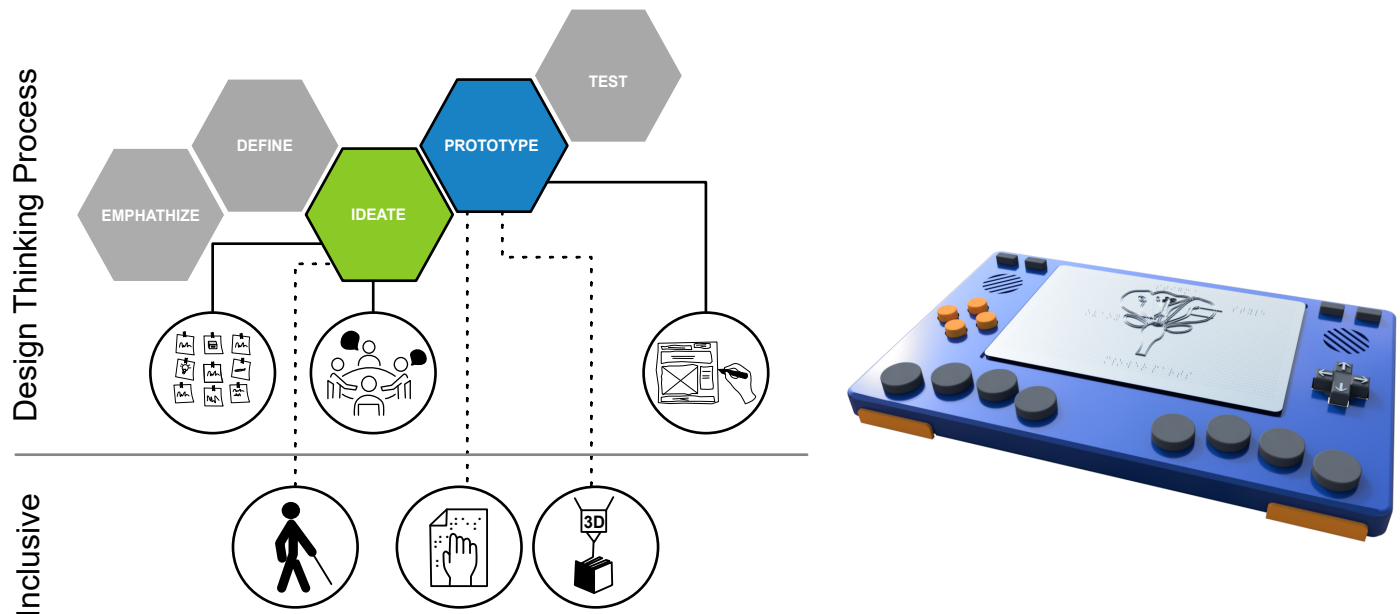## MASTER'S THESIS

Inclusive Design Thinking: Engaging Blind Individuals In Design Research Methods

Background: Design thinking is a problem-solving process that focuses on the human-centered aspect. Throughout the five stages of this process, different design methods are utilized to gather and organize insights and transform them into prototypes. However, many of these methods lack accessibility for blind individuals. As a result, blind individuals are often engaged either in the initial research stages or in the final phases of testing and evaluating designed artifacts.

Notably, the **ideation** and **prototyping** phases, which are pivotal in most design processes, often overlook direct inclusion of blind users. These stages commonly rely on visual methods, such as paper sketches and sticky notes for designing prototypes, which are not accessible for blind individuals.

Objectives: The objective of this work is to analyze the various design methods used during ideation and prototyping phases and explore how these can be adapted to allow the participation of blind individuals.

TASKS:

- Systematic literature review of existing design research methods used for ideation and prototyping and assessing their accessibility.
- Analysing the requirements of an adapted prototyping method the allows for the inclusion of blind users.
- Assessing an inclusive prototyping approach employed in the development of a novel hardware device for the blind users, and using the findings from this evaluation to enhance the method further.

REQUIREMENTS:

Interest in accessibility, usability, and UI/UX design, along with some familiarity with 3D CAD or modeling software.

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