

# research snapshot

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## The Benefits of Co-Creation for Assistive Technology

### What is this research about?

Assistive technology (AT) is technology designed to assist people with disabilities, and involves many phases: design, creation, testing, and publishing. AT stakeholders consist of people with disabilities and their community, including peers, parents, teachers and caregivers. AT stakeholders are often brought into research during the testing phase. But how would AT change if stakeholders had a say in the design phase?

Knowledge mobilization (KMb) is about bringing together stakeholders and researchers to move towards a solution for a community need, and KMb tools help to include stakeholders in research projects. The researchers overcame logistical, research culture, and outreach issues to use KMb tools with stakeholders.

Working with stakeholders during the AT design phase has clear benefits. When AT is created for stakeholder needs, it improves their sense of having a say in the design. Thus, stakeholders gain more influence in the world and a stronger impact on KMb and KMb projects.

### What did the researchers do?

The researchers worked with York University's

### What you need to know:

Knowledge mobilization tools let researchers engage stakeholders earlier in a project. Making stakeholder concerns become the basis for a research question. Thus, research goals can change from being theoretical to practical, which develops assistive technology that is better suited to the needs of project stakeholders.

Knowledge Mobilization (KMb) Unit to learn how to bring stakeholder input into AT design. They also worked with CanAssist, an AT research entity at the University of Victoria. The program involves academics, stakeholders and professionals who work together to create AT for community concerns.

The researchers used Participatory Design (PD) methods as a means to include stakeholders at each stage of the research process. Together they developed AT for stakeholder needs. Reflective and thoughtful design methods allowed for theoretical context and sound design, while including stakeholder suggestions.

The researchers connected with four community stakeholders. These relationships have lasted from one to five years. Two ATs were developed through co-creation. A third AT is

being developed. Information about AT was shared through non-academic sources for all stakeholders to use. This included the use of Open Source resources, radio interviews, workshops and articles in non-academic journals.

### What did the researchers find?

The researchers learned to:

- Find a way to make sure stakeholder suggestions are integrated into AT design.
- Maintain relationships and clear goals to build trust with stakeholders.
- Be patient when more time and energy is needed to co-create with stakeholders.
- Meld together the methodology of Participatory Design (PD) and KMb practices.

AT became more useful because the project stakeholders were engaged with each research phase. Open source resources also helped to engage stakeholders. It personalized AT to a person's needs. It also serves as an important tool to measure the impact and benefit of research for stakeholders.

KMb services had positive effects for this process. Researchers learned how to engage with stakeholders by presenting research in plain language. The KMb Unit also helped form connections with stakeholders.

### How can you use this research?

Researchers who have not used KMb tools will learn about the positive impacts stakeholders can have when they are included at each stage of research. The importance of maintaining positive relationships with stakeholders is

outlined. Discussion of ways to keep good relationships with stakeholders will be a good starting point for researchers wanting to use KMb tools in their research. Researchers who employ the methodology of PD will understand the goals of PD and KMb are intertwined.

### About the Researchers

Melanie Baljko is an Associate Professor in the Department of Computer Science and Engineering at York University.

[mb@cse.yorku.ca](mailto:mb@cse.yorku.ca)

Foad Hamidi is a Ph.D. Candidate in Computer Science and Engineering at York University.

[fhamidi@cse.yorku.ca](mailto:fhamidi@cse.yorku.ca)

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### Keywords

Assistive technology, Knowledge mobilization, Participatory design, Co-creation, Disability

### Knowledge Mobilization at York

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[kmbunit@yorku.ca](mailto:kmbunit@yorku.ca)

[www.researchimpact.ca](http://www.researchimpact.ca)

