# Usability Testing Finding: WeAudit T.A.I.G.A

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Module 4 | Deliverable E: Usability Testing and Findings (Team)

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User-centered Research & Evaluation 02/27/2024 Team-D1

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# **Executive Summary: Usability Testing on TAIGA Platform**

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#### INTRODUCTION

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This executive summary presents the findings from a comprehensive usability testing exercise conducted on the **TAIGA** platform. TAIGA, an educational platform designed to facilitate learning about algorithmic bias through real-life examples, was subjected to a detailed analysis to evaluate its user interface, functionality, content accuracy, and overall user experience. Prior to the usability testing, a heuristic evaluation was conducted to identify potential areas for improvement and to set a baseline for the testing process.

#### **METHODOLOGY**

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The usability testing involved a diverse group of participants, including students, educators, and professionals. The methodology included:

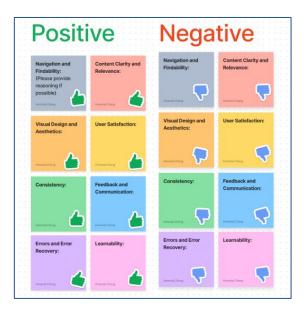
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- A pre-test verbal questionnaire to gather information about the users' baseline knowledge of GenAl & Think-Aloud studies.
- ☐ Task-based scenarios where participants interacted with the platform to understand the platform and report harmful algorithmic behavior.
- A **post-test questionnaire** to assess changes in understanding and gather detailed feedback on various aspects of the platform.
- ☐ Observational studies, notes, affinity mapping and thematic analysis and retrospective analysis based on screen recordings to capture user interactions and identify usability issues.

#### **Evaluation Criteria**

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#### **USABILITY TESTING FINDINGS**

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Top-level findings.

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The users didn't immediately understand the purpose of the platform despite the overload of information in the landing page. Some users tried to click on the cards to redirect them to the tool before registration.

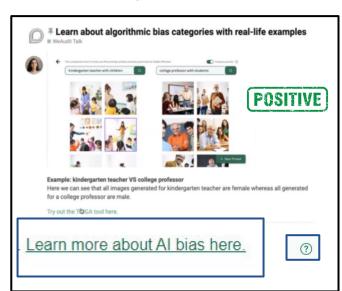
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- Most users found the UI/UX for the prompt views confusing. In particular, they didn't understand what the compare button was for.
- The report form was often populated with placeholder text like NONE to skip the mandatory fields. Users didn't know if the post was going to a public forum and didn't want to post.

### **#1 Learn More Establishes Context!**

The "Learn about algorithmic bias" forum



The "Learn More" page functions like a manual of biases for users unfamiliar with the domain to establish context.

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### Findings

**EVIDENCE**: Two users spent significant time on this page to understand the purpose of the application. One user stated "I would spend more time on this page if I had the time."

Critical

Severe

**Priority** 

Major

Minor

**Positive** 

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- Frequency: Rare to find, but frequent revists. Users frequently interact with this page due to its
  replication in the form of the? icon and the link at the top-left of the landing page. Couple of users are
  likely to visit this page as they will want to understand the system before registering to an unknown
  application.
- Impact: Easy to miss, but positive impact on user understanding. Users found this page useful to learn the technical terminology and the different biases they should look for when analyzing images.
   They liked that they were learning new things and mapping their abstract understanding of harmful Al behavior to specific issues.
- Persistence: Recurring. It is likely that most users will not click this or choose not to spend too much time on this page but those that do encounter it, revisit it to re-learn the different biases they should look for.

#### Recommendations

- SOLUTION: A way to prevent missing this useful feature would be to place it as a callout on the landing page to draw more attention!
- TRADE OFF: While users may still skip it or not enjoy having to read, it establishes the purpose effectively.

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## #2 Select Images & Tagging Biases for Reporting is Informative!

After clicking Submit in the Report form.

Priority

Critical

Severe

Major

Minor

Positive

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This allows the user control via self-selecting certain items.

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#### **Findings**

**EVIDENCE**: Participants are able to quickly understand the intent of the interface and accurately select which images were problematic. The drop-down list of harms and impacted social groups is also helpful to re-analyze the images in detail.

- Frequency: High Frequency. Almost every participant who decide to post about bias interact with this page and the dropdowns.
- Impact: Easy to overcome. Users are less likely to encounter a problem at this page given the clear direction and explanation as shown for selection and tagging.
- o **Persistence**: **One-time boost**. Overtime these features will become routine. They will become familiar with the terms and what to look for with usage.

#### Recommendations

• SOLUTION:

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- 1) Make the tagging part of the report form and not have it come after clicking the Report Submit button.
- 2) For better visual assistant, consider adding note like "number of images selected / Total") and a red outline instead of yellow.

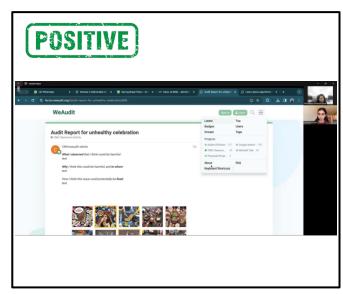
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• **TRADE OFF**: Extra effort from user but useful for developer to address pinpointed problems with the algorithm.

## #3 Forum Page of Topics Is Useful

Forum page Priority Critical Severe Major Minor Positive



The forum page lists a lot of different threads with sorting and filtering functionality.

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#### **Findings**

**EVIDENCE**: One user quotes, "This page gives detailed insights on related problematic behavior. I find it interesting and will likely try more prompts."

- o Frequency: Rare. Only two users visited this page. One by accident.
- Impact: Positive Impact. It is likely that the users might not find this page in the current UI
  easily but it definitely piques their interest and they try new prompts after getting inspired
  from here.
- Persistence: Long-term boost. People are likely to revisit this page once they find it to find trending topics, check their own posts for reactions and see results to other prompts.

#### Recommendations

• SOLUTION:

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- 1) Better placement to find this page by adding a navbar on this UI, with a link to this page.
- **TRADE OFF**: While many users may still not spend too much time on this page regularly, if they find it easily for the first time, they are likely to try interesting prompts and report results to check the functionality by looking for their own post.

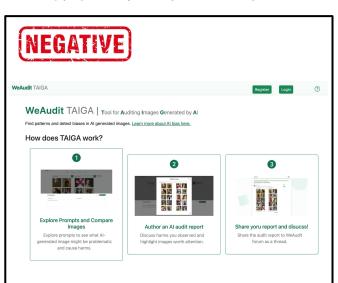
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## **#4 Confusing Landing Page**

Landing page of https://taiga.weaudit.org



A landing page should be built like a landing page, not half of a side feature.

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**Priority** 

Critical

Severe

Major

<sup>r</sup> Minor

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Positive

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#### **Findings**

**EVIDENCE**: Almost all tested users were unsure as to how to move forward from this page, given that nothing on the web page immediately communicates how to proceed and that what little information is present is also unclear. It also fails to establish the context and purpose immediately.

- o **Frequency: Exceedingly common**, since this is almost always the first page users will view when trying to access TAIGA.
- o **Impact**: **Difficult** until the user tries to/is prompted to register or login. Until then, progress is completely halted. Users also expected the image cards to redirect them elsewhere.
- Persistence: One-time. After logging in, this screen will never be seen again until the user decides to log out—users will instead be redirected to the image generation page.

#### Recommendations

- **SOLUTION:** 1. Offer a short description of how the overall process of using TAIGA works, as well as some brief information on how to get started. A large button at the top or bottom of the screen that says "Get Started" would help to go to the learn more page. 2. Gif tour of the workflow on this page instead of cards.
- TRADE OFF:

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Doing so may compromise the composition/consistency of the existing visual setup of the page, which would require time to modify and amend. Overall, not too difficult to accomplish the suggested changes.

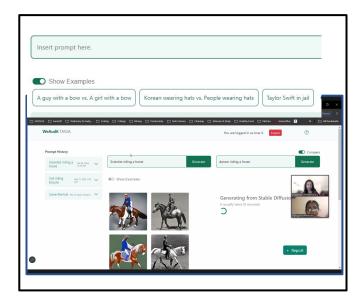
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## **#5 Unintuitive Prompt Views**



Generate Images Page - Single and Compare Prompt Views.





The single and compare views are confusing for most users.

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#### **Findings**

**EVIDENCE**: Almost all the users found the prompt views unintuitive and clumsy. They frequently asked if the algorithm was working when it took too long. They also didn't understand what the compare button was for and why there were two bars now.

- Frequency: Common. The users were often confused with the compare button and its purpose. The single prompt view was easier for users to comprehend but the examples shown were actually for the compare view.
- Impact: Relatively difficult. Since there is no tooltip to explain what the text bars do, users took some time to understand what to do. The placeholder text just tells users to insert their prompt but not to describe images they would like to generate.
- Persistence: One-time. After the first use, users will figure out how to work with the views but it will
  continue to be confusing for new users.

#### Recommendations

- **SOLUTION**: 1. More descriptive placeholder text: "Write a short, single line description of images you want to generate". 2. Change the toggle Compare button to tabs for single and compare prompts. 3. Use only one button to generate images for both prompts simultaneously. 4. Provide tooltips and a guided tour animation on how to use the interface. 5. Change the examples for single prompt.
- TRADE OFF: Almost all the suggested solutions are simple to implement. The guided tour takes significant
  development time but will mitigate the confusion surrounding comparison.

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## #6 Report Form Design is Tedious and Vague

Form that appears after generating images and clicking "Report"

Findings

EVIDENCE:
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**Complexity:** The form seems to require a detailed analysis (observation of harm, reasoning, mitigation) which might be too complex or demanding for a user who just wanted to report a simple issue.

Critical

Priority

Severe

Major

Minor

Positive

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**Lack of Contextual Help:** This form asks open ended questions without providing examples or guidance There is no inline help or tooltips to assist the user in understanding what each section is asking for, which can be misleading for users who are unsure about what to enter.

- o Frequency: Extremely common. The report form is a required step of the task process for every user.
- o Impact: Easy or difficult for the user to overcome? Will the user be able to achieve goals given this issue? Why?
- Persistence: Although the form only technically appears once, it takes up a large part of the experience of using TAIGA, and thus affects the user for a significant period of time.

#### Recommendations

#### • SOLUTION:

Providing tooltips, removing requirements for fields, and adding any other detailed information can help better communicate the usage of this page while also ensuring user comfort.

#### • TRADE OFF:

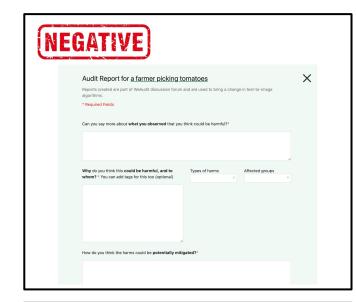
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**Ease of Use vs. Detailed Insights:** A simpler form is easier to use but may not gather the detailed insights that are possible with a more comprehensive form.

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A product built for the public should not require users to provide expert-level commentary.

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# Recommendations

#### Clarity in Communication:

Write in simple, conversational language. Communicate intentions / messages as if explaining it to someone without any previous experience. Avoid technical terms or industry jargon that could confuse the user.

#### Error Prevention:

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When users take a potentially harmful action, prompt them with a confirmation dialogue that clearly explains the consequences and provides a straightforward way to cancel the action.

#### Guided Tours and Tooltips:

Implement guided tours for first-time users and tooltips that offer explanations for various features or fields when hovered over.

#### Reduce Users' Cognitive Overload:

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Limit your questionnaire to a few important questions. Focus on what you most need to learn or what actions you're prepared to take based on the feedback.



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# Recommendations

#### Landing Page:

- Simplify the wording on the cards and make them links.
- If possible, add in a gif of the entire workflow or at least what the ideal workflow is starting at the prompt view page with an example of reporting.
- Make the buttons for the hyperlinks on the page consistent by using a navbar at the top of the page.
- Make the get help and learn more icons explicitly visible by using a large dedicated button or as a separate link on the navbar. It could also be implemented as part of the card sequence.

#### Prompt Page:

- Change the examples for the single prompt view.
- Change the compare toggle to a tab view.

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- Better placeholder text which is more descriptive like "Insert a short, description of the images you want to generate".
- A mechanism to drag & drop previous prompts from the left side stack of prior prompts issued by the user. This could also be a click to populate feature.
- Provide users to control the number of images generated. Sometimes, they keep scrolling to see more.

#### **Report Form:**

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- Integrate the image selection step as part of the form without having to click the Submit button.
- Turn the text field to drop-down, multi-select or option-selection fields to encourage users to fill the report and reduce workload. Also provide the option to post anonymously.
- A simple thumbs up or down button to help users quickly provide feedback if they are unwilling to post publicly.

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# **Broader Observations & Insights**

The importance of **clear communication with the user** on how to best move forward has been shown again and again throughout our usability testing process.

Participants getting stuck while navigating the main page

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- > Participants not understanding how to best fill out the report form
- > Participants not understanding the purpose of the application and unwilling to register

It can be said that when recruiting users from a diverse population (especially people from different backgrounds), designers should not require sophisticated or expert-level input, especially when gathering direct information and feedback.

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# **Broader Observations & Insights**

- Users prefer to remain anonymous while posting publicly about controversial topics
  - Option to remain anonymous while reporting should be incorporated
- Users often don't report harmful behavior encountered

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- Pop-ups for encouragement need to be provided
- Users don't recognize common biases quickly at first glance but in retrospect or when given prompts, immediately catch several issues
  - Re-inforce biases to look for by freezing the results for a bit
- The report feature should be a quick feedback loop otherwise, users just skip them giving feedback
  - Not too many text boxes but interactive elements like drop-downs or tagging elements

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# **Appendix**

- Link to <u>Figma Flowchart Clustering</u>
- Link to <u>the interview note sheets</u>

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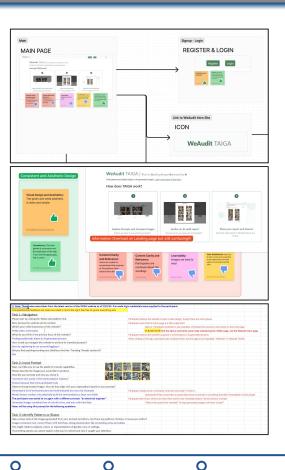
- Link to <u>the Google Drive Workspace</u>
- Link to the Demographic Post Questionnaire

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**Response** 

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Thanks