



A Social Acceptability and Assistive Usability Audit of a Novel Wearable Computing Device

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A heuristic evaluation and social acceptability audit of a wearable textile interface that exhibits the potential for general and assistive technology applications.

Context

The rising prevalence of wearable technology for everyday use among the general public has made the wearing, the use, and interaction with such worn devices socially acceptable and familiar. Many assistive technologies (ATs) are also wearables but may not be as well understood by the public, which perpetuates stereotypes about users of specific technologies. Breakthroughs in conductive textiles have allowed for the production of new and alternative form factors and interface designs for wearables, and with a new platform comes the opportunity to design technology and establish interaction methods that are more mindful of users as well as social contexts.

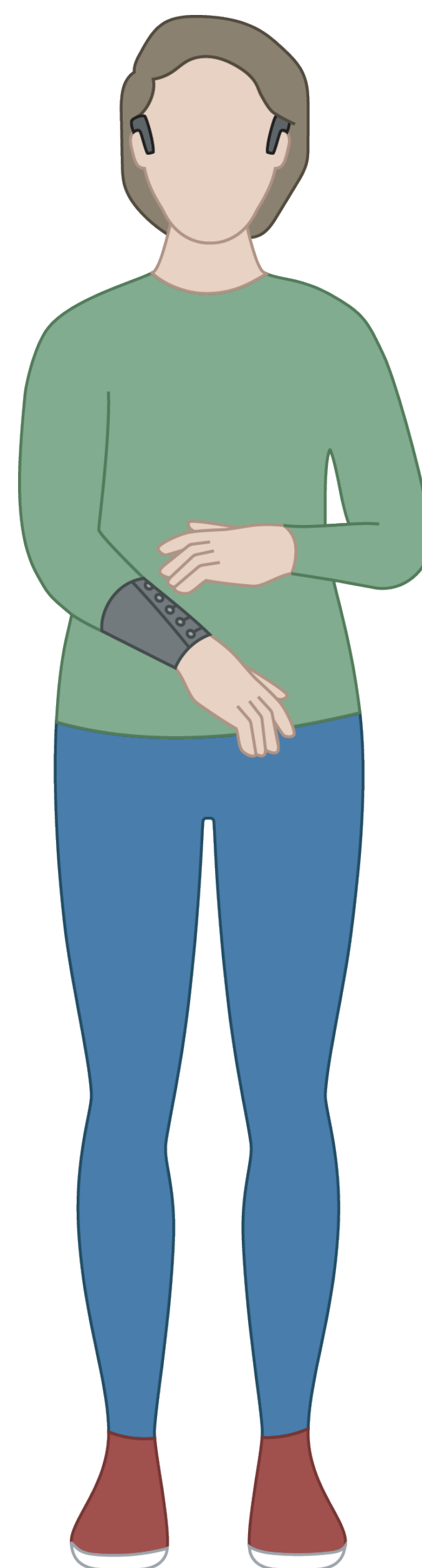


Research Questions

- 1 Is the given device socially acceptable, in a general-use sense as well as an AT context? How do wearers perceive the device in a social context? How do others perceive the device in a social context?
- 2 What improvements can be made on the device interface to enhance its social acceptability and usability, for general and assistive applications?
- 3 Is the device usable for AT users to complete general-use (not-AT) tasks?

User Study Info

- 10 study sessions** consisting of survey materials and 4 social, collaborative tasks performed by pairs of
- 2 confederate users** who wore and interacted with the prototype while collaborating with one of the
- 10 participants** recruited from the general population



Findings and Feedback

Overall Form Factor

- Remove Extraneous / Physically Conflicting Elements
- Improve Reliability & Consistency
- Consolidate the Interface
- Make the Device a Standalone, Modular Peripheral

Sleeve Interface

- Provide Additional Tactile (Gestalt) Cues
- Afford Passive (Exploratory) & Active (Deliberate) Interactions

