

Threads of Assumption: Qualitative Data Collection Workshop, AI-Service Design, and Weaving

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Abstract

The recent explosion of open-source artificial intelligence (AI) platforms expands possibilities for service design. However, the AI-reliant systems in the products and technologies we design replicate harmful constructions of race and gender inherent in the datasets used for training (Crawford, 2021). While most AI researchers view datasets as “operational” relative to the “lionized work of building novel models” (Sambasivan, 2021), research artist Hannah Davis advocates for “ideal or experimental worldviews” created by new datasets “with data and labels that model an ideal or healthier society, not just mirror how it is today” (Davis, 2020).

In response, Threads of Assumption, a multi-year interactive art project, collects stories of gender bias to investigate how AI processes them. For our initial dataset, we recorded conversations on a digital platform. But traditional Natural Language Processing (NLP) and sentiment analysis couldn't identify gender bias. In 2022 we developed a workshop for collecting qualitative data, centering storytelling. Our longterm goal is to build a dataset of personal experiences and use AI models to identify patterns of gender bias in specific communities.

This workshop focuses on story collection. Using our expertise as designers, we cultivate a meditative space where hands-on activities—writing and weaving—personalize sensitive topics and make complexity tangible and accessible. As one participant said: “I have whiplash. I remembered traumatic life experiences, then I played with soft, colorful yarn and felt comforted.” Participants leave with best practices for workshop facilitation, tools for integrating physical making into workshop design, and an expanded understanding of how gender bias affects them and their communities.

Keywords: gender bias, artificial intelligence, data visualization, participatory design

Workshop description

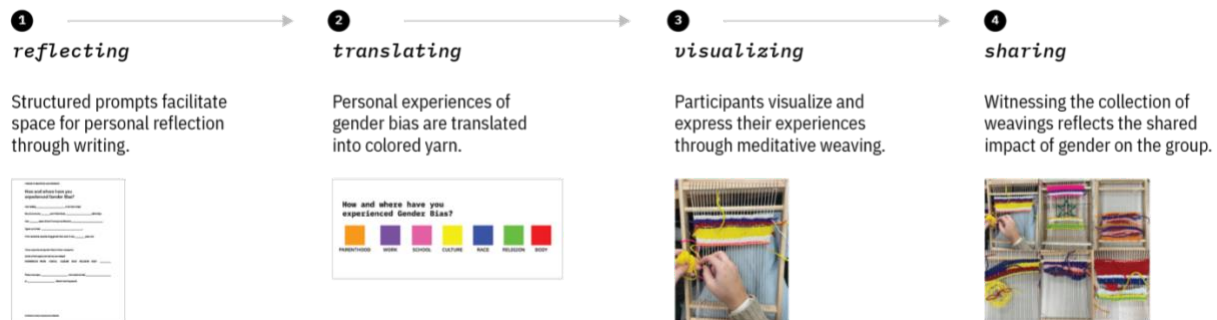


Fig 1. Four activities for creating a safe space: reflecting, translating, visualizing, and sharing.

Our proposal is for a 90-minute workshop that reproduces and shares what we've learned about cultivating a safe space for reflection and storytelling. The workshop is designed around four activities: (1) reflecting, (2) translating, (3) visualizing, and (4) sharing. Sixteen participants will contribute stories using a written worksheet and visualize their experiences through weaving. Post-workshop, the individual weavings will be combined and, if permitted by conference organizers, exhibited during the conference.

Activity 1 Reflecting: The first part of the workshop is an optional worksheet, designed like a children's MadLib to guide participants through a period of quiet. The worksheet prompts participants to think of a specific experience of gender bias and helps them transform their reflections into written stories with fill-in-the-blanks prompts and concrete suggestions of seven categories (parenthood, work, school, etc.). The hands-on act of writing, as opposed to talking, creates a solitary personal space for reflection.

Activity 2 Translating: When finished, participants translate their experiences into colored yarn, where each color represents one of the seven categories (see fig. 2). Participants select whichever colors and quantities of colors best represent their experiences. The selection process begins before they are given a loom or shown how to weave, to help them focus on translating their experiences into physical materials.

Activity 3 Visualizing: Participants are then given a loom and provided the time to create a weaving representing their experiences. Participants are not given rules or specific instruction; instead, we provide examples of non-traditional and abstract weaving, allowing participants to decide how they will fill the loom. This is not a transactional experience: a story is not exchanged for a skill. Instead, providing a tactile experience (soft yarn) after sharing personal and harmful stories fosters an open space where participants are free to engage with one another or continue to meditate on their own lived experiences.

Activity 4 Sharing: The final step is to witness all the weavings. Participants are asked to walk around the room. Though the visualization of stories through color and yarn is an abstraction, it's also a shared manifestation of the group's experiences. Each weaving in the collective tapestry represents one story, an integral part of a larger narrative.

Learning Outcomes: Participants will leave the workshop with the following: (1) best practices for creating a safe space for reflection and personal storytelling in a workshop; (2) examples of integrating physical making, e.g., writing and weaving, into a workshop; and (3) an expanded understanding of how gender bias affects them, their communities, and the services and technologies of the future.

Session set-up

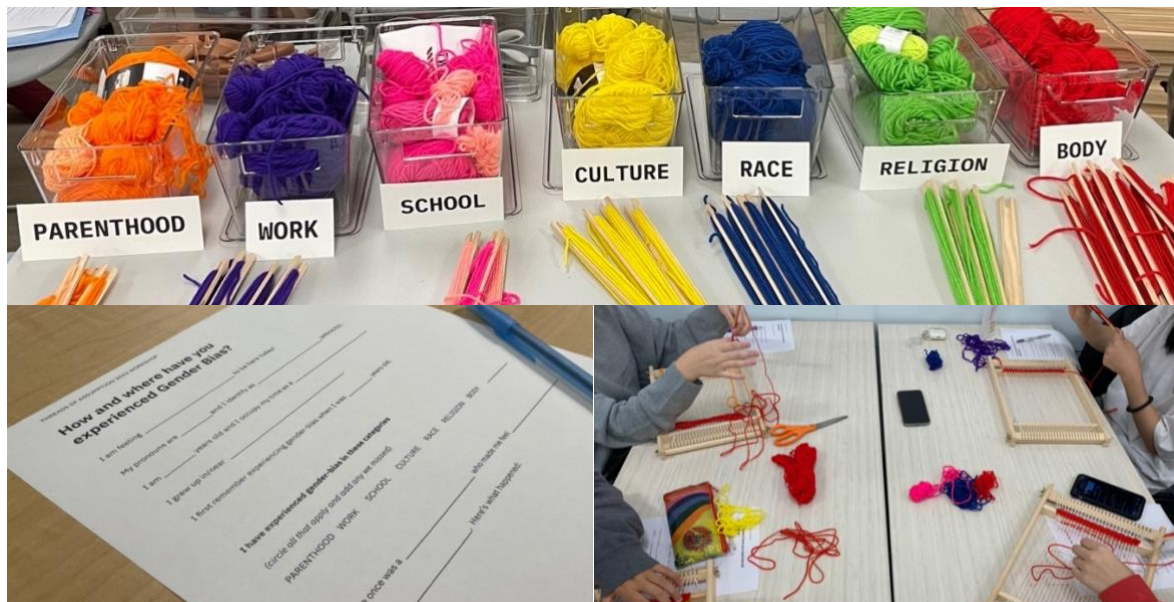


Fig 2 (top). Workshop supply set up. Each color of yarn is mapped to a predetermined category of where gender bias may be witnessed or experienced. Participants select the yarn for their weaving based on these categories.

Fig 3 (left) and Fig 4 (right). Documentation of worksheet and weaving circle.

Materials (provided by facilitators): Presentation slide deck, printed worksheets, pens, pre-wrapped personal tabletop looms, colored yarn, display bins, and signage.

Pre-workshop prep (~30 mins) Facilitators set up supplies (fig 2) and arrange seating.

Story collection (~30 mins) Facilitators introduce worksheet with brief talk. Participants write their stories of gender bias on provided worksheets (fig 3).

Making (~60 mins) Participants weave and can meditate on their experiences (fig 4).

Space Requirements

Classroom with a projector or monitor, 5-6 four-person tables, and 18-20 chairs. Small open wall to display finished weavings for the duration of the conference.

References

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Convenors bio:

Sofie Hodara is Assistant Teaching Professor of Design at Northeastern University. Her multimedia work sits at the intersection of the art and design disciplines and integrates traditional and emerging media in service of social critique. She has exhibited her work and presented at conferences internationally.

Martha Rettig is Associate Professor in Communication Design and co-director of the Dynamic Media Institute at Massachusetts College of Art and Massachusetts College of Art and Design. She is a designer, experimenter, and immersive artist whose work focuses on merging traditional mediums with emerging technologies. She co-founded an interactive agency and helped build digital solutions for over 200 companies.

Estefania Ciliotta Chehade is an international expert on working effectively with cross-cultural teams. Born in Peru, they hold an MFA of Experience Design and have worked in different countries and industries. They have observed and researched innovative practices in team-building for international teams, design for conversations, impacts on service and experience design practices, as well as redesign of healthcare and AI systems.

