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## **Diversity beyond disability in assistive technology**

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The field of assistive technology is constantly evolving to meet the needs of assistive technology users. Like any field, it is subject to changing understanding and perspectives of key concepts, as those perspectives change in the societies around us. In previous conversations, we have grappled with concepts including the use of person vs. identity first language (Best et. al., 2002) and the imperative to include assistive technology users in our research and development (Koontz et. al., 2022). These conversations have centred primarily on the experience of disability and assistive technology use, and ensuring we are inclusive in the work that we do. As a field, we have identified the importance of keeping the person, or assistive technology user, at the centre of our work, and discussed this concept in relation to the importance of client centred-practice (Desmond et al., 2018). However, we have fewer discussions about the need to embrace diversity beyond disability and to consider a wider range of human differences, and the intersections between them, in assistive technology research, service, product development, and policies.

Views about the relevance of diverse factors change over time and are often contested, for example the arc of understanding disability as medical condition (focused on bodily structures and health conditions), then socially constructed (focused on societal barriers) through to critical realist views, where a broad range of factors related to the body and its interaction with the environment, are acknowledged as instrumental in the experience of disability (Shakespeare, 2008; Koch, 2008). A similar arc has been evident when considering inclusion of people with disability in society – from advocacy from people living with disability for desegregation through to current calls to address diversity of abilities beyond a disabled/non-disabled binary.

In fields which are largely focused on topics relevant to disability, like assistive technology, we are often better equipped to understand diversity from a disability lens but fail to recognize other forms of

diversity among people which have a significant impact on our work. Considering diversity beyond disability requires us to address a range of human differences including (and certainly not limited to) race, ethnicity, sex, gender, sexual orientation, age, social class, religious or ethical values systems, and political beliefs.

Considering diversity (in multiple forms) in assistive technology requires us to pay closer attention to how we address issues of inclusion in development of products, how we provide services, the research we conduct on assistive technology products, services, and policies, and how our policies and systems impact a diverse range of people. It requires us to go beyond consideration of whether disabled people have been included in our work on assistive technology and consider whether we have adequately addressed other forms of diversity as well. This often requires learning (and unlearning) concepts which may feel familiar (i.e. sex and gender), drawing from leading and contemporary resources which help us to frame our understanding and approach (Australian Government, 2015; Canadian Institutes of Health Research, 2023).

Understanding concepts of intersectionality is critical to this conversation. Intersectionality refers to the interconnected nature of social categorization, which may include race, class, ability, sex, and gender, and often infers disadvantage and discrimination. Goethals et al observe that in our work with disabled people, we often consider disability first (or only) and assume heterogeneity among a group of people with disabilities, failing to recognize that they very likely do not all share the same perspectives based on their sex, gender, age, cultural and socio-economic experiences, and other differences (2015). Addressing intersectional diversity in our work requires us to consider our understanding of diversity in a more dynamic way. For example, in product development, taking a "Design for Dynamic Diversity" approach to design which actively engages with diverse users at all stages of research results in more usable technology for everyone and in turn is more inclusive (Newell, 2011).

It is also important for assistive technology researchers, practitioners, developers, and policy makers to consider their own experiences, insights, and perspectives from an intersectional lens. Each of our experiences, and those we contribute to a team, serve to inform the outcomes of our work. Teams which do not reflect the diversity we see in the population we serve may fail to adequately address the range of challenges and needs of that population. Acknowledging we are multiply situated in terms of social markers including race, sex, gender, social class, sexual orientation and more, opens the way to understanding our own intersectionality, and to better understand the nuances of individual perspectives, allowing us to design, research, collaborate and engage with assistive technology users accordingly.

The Assistive Technology Journal is committed to publishing inclusive assistive technology research and encourages researchers to consider diversity broadly when developing research teams, and planning and implementing research.

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