



# Insights from the Inside:

## Ethical Co-Design of Technology with and for Nonspeaking Autistic People

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### Background

- Nonspeaking autistic people are rarely included in participatory research.<sup>3</sup>
- Authentic inclusion of nonspeakers requires intentional accommodations and efforts to ensure their perspectives are heard.<sup>1,3</sup>
- Supports designed without nonspeakers' input fall short.<sup>2</sup>
- Our co-design team of nonspeaking autistic adults, support professionals, engineers, and researchers are designing technology to support acquiring typing skills.**

### Objectives

- To develop a statement of shared values ensuring nonspeakers can authentically contribute.
- To share how collaborators improved the project goal.

### Methods

**Team composition:** 6 nonspeaking autistic adults who type, 2 support professionals, 5 engineers and researchers.

Participatory framework: AASPIRE guidelines for participatory research<sup>4,5</sup>, including:

- Materials in advance
- Assigning roles
- Text-based options
- Jargon detector (adapted)
- Asynchronous opportunities
- Compensation to co-designers and support people
- Democratic voting procedures

**Data sources:** Meeting transcripts and notes from 5 virtual meetings (summer 2025), chat logs, and tracked revisions of values and goals statements.

**Analysis:** Inductive coding to identify themes relevant to (a) shared values development and (b) project goal revision.

### Results: Shared Values

From discussions around shared values, we constructed three themes:

**(a) Accommodations; (b) Collaboration; (c) Respect & Openness.**

| Accommodations                                                                                                                                                                                             | Collaboration                                                                                                                                                           | Respect & Openness                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>"To truly have autistic people being equitable partners, think about the amount of time that it takes."</i>                                                                                             | <i>"Designing together with the people the design is for."</i>                                                                                                          | <i>"It is important to have mutual respect and trust."</i>                                                                                                                       |
| –Elizabeth MacNeil, autistic professional team member                                                                                                                                                      | –Isaiah Grewal, nonspeaking autistic team member                                                                                                                        | –Graciela Lotharius, nonspeaking autistic team member                                                                                                                            |
| <ul style="list-style-type: none"><li>Equitable concept of time with no constraints</li><li>Adaptability</li><li>Accessibility: Bite sized tasks, asynchronous contributions</li><li>Flexibility</li></ul> | <ul style="list-style-type: none"><li>Working together</li><li>Listening to everyone</li><li>Presuming competence</li><li>Iterate and revise values as needed</li></ul> | <ul style="list-style-type: none"><li>Mutual respect and trust</li><li>Respect all ideas and allow for open discussion</li><li>Honoring diversity of lived experiences</li></ul> |

Table 1. Themes from Shared Value Discussions, Sample Quotes, and Adopted List of Shared Values.

### Results: Goal Revision

From robust discussions about revising the project goal, we constructed three themes:

**(a) Target User; (b) Autonomy; (c) Addressing Systemic Issues.**

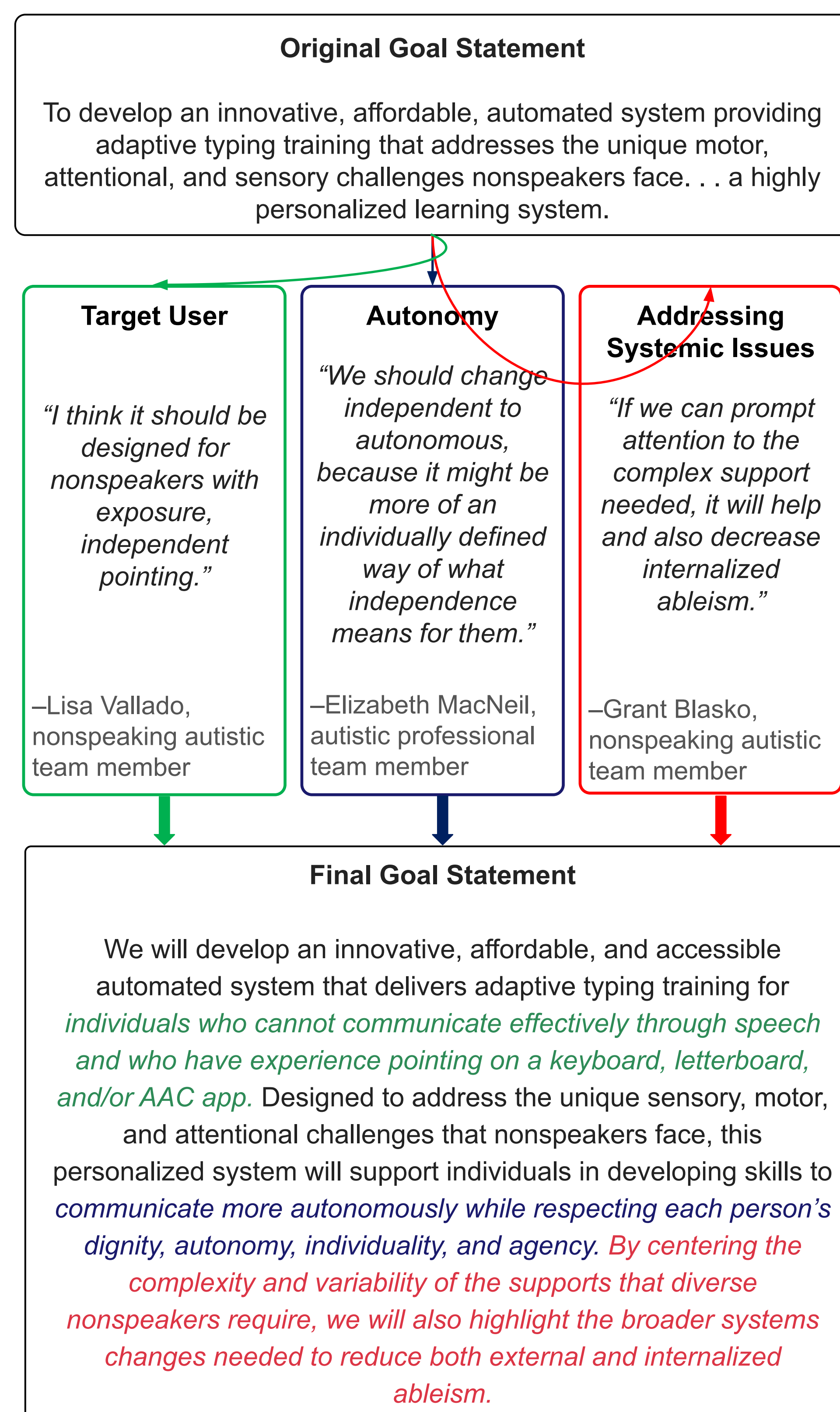


Figure 1. Themes from Project Goal Discussions (and Sample Quotes), Evolution of Original to Final Project Goal.

### Conclusions

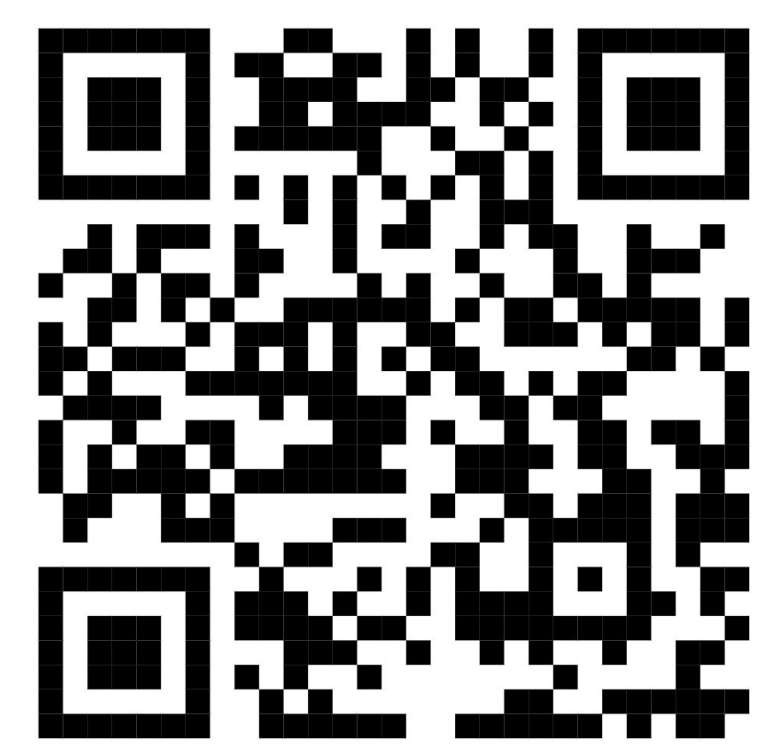
- Developing technology with nonspeaking autistic people rather than for them transforms both process and outcome.**
- Articulating and using shared values to guide team decisions resulted in authentic inclusion with more clear goals.
- This participatory foundation establishes a replicable framework for future projects seeking to promote autonomy and agency for nonspeaking autistic people.

*This foundation now guides the next phase of our project: the co-design of the technology itself.*

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### Learn More



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### Our Team

