**Harness the power of tech   
for making your workplace inclusive**

For everything from communications, to point-of-sale to supply chain management, businesses rely on technology today. It’s ingrained in and integral to business operations. Artificial intelligence (AI) is revolutionizing how companies manage their supply chains; how customers pay at the point of sale; and how businesses recruit.

There’s a lot of power in emerging AI, and in other technology, that can be harnessed for making workplaces more diverse and inclusive. Developments in assistive technology (AT) are taking diversity and inclusion (D&I) to the next level. The needed mindshift isn’t far behind.

Notes one employment specialist in Brockville, Ontario, who’s closely involved with development of virtual reality modules for career exploration and works with career-seekers who have a disability:

“Businesses are thinking about technology for the impact on how they use it to affect their businesses, not for ‘how do we use it to bring in people.’ I don’t think the mindshift is going to take long to happen. I think it’ll be within the next one or two years, because businesses are already realizing the benefits from it on the operational side.”

**Technology makes accommodation easier than ever**

The Early Childhood Technical Assistance Center in Chapel Hill, NC, says AT is playing a big role in fostering more D&I in North American workplaces. IntelliGaze, for example, has since 2008 “empowered several thousand users around the globe,” according to the company’s website. It’s a communication system that enables people who have a physical disability to control their computers with their eyes.

With the technology that’s now readily available, making workplace accommodations for employees who have a disability has never been easier. Smartphones have built-in voice recognition software. There’s Google Assistant and Amazon Echo. In the latest versions of presentation software, such as Microsoft’s PowerPoint, there’s built-in voice recognition that automatically captions slide presentations.

“Artificial intelligence has been getting better and better, and in recent years there’s been this great increase in capability,” Saqib Shaikh, a Microsoft software engineer, said in an Associated Press video about some of the latest advancements in assistive technology with AI.

In 2018, Microsoft launched a US$25-million initiative billed as AI for Accessibility. It’s focused on building better AT for people who have a disability using the power of AI. Microsoft has already developed an experimental smartphone app called Seeing AI. It uses computer vision and voice narration to help people who are blind or partially sighted navigate their environment. Seeing AI reads everything from currency bills; to can labels; to sticky notes; to office-door nameplates.

There are also things such as the Brightsign data glove, developed by a U.K. start-up AT company. It will facilitate communication for people who are non-verbal. BrightSign can be personalized for custom hand gestures. And the glove can output speech in any language. This gives users complete control over sign-language libraries and verbal communication.

“It used to be that you had to work at a big AI company or a big-data company in order to harness the technologies in AI. But now there are so many open-source algorithms or repositories that people have access to, they can actually create a lot of these technologies themselves,” Zvita Krieger of the World Economic Forum told the AP in the video report on new innovations in AT.

**eVantage project**

In Ontario, a two-year project started in 2018 is looking at ways technology can be introduced and implemented in the workplace to alleviate dependencies on job coaches/developers/facilitators. The eVantage project is exploring technology and, more specifically, mainstream software and smart-device apps available on the Apple Store and Google Play, such as:

* calendars and checklists
* transit, mental health and weather apps

In all, seven community and employment services agencies are involved. The Ontario Disability Employment Network oversees project research and evaluation. The eVantage project goal is two-fold:

* Embrace technology to determine how apps can best help an employee who has a disability succeed in a role without reliance on a job coach
* Build capacity to improve effectiveness in employment supports; to enable virtual job coaching where possible; to assist users with task implementation/retention; and to assess workplace performance

In the eVantage project, one technology being harnessed to make workplaces more inclusive, is Avail Support. It’s an education-based software platform promoting learning and independence for people who have an intellectual disability. Among other things, Avail Support helps employees complete workplace tasks. The customizable task-analysis app breaks down tasks into smaller, achievable and measurable steps.

**Three categories of tech for workplace D&I**

Technology for making your workplace more inclusive essentially falls into three categories:

* **Accessible technology (AT).** This includes anything mainstream that’s designed to meet a variety of user needs and has AT solutions built into it.
* **Artificial intelligence (AI)**. Innovations in AI are making workplaces more inclusive and workplace experiences better for people who have a disability. There are significant AI advances in predictive text, visual recognition and voice-to-text transcription.
* **Intelligent voice assistants.** These are generally considered AI, but often talked about on their own because the use of this particular technology is so widespread.

**Affordable, portable solutions**

There’s a plethora of technology available for workplace accommodation. Sometimes the first thing people think is that “sophisticated and expensive devices” are needed, notes LD Online. It’s an organization that provides information for people who have a learning disability. There’s no need to feel overwhelmed — there are plenty of other options, the organization points out.

“AT can also be found in less complicated devices that are [affordable], such as talking calculators. AT can even be found in existing technology, such as the spell checker of a word processor,” LD Online says on its website.

There are other portable solutions including:

* **Digital audio recorders** — verbal instructions can be recorded and downloaded as an mp3 or .wav file
* **Reading pens** — they can be used to scan and read aloud single words, or lines of text
* **Colour-coded thumb drives** — different colours can be used for different information, and easily transported between workstations

**Understand the need first**

The key to properly and successfully harnessing the power of technology for workplace inclusion is this: Understand what the person needs so they can thrive, be productive and add value. There’s a five-step process for determining the most suitable technology solutions for making your workplace more inclusive:

* Define the situation
* Explore resources
* Choose the AT
* Implement AT accommodations
* Monitor and evaluate the AT solution

The return on investing in employees who have a disability far outweighs any dollar investment that may be required for accommodations, including AT. There are numerous business benefits stemming from using technology to make your workplace more inclusive of people who have a disability. These include increased productivity, overall growth and improved profitability. Not to mention improved employee engagement and higher retention. According to Statistics Canada, retention rates are 72% higher among staff who have a disability.

Having the right mindset about AT and embracing it for D&I in your workplace does more than create direct business benefits. It creates an organizational culture in which everyone feels safe, appreciated and valued — which drives more business benefits.

**Next in this series on recruiting and D&I:** The keys to creating an inclusive culture, and showing leadership in it.

*This article was supplied by the Ontario Disability Employment Network.*