

Community Conversation: Trust, Privacy, and Internet-Connected Devices

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Recap: Project Goals

- Focus on trust and privacy with internet-connected device use in the disability community to improve technological development
- Focus on community-connected practices to foster justice and inclusion
- In-depth exploration of topic via three areas: empirical, philosophical, and technical

Data Sources

- Outreach to several groups within the disability community, including APRIL
- Data from surveys (63)
- Data from focus groups (3)
- Data from journal entries (over 200)

Findings: Philosophical Area

In the Theory Stream of the project, researchers

- participated in 20 interviews led by Dr. Blackmon with disability services providers across the United States (Wittkower)
- conducted a lit review of trust discourses in HCI/engineering (Herdegen) and in philosophy (Wittkower)
- developed a posphenomenological typology of human-tech relations in a disability context, isolating paradigmatic lived experiences of trust
- developed a primer for designers/engineers about the context of lived experience of disability as it pertains to conditions and barriers to digital tech adoption, presented at *Computer Ethics—Philosophical Enquiry 2021*, a major international computer ethics conference
- are currently developing a trust framework, which will consist of a series of processes and questions for designers/engineers to work through to support developing tech that will deserve and tend to elicit trust from disabled users.

Findings: Philosophical Area

In our typology of human-tech relations in a disability context, we identified paradigmatic lived experiences of trust:

To identify relevant forms of trust we considered how trust appears in Ihde's (1990) four human-technics relations. We'll present the first two.

1. Embodiment Includes technologies that are particularly prominent to abled people, since they are modding disabling shared architectures: wheelchairs, braces, eyeglasses, canes, hearing aids. Dominant form of trust: *trust as reliability*.

2. Hermeneutic Technologies of reading the world, and being read: e.g. braille, communication boards, closed captioning; and e.g. glucose monitors, pulse oximeters, blood pressure cuffs. Dominant form of trust: *trust as veracity*

This analysis should inform designers of mental models of trust that disabled users are likely to use. To provide guidance on how to design for trust for disabled users, the lived experience of disability must also be considered.

Findings: Philosophical Area

In our primer for designers/engineers, we focused on how solutionist thinking creates these conditions for disabled persons that influence tech adoption:

Solutionism: reducing complex issues to simple problems with straightforward solutions

When we think about trust from within a solutionist paradigm, it leads us to look for a model with inputs and outputs

[IF I PERFORM THESE BEHAVIORS -> I WILL GAIN TRUST]

However, treating people as problems with simple solutions is unlikely to create a relationship in which real trust is possible.

This may be particularly true for disabled people:

- History of solutionist approaches to disability
 - Eugenics, ugly laws, medical model vs. social model
- Expectations of compliance with 'expert authority'
 - The 'good disabled person'

Findings: Philosophical Area

We must consider the whole person and their whole history—as well as that of the social and cultural groups to which they belong.

We must recognize the role of power in the relationship between truster and trustee.

We cannot have expectations of trust, but must behave in trustworthy ways regardless.

Findings: Philosophical Area

We are currently finalizing the Framework, which will avoid the solutionist implications of providing a checklist or series of principles by instead providing processes (e.g. involve disability communities in design) and questions (e.g. “Have you stated your TOS in a clear and simple way that supports informed consent from users with intellectual disabilities, and at what reading level? How would you justify using that as your cutoff for inclusion?”; “Is your privacy policy informative and specific enough to support users with anxiety disorders?”).

A presentation on the Framework itself will be proposed for the ISTAS21/IEEE Ethics-2021 joint conference. Final publication venue of the full Framework, including the analyses from disability studies and postphenomenology, is yet to be determined but we will ensure Open Access publication.

Findings: Empirical Area

- Personal benefits of technology outweighing concerns over trust and privacy
- Communal benefits of technology
- Growing concerns, however, over trust and privacy issues with technology

Takeaways/Action Items

- Cost/benefit analysis when suggesting internet-connected devices
 - What will using this device mean for trust and privacy?
 - How transparent are the terms and policies for a particular device?
 - Is there a similar device that offers the same benefits with greater transparency?
- Technology check-in to address concerns with continued device use
 - Have your interactions with this device changed from the time of first use?
 - Have those changes shifted the trust and privacy for device use?
 - Are you ok with these shifts in trust and privacy?

Thank you!