' For younger people, inclusive terms like 'young people,' 'youth,' and specific developmental phases are encouraged, with caution against potentially negative terms like 'youths,' 'young adults,' or 'kids.'

In the context of employment and retirement, the guidance favors terms such as 'older workers' or 'older employees' instead of potentially stigmatizing terms like 'mature workers,' 'retirees,' 'retirement age,' or 'early retirement.' The overarching goal is to promote language that respects the diversity of age groups and avoids perpetuating stereotypes or biases.

Guiding Principles for Using Inclusive Language

NASAA, a national nonpartisan organization supporting state arts agencies, emphasizes the importance of inclusive language in promoting respect and dismantling biases rooted in historic injustice. The organization recognizes that words hold power and can either convey respect or perpetuate disregard and scorn. The use of language, deeply ingrained from infancy, may unconsciously perpetuate harm. Acknowledging this bias is crucial for unveiling inequities in language and actions.

As part of state government, state arts agencies have the opportunity to champion inclusive language, fostering a culture of equity. This curated list of inclusive-language resources guides state arts agencies in:

Choosing language that includes rather than excludes.

Choosing language that acknowledges, accepts, and celebrates differences.

Choosing language that is welcoming to everyone.

By adopting inclusive language, state arts agencies contribute to ensuring that all populations have access to the arts and public resources, aligning with the principles of equity in the arts and cultural community. This commitment to inclusive language reflects the belief that the arts' feelings and experiences unite people from diverse backgrounds.



Community participation and representativeness

Oxfam Inclusive Language Guide

Language has the power to reinforce or deconstruct systems of power that maintain poverty, inequality and suffering. As we are making commitments to decolonization in practice, it is important that we do not forget the role of language and communications in the context of inequality. The Inclusive Language Guide is a resource to support people in our sector who have to communicate in English to think about how the way they write can subvert or inadvertently reinforce intersecting forms of inequality that we work to end. The language recommended is drawn from specialist organizations which provide advice on language preferred by marginalized people, groups and communities, and by our own staff and networks, to support us to make choices that respectfully reflect the way they wish to be referred to. We want to support everyone to feel empowered to be inclusive in their work, because equality isn't equality if it isn't for everyone.

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Inclusive Data and Data analysis

Justification

Solving environmental problems such as improving air quality requires scientific data collection and analysis by interdisciplinary teams (Moustard et al. 2021). However, recent works affirm that in order to foster a meaningful participation of the diverse groups in the citizen science, their involvement is needed not only in the data gathering, but also in the design of the project (Parrish et.al, 2019), in the analysis of the data, and in acting on the results, (Ehrlich and Ehrlich, 2013; Daguitan et al., 2019).

According to the classification made by Haklay (2013), there are 3 types or levels of participation in citizen science: Long-running citizen Science, Citizen cyber science and Community Science. However Moustard et al refer to 4 different categories: crowdsourcing science (Howe, 2006), understood as citizen science in which citizens are used as "sensors" and whose intervention is limited to data gathering; "distributed intelligence", where cognitive skills of citizens are required and they do not only collect data, but also analyse them; third, "participatory Science" refers to the process where citizens do not only gather data and analyse data, but also contribute to a problem definition, although the process is led by scientist, who control the development of the protocol, and do most of the analysis; finally, the fourth level is what they call "Extreme Citizen Science and relates to process where the citizens themselves take the lead on all stages of the scientific process, and professionals act as support when needed.

In addition to the design of the technology and activities, the context and timing are also relevant. For example, data collection should be able to be applied as part of the routines and in the environments that are part of the daily lives of the participants, trying to disrupt daily life as little as possible (Barrie, 2019) and ensuring that participation in the process does not involve additional efforts that may lead to abandonment and consequent exclusion in practice. Furthermore, the use of support measures should not be ruled out, including participation through third parties (e.g. personal assistants, facilitators, trusted persons...) that can contribute to ensuring the full inclusion and participation of the person with functional difficulties (Soleri et. et. al, 2016; Holroyd-Leduc et al, 2016).

A good strategy is to use mixed methods that allow not only the collection of data related to the object of study, but also elements of the physical and social context (Tiago, 2017), subjective and qualitative insights useful for data triangulation and constant real-time interaction with other researchers (Katapally, 2018).

Characteristics of inclusive data

Citizen science processes have recently been seen as an opportunity to diversify data and fill gender data gaps (Kimura & Marks, 2021). According to Claudia Wells, Director of Data Use, inclusive data are those collected for all people, regardless of their location, ethnicity, gender or age Intersectionality of data, and intersectional analysis of data is also highlighted (Wells cf.). In order to respond to this inclusive logic, the data collected from participants must be disaggregated, representative and traceable.

Principles



Principle One - All populations must be included in the data

We can only achieve the "leave no one behind" goal by empowering the furthest behind. This means ensuring their voices are heard and their experiences are represented through data and analytics. We need to acknowledge all people, make them visible in the data to understand their lives, and include them in the development process.



Principle Two - All data should, wherever possible, be disaggregated in order to accurately describe all populations

We recognize that data should be disaggregated by sex, age, geographic location, and disability status and, where possible, by income, race, ethnicity, migratory status, and other characteristics relevant in national contexts.



Principle Three - Data should be drawn from all available sources

We recognize the need to make high-quality, timely data from official and non-official sources accessible, and that these should include new data sources, where consistent with internationally accepted statistical standards.



Principle Four - Those responsible for the collection of data and production of statistics must be accountable

We will balance the principles of transparency - maximizing the availability of disaggregated data - confidentiality, and privacy to ensure personal data is not abused, misused, or putting anyone at risk of identification or discrimination, in accordance with national laws and the Fundamental Principles of Official Statistics.



Principle Five - Human and technical capacity to collect, analyze, and use disaggregated data must be improved, including through adequate and sustainable financing

We recognize that collecting and analyzing disaggregated data needs specific skills and these must be built. We recognize the need to finance data collection, analysis, and use appropriately and sustainably so that high-quality data can be collected and used by governments as well as by businesses, civil society, and citizens.



Inclusive Data and Data analysis

Key principles when collecting data:

Data must always be disaggregated by sex as a primary, overall classification. For example, when collecting statistics on 'young people' or 'older people', make sure that the target group is disaggregated by sex.

In addition to quantitative data on specific characteristics, analysis needs to take into account qualitative data on people's lived experiences.

It is important to use information from a range of sources (e.g. local and sub-national studies or consultations) and combine various data sources (e.g. data from statistical offices, academic works and policy reports) for a comprehensive understanding of on-the-ground realities.

When data on race or ethnicity, age, disability or sex are not available, this should be identified as a gap. Activities to improve available data could be part of programmes and local projects. Efforts to improve data could be considered in project objectives and reporting.

Gender-specific data on work-life balance contributes to better understanding of how work and care responsibilities are divided between women and men. Data on employment and time use sheds light on gendered patterns of paid and unpaid work.

It is vital to tailor any analysis to the local context, including analysis of local data. This can be achieved by involving national or local gender experts, consulting civil society organisations – especially women's organisations – making use of national research, and triangulating information.

How can this be done?

- Use clear and simple language that does not require specialised knowledge to understand the questions and answer options.
- Avoid using technical terms or jargon that may be unfamiliar to people who do not have expertise in a particular area.
- Use inclusive response categories that do not exclude minority groups. For example, instead of "male" or "female", use "male gender", "female gender" and "other gender".
- Include response options that reflect cultural and ethnic diversity. For example, instead of 'white' or 'black', use 'Caucasian', 'African', 'Asian', 'indigenous' and 'other'.
- If possible, allow respondents to write their own answers. This will allow them to express themselves in their own words and prevent them from feeling constrained by the pre-defined response options.



Inclusive Data and Data analysis

USEFUL TOOLS

Disaggregated Data Action Plan

Canada's Disaggregated Data Action Plan (DDAP) is a comprehensive initiative led by Statistics Canada to address the need for more detailed and inclusive data. The plan focuses on producing disaggregated data, broken down by gender, ethnocultural characteristics, age, sexual orientation, disability, and geography, to reveal the diverse experiences of specific population groups. The target audience includes Indigenous peoples, women, visible minorities/racialized populations, and persons with disabilities, with considerations extended to other relevant groups. The guiding principles of the DDAP emphasize disaggregation at the lowest level of detail, intersectionality analysis, adherence to standards, and releasing data at the lowest geographical level.

To achieve more detailed data, Statistics Canada employs data linkage, securely combining census and survey data with administrative data. This approach reduces survey burden on Canadians and enhances accuracy. The DDAP has led to the addition of questions on gender, Indigenous identity, ethnicity, and location in various surveys, allowing for more in-depth analysis. The plan has also increased sample sizes in key surveys, enhancing accuracy and enabling detailed disaggregation. Administrative data have been linked to explore health outcomes and conduct studies on wage inequalities, housing experiences, over-representation of Indigenous peoples in custody, and educational and economic outcomes for diverse populations.

Statistics Canada collaborates closely with partners, providing funding under DDAP Administrative Fund to improve disaggregated administrative data. This collaborative effort ensures the plan addresses key social and economic issues, contributing to a growing body of disaggregated evidence in Canada. The DDAP's achievements include collaborations on the Uniform Crime Reporting Survey, the development and adoption of data standards, and partnerships with cities to address municipal data gaps. Overall, the DDAP significantly contributes to inclusive citizen science by inspiring on detailed data that informs evidence-based decisions, strengthens government efforts to address systemic issues, and promotes a more equitable Canada.

Inclusive data to leave no one behind – best practices in data disaggregation and use
The Director of Data Use at Development Initiatives, Claudia Wells, emphasizes the importance of inclusive data for achieving the Sustainable Development Goals (SDGs) and leaving no one behind. In partnership with the Global Partnership for Sustainable Development Data, Development Initiatives and the Office for National Statistics have committed to the Inclusive Data Charter. Inclusive data involves collecting information for all people, irrespective of location, ethnicity, gender, or age, aiming to close data gaps that perpetuate discrimination and bias. The Charter, guided by five principles, calls for the inclusion of all populations in data, disaggregation wherever possible, drawing data from all available sources, accountability in data collection, and improving human and technical capacity.



Inclusive Data and Data analysis

Wells discusses the need for robust Civil Registration and Vital Statistics (CRVS) systems, emphasizing the P20 Initiative that tracks progress for the poorest 20% of the world's population. She underscores the importance of intersectionality in data disaggregation, providing examples from education and the P20 approach. The text emphasizes making the most of existing data, ensuring its use and openness, and investing in users' capabilities, particularly focusing on empowering women in data-related roles.

To make citizen science more inclusive, the learnings from this text underscore the significance of collecting and utilizing disaggregated data that accounts for diverse identities. This involves considering factors such as location, ethnicity, gender, age, and their intersections. The emphasis on comprehensive CRVS systems highlights the need for accurate and inclusive representation, ensuring that no one is left behind in official statistics. The call for open and accessible data aligns with the principles of transparency and collaboration in citizen science, promoting the sharing of information for broader participation and understanding. Additionally, investing in the capability of users, particularly women, can contribute to creating a more inclusive and diverse community engaged in citizen science initiatives. Overall, the key lessons advocate for an inclusive, transparent, and collaborative approach to data collection and usage, aligning with the principles of inclusive citizen science.

Inclusive data charter

The Inclusive Data Charter (IDC) is a mobilization effort that focuses on political commitments, collaboration with partners, and knowledge-sharing to promote the use of inclusive and disaggregated data. The charter's objective is to enhance the availability and utilization of such data, enabling governments and organizations to better comprehend, address, and monitor the needs of marginalized populations, ensuring that no one is left behind. The overarching goal by 2030 is to generate more specific data, aiding in the effective allocation of resources to those who require them the most. Inclusive Data Charter Champions play a crucial role by developing action plans, outlining concrete steps to realize the IDC's vision and principles. Additional resources, including the IDC vision and principles, frequently asked questions, and a comprehensive list of IDC Champions with their respective action plans, are available for further exploration.



Inclusive Data and Data analysis

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- "The Center for Inclusive Design and Innovation" (CIDI): El sitio web del CIDI tampoco tiene un DOI específico, pero puedes acceder a su página web aquí: <https://www.buffalo.edu/cidi.html>



Accessibility of the tools

Justification

Creating more inclusive and less biased technology starts with a human rights-based design and regulatory processes. This means focusing on the voices of marginalised and vulnerable women, and including social and behavioural scientists and human rights practitioners in the design of new digital toolkits. It also means explicitly addressing the tensions that arise when different rights are exercised online, such as the use of freedom of expression versus the right to security. And it means making ethical frameworks enforceable by incorporating them into international human rights norms and standards.

The causes can range from the high price of the devices to the lack of knowledge about their use or the lack of infrastructure for their access. In this regard, we review the types of digital divide: Access divide, Use divide and Quality of use gap.

When we talk about inclusive language, we often refer to the grammatical rules and uses of different languages, the use of which can help different people in the community to feel more integrated and involved in the message. However, there is another dimension to the inclusiveness of communication that has to do with the accessibility of tools and resources.

Thus, it is important to ensure that all people, including people with disabilities, can access them. While the intention to make a demographic group such as persons with disabilities visible is more than valid, there is frequently a cognitive dissonance according to which both conversations (gender equality and rights of persons with disabilities) cannot exist in the same space. We therefore refer here to empowering its users, to give them a way to be functional in a context of different capacities, not of a different identity.

This digital divide can exacerbate existing inequalities and lead to social exclusion, where certain groups are marginalized and excluded from important social and economic opportunities.

Therefore, it is important to work towards bridging the digital gap by providing equal access to technology and the internet to all individuals and communities. This can be done through policies and initiatives aimed at improving infrastructure and making technology more affordable and accessible. By closing the digital divide, we can promote social inclusion and create a more equitable society where everyone has equal opportunities to thrive



Accessibility of the tools

RELEVANT CONCEPTS

Access divide.

It refers to the possibilities that people have to access this resource. This is where socio-economic differences between people and between countries come into play, since digitisation requires very costly investments and infrastructure for less developed regions and for rural areas.

Use divide.

It refers to the lack of digital skills, which impedes the handling of technology. In this regard, and to give an example, the ITU points out that there are 40 countries in which more than half of their inhabitants do not know how to attach a file to an email.

Quality of use gap.

Sometimes they have the digital skills to find their way around the technology, but not the knowledge to make good use of and get the most out of it. For example, with regard to access to quality information.

Digital gap

Refers to the unequal distribution of access to technology and the internet, which can result in disadvantaged individuals and communities being left behind. For example, people who live in rural areas or low-income neighborhoods may have limited access to high-speed internet or the latest technologies, which can make it harder for them to access education or job opportunities.

Accessibility language

Also known as communication accessibility, refers to the names, resources and linguistic systems that facilitate the participation of people with disabilities in everyday life. It encompasses different topics, such as how to refer to people with disabilities in a correct and humane way, specific communication methods such as sign language or Braille, tactile sign language, Morse code, among others.



Accessibility of the tools

Accessible formats

Physical, sensory, cognitive, and intellectual disabilities can affect an individual's ability to perceive and understand information. If the information in a questionnaire is not accessible to people with functional diversity, they may be excluded from participating in the survey, which can lead to inaccurate or incomplete data and a lack of representation in decision-making processes. Making sure that the information in a questionnaire is perceptible to people with functional diversity can involve using accessible formats, such as braille, large print, audio recordings, or sign language interpretation, among others. It can also involve using clear and simple language, avoiding jargon, and providing explanations of technical terms

Accessible technology

Refers to technologies designed and developed in such a way that they are accessible to and usable by all people, regardless of their physical, cognitive or sensory abilities. This means that accessible technologies are designed to take into account the needs of all people, including those with disabilities or limitations in their ability to interact with digital devices

Universal design

Universal design is an approach to creating products, environments, and materials that are usable by the widest range of people possible, regardless of their abilities or limitations. This may involve designing materials with features such as simple and intuitive navigation, clear and concise language, and consistent layout and formatting.

Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where necessary. (Convention on the Rights of Persons with Disabilities 2006, Article 2)

Universal design principles (Ginnerup, 2010)

- Equitable use: marketable and useful for people with a range of disabilities.
- Flexibility of use: adaptable to a wide range of individual preferences and abilities.
- Simple and intuitive to use: easy to understand regardless of the user's experience or knowledge, language proficiency or level of concentration at the time.
- Perceptible information: conveys the necessary information to the user effectively, regardless of environmental conditions or the user's sensory capabilities.
- Tolerance of error: minimises the risk and adverse consequences of accidental or unintended actions.
- Limited physical effort: can be used effectively and comfortably and with a minimum degree of fatigue.
- Size and space: appropriate for approach and access, handling and use, regardless of the user's body proportions, posture or level of mobility.



Accessibility of the tools

USEFUL TOOLS

1.- Accesible Digital Office Document (ADOD) Project

Accessibility of Office Documents and Office Applications
The document is available here:<https://adod.idrc.ocadu.ca/>

2.- WebAIM

WebAIM provides a wide variety of services, but our goal is always the same—to expand the potential of the web for people with disabilities by empowering individuals and organizations to create accessible content

The document is available here:<https://webaim.org/services/>

3.- The World Wide Web Consortium (W3C)

W3C standards define an open web platform for application development. The web has the unprecedented potential to enable developers to build rich interactive experiences, that can be available on any device.

The document is available here <https://www.w3.org/standards/>



Accessibility of the tools

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Secure spaces and inclusive participation

JUSTIFICATION

Creating a welcoming, respectful, and safe environment in face-to-face or online meetings can have many benefits, including increased participation, improved relationships, better decision-making, reduced conflict, increased diversity and inclusion, and improved well-being. By making an effort to create such environments, we can promote productivity, inclusivity, and positivity in meetings and other collaborative settings. By using inclusive language, we can help to create a safe and welcoming environment for all people, regardless of their identity or background. It is important to be mindful of the words we use and the impact they can have on others, and to strive for language that is inclusive, respectful, and affirming. A space of interaction free from harassment can be ensured for all individuals, regardless of their sex, gender identity and expression, sexual orientation, disability, physical appearance, body size, race, or religion.

Inclusive language is essential when discussing secure spaces in citizen science for several reasons, as it contributes to a more welcoming and equitable environment. Inclusive language ensures that individuals from diverse backgrounds, including those of different genders, ethnicities, abilities, and identities, feel welcome and encouraged to participate in citizen science projects. This broadens the pool of contributors and promotes a richer, more representative dataset. It helps avoid perpetuating stereotypes or unintentional biases that may exist in societal norms. By using language that is respectful and considerate of various identities, citizen science projects can prevent reinforcing harmful stereotypes and biases. Moreover, Inclusive language promotes cultural sensitivity, acknowledging and respecting the diversity of cultures and backgrounds represented in citizen science initiatives.

This is particularly important when working with communities that may have distinct cultural perspectives and ways of expressing themselves. Secure spaces often involve discussions around sensitive topics or personal experiences. Inclusive language is crucial for respecting the privacy and consent of all participants, ensuring that individuals feel comfortable sharing their perspectives without fear of judgment or exclusion.

In online participation, having a moderator is often necessary to encourage respectful participation and maintain a safe and constructive environment. Moderators play a crucial role in ensuring that discussions remain productive, respectful, and free from disruptive behavior. A moderator has the authority to handle disruptive users who repeatedly violate guidelines or engage in behavior that negatively impacts the community.



Secure spaces and inclusive participation

In addition, it is important to inform participants about the reporting protocols before participation begins, to provide participants with clear and detailed information on the steps to follow when reporting situations of vulnerability or risk. Always, keep participants informed about the progress and actions taken in response to the reports filed. It is necessary to provide feedback on the actions taken and, when applicable, implement corrective measures to prevent future situations of vulnerability or risk.

RELEVANT CONCEPTS

Abusive or harassing behavior

Abusive or harassing behavior may include physical violence, verbal attacks, bullying, cyberbullying, stalking, sexual harassment, discrimination based on race, gender, sexuality, religion, or other factors, and other forms of behavior that cause harm or distress to others. It is important to recognize and address abusive or harassing behavior in order to create safe and respectful environments for everyone not only face-to-face but online meetings too.

Safe remote spaces

Refers to to feel secure when sharing their personal data and actively contributing to a virtual scientific project. By ensuring that their data will not be used inappropriately or disclosed without their consent, trust is promoted, and fear of discrimination or reprisals is eliminated. Reporting situations of vulnerability and risk in virtual participation.

Moderator

Moderators play a crucial role in ensuring that discussions remain productive, respectful, and free from disruptive behavior. A moderator sets the tone for online discussions by promoting respectful and inclusive communication among participants. They can establish clear guidelines and expectations for behavior, encouraging users to engage in constructive dialogue while discouraging personal attacks, hate speech, or any form of harassment. By actively promoting respect, moderators help create a welcoming and safe space for participants.



Secure spaces and inclusive participation

USEFUL TOOLS

1.-Create Safe Digital Spaces on Social Media

Community Moderation is a key element to building and maintain a respectful, and inclusive digital space. Careful strategic moderation of online conversations helps build trust among community members, which, in turn, can nurture diverse and resilient communities and foster strong relationships among members.

The document is available here: <https://rhn2.com/create-safe-digital-spaces-on-social-media>

2.- SafespacesAlliance

To Consult a list of safe space resources in the "Resource" section. Seek and request training. Your local LGBTQI+ organisation may be able to provide training

The document is available here: <https://safespacealliance.com/digital-safe-spaces/>



Secure spaces and inclusive participation

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