



Islamic University of Technology (IUT)

Assignment 0: Exploring HCI Research Areas

Submitted by

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0.1 HCI research project 1

Opportunities in Mental Health Support for Informal Dementia Caregivers Suffering from Verbal Agitation

0.1.1 Academia

Cornell University

0.1.2 Summary Description

The project addresses mental health challenges of informal dementia caregivers, focusing on coping with verbal agitation. It proposes coping strategies and technological aids for stress management and mental well-being. Solutions are categorized into pre, during, and post-agitation events: distraction tools and encouragement systems for preparation, strategies to refine responses during agitation, and post-event conversation-based stress relief and reflective practices to comfort caregivers.

0.1.3 Target Users

Informal caregivers of people with dementia, including family members and friends, who face emotional and mental health challenges due to verbal agitation from those they care for.

0.1.4 Comments and future scope

The research underscores the importance of caregivers' mental health in dementia care, advocating for customized technological solutions. Its future direction could involve broadening the study to include diverse cultural perspectives, enhancing the universality and applicability of its strategies for managing verbal agitation in varied caregiving contexts.

0.1.5 Reference links

The paper can be found on [arXiv](<https://arxiv.org/abs/2311.10912v1>) for detailed information and access to the research findings here [1].

0.2 HCI research project 2

I Got Flagged for Supposed Bullying Even Though It Was in Response to Someone Harassing Me About My Disability : A Study of Blind TikTokers

0.2.1 Academia

Cornell University

0.2.2 Summary Description

This study investigates the experiences of blind TikTok users (BlindTokers) with content moderation. It reveals the challenges BlindTokers face due to the platform's lack of accessibility and understanding of their specific needs. The research highlights issues of marginalization and unfair treatment in social media moderation, particularly in the context of disability.

0.2.3 Target Users

The blind and visually impaired community, especially those using TikTok, as well as social media platforms and researchers focusing on accessibility and fair content moderation.

0.2.4 Comments and future scope

This research sheds light on the need for more inclusive and accessible content moderation policies. It underscores the importance of understanding and accommodating the unique experiences of users with disabilities in social media environments.

0.2.5 Reference links

The full paper is available on [arXiv](<https://arxiv.org/abs/2401.11663v1>) [2].

0.3 HCI research project 3

A1lyBoard: Making Digital Artboards Accessible to Blind and Low-Vision Users by *Zhuohao (Jerry) Zhang and Jacob O. Wobbrock*

0.3.1 Publisher

Association for Computing Machinery

0.3.2 Conference

CHI '23: CHI Conference on Human Factors in Computing Systems

0.3.3 Summary Description

The project presents A1lyBoard, an interactive multimodal system designed to make digital artboards accessible to blind and low-vision (BLV) users. It employs a web-based drawing canvas paired with mobile touch screen devices, enabling spatial exploration via touch, gesture, and audio feedback. The system also incorporates speech recognition and keyboard-based commands to facilitate creating and editing artboard contents.

0.3.4 Target Users

Blind and low-vision individuals who face challenges in accessing and creating digital artboards, such as those used in design and presentation software.

0.3.5 Comments and future scope

A1lyBoard represents a significant advancement in accessibility technology, offering blind and low-vision users an innovative way to engage with digital artboards. Its multimodal approach could be further expanded to other applications, enhancing digital accessibility broadly.

0.3.6 Reference links

The detailed study and findings are available in their publication on the [ACM Digital Library](<https://doi.org/10.1145/3544548.3580655>). [3].

Bibliography

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