

TREx Form 2:
Turing Research
Ethics Approval Application Form

Part 1: Introduction and basic guidance on completing this TREx Form 2

TREx Form 2 should be completed by the Research Project Manager employed by the Turing, the Tier 1 Turing Contract Lead and/or the Tier 2 Turing Contract Lead, and the researcher of relevant seniority who will work on this research project and who is employed or seconded to the Turing. One or both/all individuals are referred to as the “**Relevant Person(s)**” (provided they are employed by or seconded to the Turing). The Relevant Person(s) are responsible for completing this TREx Form 2 and for navigating the application through the TREx Process.

You should complete TREx Form 2 once you have received a response to your completed TREx Form 1 and it is clear that your research project falls within the definition of ‘Eligible Research’ and so will be subject to ethical review through the Turing Research Ethics (TREx) Process.

TREx Form 2 has three (3) parts:

- Part 1 is an introduction and provides basic guidance for completing this form.
- Part 2 asks for basic details about the research project.
- Part 3 provides questions for applicants to reflect on the ethical considerations their work raises. Your answers should demonstrate to the TREx Reviewers and TREx Panel that you have made sufficient efforts to identify and mitigate ethical concerns in accordance with the TREx Framework.

Please note that the TREx Framework and the questions asked in Part 3 of this Form are based on the FAST Principles described in the 2019 Turing report, [*Understanding Artificial Intelligence Ethics and Safety*](#) (by David Leslie et al.). These Principles are:

- **Fairness**
- **Accountability**
- **Sustainability**
- **Transparency**

Furthermore, the FAST Principles are underpinned by the **SUM Values**, which are values that Support, Underwrite and Motivate all responsible research ecosystems. The SUM Values are:

- **Respect** the dignity of individual persons
- **Connect** with each other sincerely, openly and inclusively
- **Care** for the wellbeing of each and all
- **Protect** the priorities of social values, justice, and the public interest

As you complete Part 3 of this TREx Form 2, please reflect on how your research project upholds the FAST Principles and adheres to the SUM Values.

When completing this TReX Form 2, we recommend that you:

- Employ lay terms where possible – this is not a technical report;
- Provide as much detail as possible so the TReX Reviewers and the TReX Panel have clarity where possible regarding the research project. Where there are ambiguities, please feel free to say so;
- Be candid about potential risks – **there is no such thing as a research project that does not raise ethical concerns;**
- Be honest about uncertainties – where there are ethical questions to be investigated as part of the research project, say so; where there are concerns that are out of scope to mitigate, consider how you might still communicate these in outputs or address them in further work;
- Describe methods and tools employed to mitigate the risks you identify – the TReX process should not be reduced to a risk-benefit analysis weighing up pros and cons;
- Share links to relevant documentation, such as data dictionaries or sites with information about your research project; and
- Do not hesitate to copy and paste responses from other documents pertaining to your research project.

You should refer to the TReX Form 2 Practical Guidance document which contains examples on how to complete this Form.

Part 2: Research Project Details

2.1. What is the title of your research project? Please use the same name that you used in TReX Form 1.

Turing formal name: Participatory Citizen Science: Engaging the public in Turing research projects

Externally referred as: AutSPACes – *Autism research into Sensory Processing for Accessible Community Environments*

2.2. Which Turing programme is your research project a part of?

Tools, Practices & Systems

2.3. What is your full name?

David Sarmiento Perez

2.4. What is your role in the project? [For example: Tier 1 Turing Contract Lead, Tier 2 Turing Contract Lead, Research Project Manager, Principal Investigator]

This TReX Form 2 must be completed by an employee of or secondee to the Turing who is a “Relevant Person” on this research project. The Relevant Person(s) can either be the Tier 1 Contract Lead, Tier 2 Contract Lead, Research Project Manager, or the researcher of relevant seniority who is employed by or seconded to the Turing.

*Please note that a researcher who is at the Turing ONLY via a funding agreement or a fellowship agreement that does not have a secondment/employment agreement connected with it is **not** a Turing employee or secondee, and so cannot be the Relevant Person for the purposes of this TReX Form 2.*

Research Project Manager

2.5. Please provide an email address at which we can reach you (must be a Turing email address).

dsarmientoperez@turing.ac.uk

2.6. Please confirm the full name of the researcher of relevant seniority (i.e. the principal investigator/research lead) on this project (if not you).

Bastian Greshake Tzovaras

2.7. Please confirm the contact email address of the researcher of relevant seniority (i.e. the principal investigator/research lead) on this project (if not you).

bgreshaketzovaras@turing.ac.uk

2.8. Date of completing this TReX Form 2.

15/12/2023

2.9(a) Expected start date of the project. NB: Projects should not begin without ethical approval.

January 2024, once ethical approval is obtained.

2.9(b). Expected end date of the project.

No expected or planned end date, the platform (details further below) is expected to be available permanently or as long as necessary.

The project has no fixed end date, and aspires to be ongoing. We acknowledge the need to regularly review the need and validity of the project and propose a yearly re-review starting from 12 months since platform launch.

Furthermore, any hypothesis-testing analyses will undergo their own TReX process. Our open-ended data collection does not imply that we will be able to perform data analyses without ethical oversight.

2.10. Please indicate whether the research project is fast-changing.

***Fast-changing research projects** are those where the data and methods used, as well as objectives, are shifting significantly in short timeframes. For such research projects, periodic meetings with the Corporate Governance Research Ethics Manager should be held – this can be every two to four weeks. The purpose of these meetings is to hold the research team accountable for providing updates.*

Not expected to be fast changing, the design and features of the platform may evolve though and require updates to this form or liaising with the *Corporate Governance Research Ethics Manager* if they are significant.

2.11. In 800 words or less, please describe the context and purpose of this research project.

WHAT: AutSPACES – short for *Autism research into Sensory Processing for Accessible Community Environments* – is a **co-created citizen science platform that investigates sensory processing differences experienced by autistic people**. It does so by allowing autistic people to report qualitative data in text form on their sensory processing experiences as well as which things could have made a positive difference in the encountered circumstances. These testimonies of people's personal sensory processing experiences (also called "stories of sensory processing experiences" in participant-facing materials) form the core of the project. With this focus, AutSPACES addresses two key priorities/questions as identified by the [James Lind Alliance priority-setting partnership with Autistica](#): 1. "**How can sensory processing in autism be better understood?**", and 2. "**What environments/supports are most appropriate in terms of achieving the best education/life/social skills outcomes in autistic people?**".

Research GOALS: The goals of AutSPACES are four-fold: (1) Collect data to **improve our understanding of sensory processing** in people's daily lives; (2) Allow people to **share their experiences and coping strategies to support others**; (3) Give non-autistic people a way to **learn about the experiences of autistic people**, allowing them to better understand the challenges and provide better support; and (4) Allow this data to be used by policy makers and creators of spaces and environments, to **improve inclusion for autistic people**.

Values and method: The AutSPACES project is centred on participatory and open-source design philosophies to build an **inclusive community** that includes autistic people, open-source developers, and academic researchers to co-develop an **online citizen science platform** on this topic. A particular focus of the project is on the **equitable co-ownership of all research outputs** and ensuring that they are reusable and useful to **generate real-world impact**.

Geographical scope: This study is focused on the UK and our work will primarily be promoted within the UK. Yet, as the platform will be available online, participants could be located outside the UK.

Specific activity we request approval for: Based on its deliberate co-design, AutSPACES is now well-positioned to enter the public data gathering phase of the project soon. We propose to:

- 1) engage in data collection through the AutSPACES platform,
- 2) collect a large-scale data set of sensory processing experiences,
- 3) analyse the data to provide an improved understanding of sensory processing.

Privacy and consent by design: the platform is designed to maximise privacy and ensure participants have the necessary information to provide informed consent. As described below, the data collected has been minimised to the absolutely necessary for meaningful research, furthermore all data is kept on the [Open Humans](#) platform which guarantees that not even the research team has access to any data that has not been consented for, as well as keeping participants profiles secret.

Informing participants:

- Upon registration in the platform participants have the details and purposes of the research available.
- As the project asks participants to have an account with [Open Humans](#) details of the project are also available in their website and can be consulted before accepting any data sharing.
- Before submitting each testimony participants decide whether or not to share it for research. Consent is managed by testimony, participants can choose for each story for it to be: only visible to themselves, openly visible to other users/visitors of the platform, included in research datasets. Each option can be selected independently.
- The project maintains open GitHub repositories with extended explanations of the project goals, data it collects and data management procedures.
 - [code repository](#)
 - [Project goals and management](#)
 - [File management demo](#)
- The project holds monthly open sessions that can be attended by members of the public.

Minimising data collection and striving for anonymity:

- Only random IDs are available on the platform to recognize users and associate them to their stories. Profiles and login is handled by an external platform, [Open Humans](#), that never serves the profile information to AutSPACES.
 - Open Humans is an online platform run by “Open Humans Foundation”, a non-profit that provides digital infrastructure for ethical data sharing for research. The Open Humans platform allows researchers to create data donation projects, allowing pseudonymous two-way communication between researchers & research participants without requiring the sharing of names, email addresses etc.
 - Open Humans Terms of Use: <https://www.openhumans.org/terms>
 - Open Humans Data Use Policy: <https://www.openhumans.org/data-use>
 - AutSPACES co-PI Bastian Greshake Tzovaras also volunteers for the Open Humans Foundation (OHF) as a board member director of research. As part of this role, he has access to the technical infrastructure of AutSPACES. In line with the Open Humans [bylaws](#) and [standing rules](#), he has reported his involvement as co-PI in AutSPACES to the rest of the OHF board of directors and will not be involved in

any decision making about AutSPACES on the Open Humans side, including not accessing any privileged data that would re-identify AutSPACES study participants.

- Decision making related to AutSPACES will follow the Open Humans community activity guidelines:

<https://www.openhumans.org/community-guidelines/#activity>

- Demographics and profile details only contain strictly necessary information and even then, participants may choose not to disclose any of the asked fields.
 - Answer to "Do you identify as autistic?" with 'yes/no/prefer not to say' options. This field is mandatory.
 - Age group: 18-25, 26-35, 36-45, 46-65, 65+. May be left blank.
 - Gender: non-binary, male, female, self-identify (open text answer), prefer not to say. May be left blank.
 - Open text answer to "What else would you like researchers (or readers) to know about yourself?". May be left blank.
 - Preferred trigger warnings opt-in: used to configure the stories shown to the user. Optional.
 - Receive Open Humans notifications. Optional.
- Participants are instructed not to include identifying information in the testimonies. The text is presented on the AutSPACES platform which is not yet live. You can review the text in our [moderation guidelines](#).
- Testimonies are further moderated to verify they contain no identifying information. These processes are detailed in 3.4 below.
- We additionally store the date and time that a testimony was created and edited, and moderated if applicable.

What the platform does with written testimonies and associated data:

- Sharing the text when first written to the Open Humans platform via API for storage.
 - Contributors cannot opt out of this step if they want their testimony to be saved for them to re-read on the AutSPACES website.
 - No storage happens outside of the Open Humans at this stage.
 - We note here that it is possible to submit a testimony that is neither marked to be made publicly available nor for research. These testimonies and the associated demographic data are only viewable and editable by the person who has contributed them.
- For testimonies that have been consented to be shared publicly, the AutSPACES platform communicates with Open Humans via API to show the text on the AutSPACES website and associate the contributor's demographic information with the testimony.
 - A local copy of the testimonies is stored on the AutSPACES platform.
 - If a testimony is deleted or the preference to share publicly is changed then this local copy is updated. The testimony is deleted from the AutSPACES platform.
 - The demographic data does not have to be publicly shared even if a testimony is consented to be made public. However, a copy of the demographic data is stored on the AutSPACES platform as this improves the speed of the platform and therefore improves user experience.
- For testimonies that have been consented to be used for research, a copy of those testimonies and demographic data can be downloaded manually from the Open Humans platform.
 - Data that has been consented for research purposes but not consented to be made publicly available is never copied to the AutSPACES platform.
 - Only project team members who are employed at the Alan Turing Institute have access to download the data which will be stored in Turing sharepoint.
 - Analysis of the data will happen only on Turing laptops.

- As described above, contributors can opt-out of answering the demographic questions on age and gender. All demographic data associated with testimonies consented for research are considered consented for research too.

Our participant information sheet is available as an appendix to this application in word format. The text has also been incorporated into the AutSPACES website for additional accessibility.

Part 3: Ethics Considerations

The below questions require you to reflect on how your research project meets the standards set out in the TReX Framework, which follow the FAST Principles of Fairness, Accountability, Sustainability, and Transparency.

Principle 1: FAIRNESS

Part A: Data Fairness and Design Fairness

- 3.1. Please describe your research project's methodology and the data it will rely on. Please explain your considerations for the use of properly representative, relevant, accurate and generalisable datasets.

AutSPACES will use a citizen science methodology to collect **qualitative data on sensory processing** for the purposes of understanding how autistic people's experiences of sensory processing affects the ways in which they navigate different environments.

There are several types of data that AutSPACES will process or collect:

- **User accounts:** Users of AutSPACES will need to create an account to submit experiences. They will be redirected to Open Humans to do so, there they will provide a username and email but these will be kept anonymous and will be held by Open Humans. The Open Humans backend infrastructure is used by AutSPACES as they offer a means of holding this data but keeping it completely anonymous, even to researchers. While co-PI Bastian Greshake Tzovaras serves as a volunteer for the Open Humans Foundation, he will not use that role to access any data that could re-identify the AutSPACES participants, in line with both Turing & Open Humans policies (linked above in 2.11).
- **Demographics:** Users will also be asked to provide self-reported demographic information regarding **autism status, gender identity, and age group**. There is also a free text box where they can add in additional demographic data such as their **socioeconomic status, educational attainment, ethnicity, employment status, and/or details about their diagnosis**, all of which have been identified by our autistic collaborators as being important context for how they manage sensory processing challenges.
 - The demographic data will be captured in order to inform and uphold the project's diversity values, provide insights into the needs of an autistic community, give additional understanding of how different autistic people are affected by sensory processing, and to ensure that autistic people are well represented in research.
 - **Sharing this information will be optional** by being able to leave answers blank. The exception being their connection to autism, which they may choose not to disclose

but will still need to record that as their answer. This is vital information to collect if we are to achieve our goals of better understanding sensory processing and autism.

- This data will be collected across the life course of the project.
- Ultimately the main goal of the platform is to collect **qualitative reports** from autistic people, and supporters of autistic people, **about their experiences of sensory processing** differences and the effect it has on their lives. Users will then have a choice whether to make their data public on the AutSPACES website, share it with researchers, both, or neither, in which case it will be stored privately for them to look at.
- The reports – which we refer to as testimonies for user experience purposes – will be stored securely by Open Humans. All stories which are to be made publicly available will first be reviewed by a moderator who will remove any identifying information or content which contravenes the code of conduct (see 3.4 for more details.)
- The testimonies will be anonymous and not publicly linked to the individual user.

Together, the qualitative reports and demographics are the minimal, yet sufficient, data to build generalisable datasets on autistic experiences of sensory processing. The demographics are sufficient to properly characterise and segment experiences.

These methods and decisions on which data to collect were co-created with the project community. In particular, we discussed whether to include a demographic item on the medical diagnosis of autism. In these discussions (see 3.18 for further details on stakeholder engagement), it emerged that a majority of the community would be concerned about introducing medical diagnosis as an explicit question (see this GitHub issue for a summary of the decision processes <https://github.com/alan-turing-institute/AutSPACES/issues/453>) due to existing bias as well as the possibility of introducing unwanted dynamics or classes among platform participants (see 3.4 for further explanations on bias in autism diagnosis). Nonetheless the existence of a medical diagnosis can be of interest for future research, and there are also those who consider it an important aspect of their self-description; to address this while respecting the community decisions participants will be encouraged to add details about their diagnosis in the free text box. Similarly, this free text box will allow us to collect and refine demographic data while limiting the mandatory data collection in line with the preferences voiced our community discussions.

At this stage we are focused on applying for ethics approval to collect the data described above. We do not plan to engage in detailed analyses of the collected data beyond generating descriptive summary statistics to allow us improve the platform and advertise/present the progress of the project. We outline some of the types of analyses that we would consider to be within the scope of this ethical approval as well as examples of analyses that we would **not** undertake without further, additional ethics review.

Types of analyses that we would undertake as part of the work under consideration in this TREx form include:

- Thematic analyses of the testimonies to cluster common topics mentioned, with the goal of disseminating this in outreach materials & platform improvements
- Thematic analysis of the recommendations within each testimony to cluster suggested actions that autistic and non-autistic people can take to make environments more accessible and inclusive.
- Summarising the demographics of the contributors to AutSPACES.
- Reporting on usage statistics over time, including the number of testimonials written, how many are accessible publicly, how many are consented for research, and the number of testimonials that moderators rejected as part of the review process.

Some examples of the types of analyses that we would **not** undertake include:

- Testing specific hypotheses, for example looking to see if women are more likely to experience auditory sensory processing sensitivities compared to men.
- Training a large language model or other AI/ML models on the dataset to better match autistic language characteristics for the purpose of linking testimonials as recommendations of similar stories on the platform.

These questions are all relevant and might be at the base of future studies, but we would seek amendments or undergo a separate TReX application for such future analyses. The types of analyses we consider to be within scope of this ethics application also depend on the level of consent that participants have given for each of their testimonies (whether consented for research or not and whether made public or not), see the table below for an overview.

	Public	Private
Consented for research	<ul style="list-style-type: none"> • Number of experiences & participants • User demographics • Thematic analyses (incl. Direct quotations) 	<ul style="list-style-type: none"> • Number of experiences & participants • User demographics • Thematic analyses (exlcuding use of direct quotations)
Not consented for research	<ul style="list-style-type: none"> • Number of experiences & participants 	<ul style="list-style-type: none"> • Number of experiences & participants

Please also see our answer to 3.17 for our consideration of including a diverse and representative community of autistic contributors and co-creators.

An important aspect of this project methodology is the use of Open Humans, an external platform, for managing user accounts and storing data. This is motivated by our commitment to participant consent, reproducibility, and trust.

Open Humans does not only act as a service provider to reduce project burden, but also acts as an existing and trusted platform that focuses on maximizing participant's control over their data. It allows each participant to take part in multiple projects with a single profile and point of contact regarding their data. AutSPACeS wants to support and encourage this approach and avoid forcing participants to keep track of different profiles and datasets. From a technical perspective, Open Humans provides a proven and functioning method for granular and dynamic consent, which the Turing would have to otherwise develop, test and maintain. As Open Humans provides an actively maintained open source code with an existing contributor base, this also means that this feature is maintained and improved beyond what would be feasible to do in-house. This also contributes to software sustainability and reproducibility.

3.2. Please describe the recency of your dataset. If you are using historical data, how will you ensure that outdated data does not introduce biases/inaccuracies or otherwise adversely affect the research project outputs?

We are not using any historical data, we are collecting new data. We are collecting demographic information, including the date that a testimony was written, to allow us to study the characteristics of the people using the platform. We will track this information over time and report changes as part of our research analyses.

3.3. Please explain how your team will keep records of data provenance and information about data procurement, pre-processing, lineage, storage and security across your project delivery workflow.

All data is directly collected through the AutSPACEs platform and stored on Open Humans. It is collected first-hand and prospectively. There are no data transformations applied before the analysis.

We will not use any third party or previously collected data.

The provenance of the data collected can be linked to specific users through their anonymous Open Humans identifier. Members of the AutSPACEs research team do not have access to their name or contact information. How and which data is collected has been openly developed and decided along autistic community members and this process can be scrutinised, along with the code, by anyone at <https://github.com/alan-turing-institute/AutSPACEs>.

In terms of security the platform does not store any data, using an API to retrieve the necessary information at the point of use. All storage happens in Open Humans which encrypts data in transit and rest to secure it against external threats. Yet, a direct, sufficiently resourced planned attack on Open Humans could potentially result in attackers gaining access to data. We deem such an attack very unlikely, as the data that AutSPACEs requests to be stored holds very little useful information for any kind of economic incentive for such an attack. In addition, AutSPACEs users are solely identified by random identifiers and any attacker would need to further process the dataset to establish the correlation between Open Human accounts and this identifier. Both AutSPACEs and Open Humans are open source projects, allowing for better identification of any potential security issues and vulnerabilities.

It would be however technically possible for Open Humans employees to decrypt using administrator keys and after matching user profile datasets with the AutSPACEs project dataset. To ensure good practice by employees Open Humans has [clear policies](#) on the use of data is bound by laws where it operates, including GDPR in Europe, as stated in their [Record of Personal Data Processing Activities](#).

The research category datasets will be periodically, and as required for future projects, downloaded from Open Humans. This will be done by Turing People and the Institute's security measures and policies will apply then.

3.4. Does your team have processes in place to review automated or outsourced classifications of data? Please note that the way data is labelled, annotated, organised and classified can introduce bias, if due consideration is not given to sensitive social contexts.

No outsourced classifications take place.

Data about personal experiences of sensory processing differences gathered by AutSPACES will be classified in the following ways:

- Data will be labelled according to whether it is submitted by an autistic user or by a non-autistic user. This will be according to the user's self-description during the registration process. Each testimony will be labelled with this information upon submission of the testimony to the platform.
 - This information is vital for the research topic of sensory processing and autism. Consideration has been given to the nuances around autism status. In particular, many autistic people are undiagnosed. Proportionally, autistic people from ethnic minority groups and autistic women at a higher rate of not being diagnosed, and not accessing assessments, than white autistic men in the UK. For this reason, we have opted on balance to use self-identification of autism instead of formal diagnosis to classify user profiles. We have ongoing plans for further user testing and consultation, and will have feedback mechanisms in place after the launch of the platform, which will allow us to adapt the information we collect to classify data as the platform continues to be used. We may also adapt it on the basis of researcher input if particular categories may prove useful. If we make changes to our data collection workflow we will submit a revision of this application to the TREx team.
- Data will be labelled according to whether it is a description of the user's own experience or an observation/inference about another's experience. This will be according to the user's own reporting upon submission of each testimony. The reason for classification being used is that it was prioritised during extensive discussion with autistic AutSPACES community members, many of whom felt that researchers should treat direct and indirect accounts of experiences differently.
- Data will be labelled according to the preferences of the user about how they would like it to be shared. While all data will be held in a single database (on Open Humans), it will be categorised into data which is consented for research purposes and data which is to be published publicly on the AutSPACES website. Some will fall into both categories, or neither. This is so that the preferences and agency of the users about their data is protected. We also give users the option to change their sharing preferences for each story, allowing for a fine-grained, dynamic consent model to be put into practice.
- All data which users have opted to make public will be checked by a human moderator. The moderator will assign a rating based on the traffic lights system of moderation review – a classification system co-created by autistic collaborators and extensively reviewed by community. Whether or not the data is published, and if it is published how it is presented, will differ according to the moderator's classification.
 - Data classified as "Red" will not be published as it contravenes AutSPACES' [code of conduct](#). "Green" classified data will be published and fully visible. "Amber" classified data will not be automatically displayed but will have a trigger warning and may not appear in searches if the user opts out of seeing that kind of content.
 - Users and moderators will have the option to manually assign or write "tags" for data that is uploaded to AutSPACES and which may be made public. These tags are based on a list of potentially triggering content which was co-created with autistic community members in a process which was led by autistic volunteers. Any data with a tag that is deemed by the moderators to be potentially triggering will be classified as "Amber". The list of tags can be adapted if multiple users express concern for a topic which is not yet listed, or if multiple submitters write tags which are not currently in the list for moderators to pick up on.
 - The current list of triggering topics that a website viewer can use to filter out content relate to:

- Abuse (physical, sexual, emotional and verbal)
- Violence and Assault
- Drug and/or Alcohol use
- Mental Health Issues
- Negative body image
- Swear words and disability slurs will be rated Amber.
- All racial slurs will automatically be considered Red whether they are direct or indirect comments.

3.5. What metadata, contextual information, and other documentation will you attach to the datasets and/or code for potential bias mitigation (and possible reuse) in the future?

The code is published and is being openly developed online on the AutSPACES' dedicated GitHub repository (<https://github.com/alan-turing-institute/AutSPACES>). The platform will link to the repository and researchers and participants will have access to it. The repository includes information about the AutSPACES platform code and the research itself, including resources and workflows. It also includes information about how the participatory co-creation was run, and the data from focus groups, co-working and community workshops which was used to prioritise platform features.

All code and process documentation is openly published and released under an open license. The documentation has been written to be understandable to people unfamiliar with the project, and to allow anyone to deploy the platform themselves if they wish. The AutSPACES website itself includes descriptions of the project, its funders and collaborators, its aims and methods, information about how data is processed, and mechanisms to contact researchers. It also directs people to further, more detailed information available via the GitHub repository.

As no dataset has yet been created we have not explored with our project community how they would like the data to be re-used beyond analyses conducted by the Turing research team. Once the platform goes live and data is collected we will prepare and release metadata and demographic summaries, and engage with our community to co-create data re-use policies. Once these have been developed we will submit an amendment to this TReX ethics application form.

3.6. If your research project involves algorithmic output, please explain how your team will ensure that the analytical structures (correlation, interactions, inferences) are procedurally fair.

The research project does not involve algorithmic output.

In the future, we hope that other researchers will use the data for additional analysis purposes. However, these process have not yet been defined and therefore are not covered by this ethics application. We expect that in the future quantitative analyses by the Turing team and/or external researcher will require additional ethics approval.

3.7. Describe any processes the research team will use to ensure that diverse voices within the research team are heard and engaged with at the design stage.

Our research is participatory from the ground up, and we have actively engaged and recruited diverse members of the affected community as citizen researchers and collaborators. Therefore the following answer is true for both community engagement and team dynamics, this projects blurs the lines between researchers and research participants.

This is a community of people on the autism spectrum, their relatives, carers, and allies. Their work is core to the project across multiple dimensions: scoping the project; determining the research question; setting direction; inputting concerns and desired outputs; designing study methods and protocols; co-authoring papers, co-presenting findings on an ongoing basis; leading on areas such as moderation and risk assessment; attending stakeholder meetings, and strategising. As such, community involvement has been critical to the research direction, content, and progress AutSPACES. We would see informed consent as a minimum bar, and community-led decision making as an ideal aspiration.

We remain committed to research for and by autistic people, and have been meticulous in ensuring diverse autistic people, from a range of ages, ethnicities, socio-economic backgrounds, sexual orientations, and neurologies (including those with complex needs and co-occurring conditions) are involved in a way which gives them genuine power. Our ongoing platform development is also rigorously based on recommendations from the community so that it represents them. A major goal of the project is to innovate new ways of conducting research so that it is open and participatory. This means that there is a constant process of designing, learning, and refining ways of working and engaging with affected stakeholders, not just as research subjects but as fellow researchers.

We provide a variety of routes to involvement in the project, including those suitable for people with learning challenges, dyslexia, dyspraxia, and social anxiety. In some cases, this requires researchers to tailor their method of interaction to support those with different accessibility needs to take part, for example communicating via voice message or providing one-to-one support to create an account on GitHub.

Our research team includes members from diverse groups such as those with autism and co-occurring conditions, and the team is supported to take these additional steps to increase diversity and onboard new citizen and professional researchers. Ultimately, we see this as a process requiring constant vigilance and effort, but one which is vital, and which presents the opportunity for a virtuous circle of involvement.

Part B: Outcome Fairness

3.8. How does your team define “fairness” of the research project’s outcomes and impacts? How will you measure fairness?

The research team define “fairness” in the context of participatory co-creation for AutSPACES in the following terms:

1. **Equity of inclusion:** this means making the research process and the AutSPACES platform accessible and welcoming to diverse participants, and that we support diverse participants to access opportunities such as authoring papers, presenting work, and making decisions about the project fairly. This will be measured by the diversity of the AutSPACES community. To be precise, we will meet this goal if we have autistic participants from across the autistic constellation, and from a range of backgrounds and identities, including a range of gender identifications, ethnicities, ages, socio-economic backgrounds, neurodiversities, co-occurring conditions, and sexual orientations. Since the project at this stage is relatively small, we will be able to assess this metric by gathering informal, conversational feedback from individuals to make sure they feel included. We capture feedback in our monthly community call meeting notes and this can include self-disclosure of relevant demographic information of the people who are co-creating the platform with us. We will review this information and compare it to the demographics of the testimonies to see whether our team are representative of the broader AutSPACES community. We will also iteratively seek to expand the community and understand which people we may be in danger of missing. This is a topic

for our focus groups and meet-up sessions, and it is an ongoing process which we expect to iterate to increase diverse participation and inclusion throughout the research cycle. In future phases once the platform is collecting data from the public, we will specifically ask for information about the categories above, so that we can assess this aspect. We will submit an amendment to this TREx application if we change our data collection processes.

2. **Fair recognition:** acknowledging contributors for their input (if they wish). We have established a [GitHub key](#) to mark contributions of individuals who take part in the project. We will measure this by consulting with the community to see if people feel they are fairly acknowledged for their work.
3. **Genuine empowerment** of autistic individuals in the community: we consider this an aspect of fairness as autistic people have the most to gain or lose from the research, and as such it is fair that they have power of the research and its impacts. We will measure this by having onboarded autistic individuals into empowered positions, where they are able to lead on key aspects of the research, and by collecting feedback of how empowered participants feel in the project. We will also measure this by tracing back elements of platform design, moderation, and management to direct recommendations, feedback and ideas from the AutSPACES community, to show what has been led by autistic people.
4. **Fairness of outcome:** we want research to reflect the needs and priorities of autistic people since they are the relevant community, and to individuals across the autistic constellation. We will evaluate the ultimate impacts of the research and whether it is fair on the basis of the priorities developed in the co-creation process, and how well the impacts of the work fit with these priorities. This dimension of fairness also depends on the diversity of the AutSPACES community, and so both criteria of a diverse community, and meeting the priorities of that community, must be met to fulfil this aspect of fairness.

- 3.9. Has your team considered putting together a fairness position statement that makes explicit the fairness criteria you are using, in plain and non-technical language? If so, will your team share the fairness position statement with affected stakeholders?

The project values are published openly on the AutSPACES GitHub repository. The platform will also include a statement about the project values which will be available for everyone who uses the platform. The below position statement will be reviewed and adapted with the support of autistic collaborators and input from the AutSPACES community.

Fairness is part of the core values which we laid out for AutSPACES at the beginning of the project:

- **Impact:** We will strive towards increasing knowledge and providing solutions which will help to create longer, healthier, and happier lives for autistic people and their families. The project's outputs will be in the service of autistic people, both immediately and in the long term. We will ensure that our solutions are sustainable, appropriately resourced, and underpinned by outstanding science. By 'outstanding science', we mean science which is rigorous, unbiased, innovative, and highly-informed. We will pursue opportunities and innovations which will allow us to maximise impact.
- **Participatory Science:** Involvement from the autistic community will be integral to the conception and evolution of the project as well as the iterative design of the platform we create. By autistic community we mean people on the autism spectrum, as well as their relatives, carers, and allies. We will involve members of the autistic community as co-collaborators and strive to diminish distance between researcher and researched. We will partner with members of the autistic community in designing the content, form, direction, and methodologies of the project throughout. We will continuously collect feedback on the project and implement changes to our policies to ensure we follow the standards of best practice as they adapt and evolve.

- **Transparency:** We will be transparent about the aims of the project, its priorities, and its ongoing progress. We will be upfront with all participants about our intentions for the project when they are first involved and will also keep participants continually updated as the project progresses, as long as they agree to be contacted again for this purpose. We will also publicly publish updates and results on an ongoing basis.
- **Protection and Consent:** We will rigorously uphold high standards of data protection. We will ensure that consent is always actively sought and well-informed when we are requesting input from participants, and that we remind them of their right to withdraw from future participation at any point. We will develop, create, and maintain fine-grained consent models which will allow participants to have control over how their data is used and how it is shared. Unless the participant has provided explicit permission, all sensitive information and identities will be kept secure.
- **Open Source:** All source code that we generate during the project will be made available under a free and open source license. This means that it will be available to be used, changed, or shared by anyone free of charge. We will also allow anyone who subscribes to our values and follows our code of conduct to contribute to the project. We will do this by developing the platform through an open GitHub repository (an online site for co-development). We believe that open source working will encourage more rapid innovation, collaboration, and community support.
- **Diversity and Inclusion:** We are dedicated to diversity and inclusion. We will endeavour both to remove barriers to inclusion wherever we encounter them, whether they be direct or indirect, and to proactively support the inclusion of diverse groups. This includes creating and maintaining an environment which is supportive of difference. We will neither discriminate nor tolerate any discrimination on the basis of race, gender identification, neurodiversity, or sexual orientation. We are committed to equity for all.
- **Respectful Conduct:** We will treat each other with mutual respect and acceptance. We will strive to be empathic towards one another and we will constantly seek to learn from and understand others in a reflective and adaptive process. We will not undermine, belittle, or discount experience. We will not tolerate any forms of bullying or harassment. We will ensure people have the means to raise any problems or concerns they may have and will make sure they are not either directly or indirectly prevented from reporting bullying or harassment. Any member of the community – including citizen scientists, developers, researchers, and members of Autistica or the Alan Turing Institute – will be asked to end their participation in the project if they persist in bullying or harassing behaviour. We will conduct ourselves with care for others and professionalism.

3.10. Has your team considered putting together a bias self-assessment and risk management document that will record the risks of bias across the research project lifecycle, and record any assurance actions implemented to address/mitigate these biases?

The project and the team are in a constant re-evaluation of its methods, actions and ways of engagement. As mentioned above what data is collected and how has been co-developed alongside autistic individuals, and supporters of autistic people, to ensure it correctly and accurately represents them.

This has been done, and will be done, openly. Which means that project decisions and methods are available on GitHub but also that meetings and community sessions are open to all to challenge any aspects of the project.

As the data is not processed further, nor used in any kind of analysis at this stage we do not consider further bias reduction necessary. Beyond continuing to operate in the aforementioned open and inclusive manner, respecting the project values at all times.

The project has however, developed a risk assessment document, this document is not solely centred on bias but on other risk that participants may face through their participation. The risk register contains mitigation measures and will be updated for next phases of the project, as it currently focuses on the activities carried out for platform development.

We have a risk assessment document available in word: AutSPACERiskAssessment.docx, and publicly available on GitHub: [Safeguarding.md](#).

Part C: Implementation Fairness

3.11. How does your team plan on communicating the findings of your research project, and how will you acknowledge the limitations of your methods and findings?

If you are building a model (or other product) that will be deployed by operators, please describe how on-the-ground users will be trained to implement it.

AutSPACERs strives for bi-directional communication. Outputs, findings and limitations are open topics for discussion as well as updates. Where there are limitations or trade-offs, participants have a direct say in how those are resolved. Research outputs, findings and limitations will be communicated in the following ways:

1. Via journal articles which have been co-written with autistic collaborators.
2. Via updates on the AutSPACERs website itself which will be written for lay people to understand.
3. Via public presentations and workshops, for which we will include autistic co-presenters in most cases. These will be a mixture of presentations for conferences and public presentations which have a layperson audience, e.g. webinars.
4. Via community meet-up sessions which will be open to all. These sessions are currently monthly and will continue for as long as there is funding and capacity for researchers to facilitate them.

We will likely use quotes from testimonies as part of these project communications. We will either choose testimonies that are consented for both research and being made publicly available or contact the contributors if the testimony is only consented for research purposes to get their permission to quote part of their testimony. The contributor will have an opportunity to redact content from the quote as part of this consent process.

We will never analyse data that has not been made available for research purposes, even if it is available publicly on the AutSPACERs platform.

Principle 2: ACCOUNTABILITY

3.12. In terms of answerability, how will your team ensure that roles and responsibilities continue to be clearly assigned throughout the project lifecycle?

Team members and their actions are clearly visible and traceable on the project GitHub repository and documentation. Public presentations and community meet-ups also allow everyone to know the team and their roles first-hand.

The project is co-led by Dr Kirstie Whitaker (Programme Director for Tools, Practices and Systems) and Dr Bastian Greshake Tzovaras (TPS Senior Researcher for Participatory Citizen Science). The

project is mostly conducted asynchronously through GitHub with more informal conversations on slack. Bastian meets with team members as needed, usually around once per week. Formal decisions are considered by Kirstie and Bastian together through consensus and as needed. Kirstie and Bastian meet at least once per month to review project progress. David Sarmiento Perez supports the project as Research Project Manager and maintains documentation through Turing's standard programme management processes.

3.13. Has your team established a process-based governance framework that provides an overview of the governance procedures for your project, the relevant team members and roles involved in each action, lists explicit timeframes for any follow-up actions and assessments, and includes protocols for logging activities? How will your team make this framework accessible for audit and review?

The project is conducted openly on GitHub. There is extensive project documentation and resources openly available and the use of GitHub makes it possible and easy to track all actions by all relevant team members. Documents include updated project roadmap, goals, activities, moderation, ways to get involved and in summary allows to trace all decisions and actions. Actions are documented as issues on GitHub with changes to the project logged and reviewed through pull requests.

3.14. Activity logs are important for future replication/reproduction by other researchers. Please explain whether and how your team will make process logs (and other records of the innovation processes) accessible for replication.

The whole project is carried out openly in GitHub, both its [code development](#) and [project management](#), which by default creates traces and logs of all activities.

Principle 3: SUSTAINABILITY

Part A: Social Sustainability

3.15. Please list the relevant stakeholders (individuals or groups) for your research project.

First and foremost, autistic individuals, as well as their supporters, carers, families and friends. They are stakeholders both for the platform itself, as direct users, and the resulting research that is eventually carried out by researchers using the produced datasets.

Then researchers of autism wanting to delve into how autistic people process sensory information, as they are the end users of the produced datasets.

Finally, everyone interested in creating better and more inclusive spaces.

3.16. Have you assessed the real-world impact of your research project? How might the individuals and groups you identified above be affected by your research project (in terms of health, safety, privacy, socioeconomic impact, exposure to possible discriminatory harm)?

(Note: This question does not require you to cover data protection aspects relating to individuals, as you should have completed a Data Protection Assessment (DPAP) prior to this stage.)

Real-world impact is a core value to the AutSPACES project. We see that impact being created in the following ways:

1. **An increased understanding of sensory processing differences and autism in relation to its real-world impact on lived experiences:** this is a priority for autistic people according to a 2016 James Lind priority-setting alliance.

2. **Improved public spaces for autistic people:** data collected can be used to adapt spaces and manage spaces differently, so they are more accessible to a wider range of autistic people, and so that autistic people are more able to flourish. For instance, better access to public transport and healthcare, a better ability to focus and feel comfortable and confident in schools and workplaces, and less drain and stress in daily activities which involve travelling to and through public spaces. Autistic people can share strategies and solutions publicly which others may benefit from.
3. **Participatory research:** by pioneering participatory research methods we can create examples and provide resources for other researchers wanting to include autistic people in empowered positions in their research. This is important because feeling left out of research about them is a cause of distress for many autistic people and harms trust in science.
4. **Benefits for participants:** we have had multiple positive testimonials from participants in AutSPACES that it has been personally valuable to be involved for both emotional and practical reasons. We offer a variety of opportunities including upskilling, remuneration, community, connection, and pathways to career development. People who use the website may also benefit from the cathartic process of sharing experiences, being able to have a positive influence, and from having their voices heard.
1. **A tool to support other research:** As it is openly created and released under an open source license, and as we have provided documentation and instructions for building the AutSPACES platform, it can be easily modified or re-used to answer other research questions. For instance, we are exploring a potential use of an adapted version of the platform to investigate the phenomenology of autism. Our processes maintain the highest standards of data protection while making as much content available as possible.

The moderation of user-generated content on online platforms remains a key solution to protecting people online, but also remains a perpetual challenge as the appropriateness of content moderation guidelines depends on the online community that they aim to govern. This challenge affects marginalised groups in particular, as they more frequently experience online abuse but also end up falsely being the target of content-moderation guidelines. In our 2023 publication [“How to co-create content moderation policies: The case of the AutSPACES project”](#) we present the co-creation of content moderation strategies for AutSPACES. We used a community-based and participatory approach to co-design a content moderation solution that would fit the preferences, priorities and needs of its autistic user community. We outline how this approach helped us discover context-specific moderation dilemmas around participant safety and wellbeing and how we addressed those (see 3.4). These trade-offs have resulted in a moderation design that differs from more general social networks in aspects such as how to contribute, when to moderate, and what to moderate.

3.17. Are there any groups of stakeholders that might be particularly vulnerable to potential impacts? If so, how will your team look to mitigate these impacts?

Given their marginalised status we consider autistic people to be particularly vulnerable to the risks of inaction in understanding their experiences of sensory processing in the real world. We acknowledge too that their experiences are likely intersectional with other marginalised and historically oppressed demographic characteristics such as ethnicity, employment status, gender and co-occurring health conditions. We are collecting demographic data to monitor these vulnerabilities and to see which groups of people are not participating in the AutSPACES project.

We have considered the risks to individual contributors to the project. These are evaluated in our risk assessment, [AutSPACESRiskAssessment.docx](#), and discussed further in 3.10.

We have also extensively considered the impact of moderation in our publication [“How to co-create content moderation policies: The case of the AutSPACES project”](#). We considered the impact of both

including triggering content and excluding personal experiences that may be upsetting to others. Our moderation categorisations are summarised in 3.4 above.

3.18. Please describe the level of stakeholder engagement your team will undertake for your project, and the methods you will use.

For example:

- Will you **inform** stakeholders of decisions and developments (via newsletters, community forums) but not ask for external input?
- Will you **consult** stakeholders (via online surveys or short interviews) on certain areas of focus and consider those views in decision-making?
- Will you **partner** with stakeholders (via focus groups) and share agency over decision making?
- Will you **empower** stakeholders (via participatory co-design) and expect them to be proactive in cooperation and decision-making?

This project empowers stakeholder via direct, continuous, and holistic participation in all design and implementation decision. The project does not only make its documentation, code and decisions open for everyone to contribute; it actively strives to engage them.

Co-design and stakeholder empowerment are core values of the project and can be seen across all stages and activities, from formulating the research question to the colour palette of the platform. Some specific examples of this are:

- A user testing exercise was done with autistic individuals to design the platform, all materials and notes from these are available in [this folder](#) within the project repository. The conclusions drawn from it were not only the result of the project team but also directly done by project collaborators.
- Development of the moderation process, which resulted in an openly published paper, and which was directly co-developed with autistic contributors.
- Public presentations and workshops, for which we have and will include autistic co-presenters in most cases. These will be a mixture of presentations for conferences and public presentations which have a layperson audience, e.g. webinars.
- Community meet-up sessions which are open to all. These sessions are currently monthly and will continue for as long as there is funding and capacity for researchers to facilitate them.

Other answers to questions in this form also apply here and showcase the level of commitment to stakeholder empowerment, see in particular 2.11, 3.7, 3.8 and 3.9.

Part B: Environmental Sustainability

3.19. Have you considered the possible environmental impacts your project could have? Please describe possible impacts and the actions will your team take to mitigate potential risks.

The project does not contribute a noticeable environmental impact as the computing requirements of the project are low. It can however enable further research and data analysis that eventually makes use of more computing power, this will need to be assessed when such projects undergo their ethics review processes.

Part C: Technical Sustainability

3.20. How will your team ensure accuracy, reliability, security, and robustness in the research project methods?

The openness and collaborative approach of the project is its main strategy to ensure the technical sustainability. The project is as accurate as possible by inviting contributions from all members of the autistic community in co-creating the platform and sharing their experiences of sensory processing. The project is being developed openly and therefore allows for continuous contributions and updates. The results can be re-examined and updated, with changes to the interpretations communicated on a regular basis. Technical security is achieved by collaboratively making any issues known and working towards fixes.

The research methods, and their actualisation via the platform and its features, are continuously brought back to its community and stakeholders. They are made available for consultation in GitHub and actively discussed in our monthly community meetings. This results in constant participatory re-evaluation.

Part D: Researcher Wellbeing

3.21. Does the research project pose any potential risks to the researchers' wellbeing and safety? If so, what are those risks and how will you mitigate them?

Considerable attention has been paid to the wellbeing and safety of project researchers. Since the project is participatory, autistic citizen researchers and open-source community members and volunteers are involved in, or lead, multiple tasks. This requires having processes and protocols to support their engagement as equal members of the research team. As such, there is considerable overlap in the provisions for ensuring the wellbeing of those conventionally considered 'participants' and 'researchers'.

Risks specific to the autistic population

Autistic people have social, sensory processing, and neurological differences which means that they are likely to have a range of individual responses different to a non-autistic population. This can lead to risks specific to the autistic community. With the caveat that neurotypical bias can paternalistically over-amplify as well as systematically under-acknowledge risks specific to the autistic population, we have identified the following risks:

- 1) socially different interaction styles being falsely characterised or misunderstood by non-autistic people – for instance direct forms of expression or lack of eye contact being interpreted as 'rude'
- 2) sensory overwhelm
- 3) cognitive overload

Further, autistic people may also be affected by prior negative experiences and the stigmas and discriminatory biases of society in a way which could produce risks such as:

- 1) having negative emotions triggered by recounting experiences or encountering resonating experiences of others
- 2) psychological distress from encountering stigma or prejudice, for instance from other community members
- 3) psychological harm caused by agency or self-expression being undermined during the research process

As mentioned above, there has been a history of autism research that has not included the voices or considered the needs of autistic people as it should. To reiterate, we are led by the "nothing about us without us" philosophy of ensuring representation of the affected community at all points in our research process.

Strategies and Solutions

For all research engagements, both online and offline, we have a community code of conduct and enforcement process ([code-of-conduct.md](#)), which we will follow and require all participants of the project to follow. This code of conduct is being adapted on an iterative basis with the community, and moderation strategies are currently being led by two autistic citizen researchers. We believe this level of engagement and direction from autistic community members will help to avoid neurotypical biases being enshrined in the project's methodologies, which could risk the wellbeing of autistic researchers. Instead, we have developed a robust but responsive system of moderation and conduct regulation.

Bastian Greshake Tzovaras acts as the moderator of all online spaces created for AutSPACEs. He will remove or ask contributors to remove any content that infringes our values and/or code of conduct. If necessary, the research team will bar individuals (temporarily or permanently) from further contributing to the project, for instance if they persistently violate the code of conduct.

We will proactively and iteratively design our online working spaces so they are supportive and inclusive of diverse contributors, based on seeking continuous feedback. Georgia Aitkenhead (Turing research assistant) and Bastian Greshake Tzovaras both have expertise in creating inclusive and supportive online communities. They will be jointly responsible for managing the project's online engagement and ensuring that any bullying, discrimination, or other infringements of our values and/or code of conduct is appropriately dealt with. **These processes apply to all community members, including paid staff members of the research team.** Bastian as senior researcher leading the project will ensure that all team members are supported in alignment with Turing's HR processes.

We have a clear reporting pathway to ensure all participants can escalate complaints about their experience within the project. This pathway can be followed by any participant, contributor, or researcher. We also provide all participants with access to the shared code of conduct, a 'calm breakout room' on Zoom, where there is no sound or discussion, in case an attendee becomes overwhelmed, and the opportunity for private communication with a facilitator, at all times. This pathway will also be revisited for the next stages of the project.

We will have multiple facilitators available to ensure all participants' needs are met – such as providing them with a quiet space to decompress, or access to the bathroom. We will make clear from the beginning that they can leave the (breakout room/Zoom call) – and the session itself – at any time without giving a justification.

Principle 4: TRANSPARENCY

PART A: Process Transparency

3.22. If questioned by external parties, how will your team be able to demonstrate that you have considered ethical permissibility, fairness, safety, and public trustworthiness during the project design, development, and implementation processes?

Together, working on the open and stakeholder empowerment (via citizen science methods) we demonstrate all of these aspects as the project happens. The records of the decision-making processes are already available on the [AutSPACEs GitHub repository](#).

As mentioned, this is achieved through the availability of the information coupled with the extensive efforts in presenting that information to stakeholders in an accessible and legible manner through the different project engagement activities, inviting them to be part of all decisions.

Additionally, the platform features are heavily oriented towards individuals' capacity to control their data and manage permissions.

Part B: Outcome Transparency

3.23. Describe how your team will ensure that the outcomes of your research project are interpretable, explainable and understandable to affected parties.

The answer to 3.11 not only ensures outcome fairness but also ensures transparency:

AutSPACES strives for bi-directional communication. Outputs, findings and limitations are open topics for discussion as well as updates. Where there are limitations or trade-offs, participants have a direct say in how those are resolved. Research outputs, findings and limitations will be communicated in the following ways:

1. Via. Journal articles which have been co-written with autistic collaborators
2. Via. Updates on the AutSPACES website itself which will be written for lay people to understand
3. Via. public presentations and workshops, for which we will include autistic co-presenters in most cases. These will be a mixture of presentations for conferences and public presentations which have a layperson audience, e.g. webinars
4. Via. Community meet-up sessions which will be open to all. These sessions are currently monthly and will continue for as long as there is funding and capacity for researchers to facilitate them.

In addition to these active aspects of outcome communications the project repositories contain and will contain all information, striving for them to be accessible and legible. Where possible and necessary plain text versions of documents will be made available in case they are not sufficiently accessible in markdown.

3.24. How does your team plan to engage with stakeholders to present and communicate your project's outcomes/relevant findings?

We have multiple methods for communicating outcomes and findings from our research:

- Sending out updates via. monthly newsletters written by a member of the research team: <https://tinyletter.com/AutisticaTuringCitizenScience> . Anyone may decide to sign up to these newsletters to receive updates. The sign-up link will be available on the AutSPACES website.
- Discussing outcomes and findings in monthly open community meet-up sessions which are open to all and facilitated and designed to support diverse inclusion and autistic voices being heard. These will be advertised via the monthly newsletters.
- Public presentations in various media and pitched to various levels, including conference presentations, webinars, and workshops.
- Academic papers published in open research journals.
- Summaries of research outputs and findings and links to research and further information on the AutSPACES website.

3.25. If your project output will be utilised by system users who will implement your model, will you provide them with a model sheet (that includes information about the system's technical specifications and performance metrics) and an implementation disclaimer?

No model is produced or offered but the system's technical specifications and performance metrics and an implementation disclaimer are publicly available on the project's GitHub repository.

Document Version Control

Title	TREx Form 2			
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Created By				
Date Created	December 2022			
Maintained By	CG Research Ethics Manager (Corporate Governance Team)			
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