ACCOMMODATIONS

TOOL 9: A CLOSER LOOK AT ASSISTIVE TECHNOLOGY

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TOOL 9: A CLOSER LOOK AT ASSISTIVE TECHNOLOGY

Who is this for

High priority
- Direct Managers

Practical Information
- IT Professionals

Useful to know
- HR professionals

What guidance does it provide?

- Information to help you understand different uses of assistive technology and how to best implement to support employees with disabilities
- Recommendations on current resources, devices, and models to accommodate employees with disabilities

Take-home points

- When an injury or disability can have or has consequences, a variety of processes are possible:
    - Treatment
    - Training
    - Rehabilitation
    - Vocational rehabilitation
    - Medical guidance
- The purpose of assistive devices is to solve users' practical problems and they should be part of a plan. Individual plans make for a more efficient provision of assistive devices.
- Please re-visit the tool to learn more on the various types of assistive devices and technologies

What is Assistive Technology?

The World Health Organization defines assistive technology and assistive products as: [1]

Assistive technology is an umbrella term that covers the application of organized knowledge and skills related to assistive products, including systems, and services. Assistive products maintain an individual's functioning and independence, thereby promoting their well-being.

In other words, assistive technology enables individuals, especially those with disabilities, to fully participate in education, employment, and society. The term includes any item, piece of equipment, or product system, whether acquired commercially or off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

With the global rise in disability and the aging population, assistive products - such as hearing aids, wheelchairs, communication aids, glasses, prostheses, pill organizers and memory aids, and more – will be required by 2 billion people by 2050. [1]

Did you know that access to assistive technology is a fundamental human right, a legal obligation for all countries within the Convention on the Rights of Persons with Disabilities and a prerequisite for the full and equitable achievement of the United Nations Sustainable Development Goals? [2]

THE ROLE OF ASSISTIVE TECHNOLOGY IN THE WORKPLACE

With recent changes in the workplace all across the world, businesses have pivoted to telework. With the need to maintain communication, collaboration, and productivity from remote locations, businesses have recognized – now more than ever – how essential assistive technology is in the world of employment.

Forward-thinking companies have started to build off this – they have embraced assistive technology as a strategic business advantage. Utilizing assistive technology solutions:

- Supports the employment of people with disabilities and enables them to reach their full potential, and productivity, in the workplace
- Widen your access to a skilled talent pool of people with disabilities during a labour market shortage
- Reduces the risk of legal ramifications or reputational impacts associated with failing to comply with the duty to accommodate
- Allows everyone (i.e., clients, colleagues, partners) to benefit from more intuitive, usable, and accessible products and services
- Allows businesses expand the geographic reach of talent pools. No longer are businesses tied to employing workers within the same city, province, and sometimes country.

What are some key considerations for selecting assistive technology?

Today, there is a wide array of assistive technology products, services, and systems on the market to support individuals who face work-related barriers. Yes, it can be daunting to think about sifting through hundreds of solutions to hand-pick the most suitable one for your employee or organization. But worry not – you don't have to do it alone. We've gathered best practice resources to shape your approach to acquiring assistive technology solutions in your organization and compiled some key considerations for how to determine if a given product or software is the right one for you.

For more information on selecting assistive techniques and tools, please visit: https://www.w3.org/WAI/people-use-web/tools-techniques/

Business Disability Forum's Approach to Assistive Technology

Business Disability Forum has developed an excellent guide for supporting staff with their approach to assistive technology.3 Their recommendations stem from accessibility leaders at Texthelp, KPMG, ATOS, Enterprise, and the UK government. Business Disability Forum's recommendations include: [3]

1. **Keep your cool:**
   - Take your time with purchasing decisions and implement your assistive technology strategy with confidence.
2. **Everyone's different:**
   - Every staff member is unique – make sure assistive technology solutions are flexible and have features that can be personalized.
3. **Don't get tied down:**
   - The portability of software and services is an important consideration, especially with increased remote work.
4. **Hard choices:**
   - Your choice of assistive technology software should be accessible on any type of device (e.g., PC, Mac, tablet, etc.).
5. **Smooth or stepped:**
   - Continuous delivery such as subscription models and software as services are becoming increasingly common but may conflict with IT policies preventing automatic network-wide updates. Determine what works best for your organization.
6. **It's all about you:**
   - Challenge potential assistive technology providers to see if they are receptive to user feedback, and make your organization's needs clear.
7. **Staying up to date:**
   - Automatic updates, bug fixes, and version upgrades may impact compatibility and performance of assistive technology software. Ensure that those who use assistive technology have smooth installation and uninterrupted, ongoing provision.
8. **Seeing the bigger picture:**
   - Making assistive technology openly available to all staff helps create a truly inclusive environment, reducing barriers and stigmas by normalizing its use across the workforce.

Keep in mind that one size does not fit all. Assistive products, software, and systems are unique, and so are your employees. What works for one user may not work for another user. Where possible, encourage trialing

Identifying Assistive Devices and Product

Sometimes, employees will make a direct request for a specific assistive device or product. In other instances, you may come to find, through the collaborative accommodation process, that your worker may benefit from an assistive device or product. In both of these circumstances, the work you must do to identify the optimal solution can be guided by the following steps: [4]

GOAL ANALYSIS

IDENTIFICATION OF PROBLEMS

PROBLEM SOLVING

EVALUATION

FOLLOW-UP

Identifying Assistive Devices and Product

The first step in an assistive device accommodation process is through goal analysis based on the user's own requirements and wishes. The work can then be initiated by determining which problems have to be solved and how they are to be solved. The solutions must be evaluated and if necessary, followed up with new solutions or adjustments in the goals

The purpose of assistive devices is to solve user's practical problems and they should be part of an accommodation plan. Individual plans make for a more efficient provision of assistive devices. This type of plan shows what various services and professional groups must do to achieve the goals.

In other words, assistive technology enables individuals, especially those with disabilities, to fully participate in education, employment, and society. The term includes any item, piece of equipment, or product system, whether acquired commercially or off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

"At a time when in-person encounters and accessibility have become more challenging, donating devices so Canadians with sight loss can remain connected with loved ones and more easily navigate daily tasks is one way we can help create a society with zero barriers to inclusion. We're proud to support CNIB's Phone it Forward program as part of our Purpose to Boldly Grow the Good in business and in life." - Mona Malone, Chief Human Resources Officer and Head of People and Culture, BMO Financial Group.

TYPES OF ASSISTIVE TECHNOLOGY

The most commonly requested accommodation in the workplace is assistive technology. It may not surprise you to learn that assistive technology may fit into more than one category, depending upon a person's needs as well as how and where that person uses the assistive technology. [5]

Vision

- magnifiers
- talking devices such as a talking thermostat
- Braille displays
- screen reading software
- text-to-speech systems using Optical Character Recognition
- large print materials
- phones with large tactile button

Hearing

- personal amplification systems
- wireless TV listening systems
- vibrating alarm clocks
- doorbell with flashing light alert
- portable closed captioning system
- face-to-face dual keyboard communication system
- amplified telephones
- phone with captioning
- mobile devices with texting or specialized apps

Speech Communication

- voice amplification systems
- fluency assistance devices
- communication boards
- speech output software
- symbol-making software
- speech generating devices

Learning, Cognitive, Developmental

- memory aids
- text-to-speech systems
- reminder systems
- notetaking systems
- mobile devices w/ specialized apps
- audio books

TYPES OF ASSISTIVE TECHNOLOGY

Mobility, Seating & Positioning

- wheelchairs
- walkers
- canes
- crutches
- scooters
- power chairs as well as products designed to provide postural and pressure management

Daily Tasks

- reacher
- adapted kitchen tools and eating utensils
- walker carrying bag,
- wheelchair cup holder
- book stand
- automatic soap dispenser
- switch-adapted appliances

Environmental Adaptations

- door openers
- lifts
- ramps
- systems designed to remotely control appliances
- electronics
- other products using a switch, voice, or other method of activation

Transportation

- hand controls
- tie and lock downs for securing a wheelchair to the floor of the vehicle
- ramps
- lifts
- raised roofs
- adaptive seat belts

Software & Hardware

- specialized software such as screen magnification software for people with low vision
- alternative keyboards and input devices
- voice recognition

"Many people aren't aware of how impactful a smartphone can be for people of all ages with sight loss. Accessible smartphone apps make it possible for people who are blind or partially sighted to do all kinds of things that may have seemed impossible before – from digitally enhanced learning to communicating with loved ones, or taking the proper dosage of medication. Thanks to BMO's generous donation, we'll be able to empower Canadians with sight loss to take full advantage of the life-changing power of smart devices." - John M. Rafferty, President and CEO of CNIB.

Ergonomics In the Workplace

The Canadian Centre for Occupational Health and Safety defines ergonomics as the science of matching the job to the worker and the product to the user. [6] It involves designing workstations, work processes, equipment, and tools to fit the employee. It is important for workers to know how to adjust their office workstations to suit their individual needs.

Identifying Barriers to Access

An important part of the ergonomic process is a periodic review of the facility, specific workstation designs and work practices, and the overall production process. This includes identifying existing problems, which can be obtained by [7] reviewing the company's injury and illness logs, workers' compensation records, and worker reports of problems.

However, a more forward-looking approach, to be used in combination with reviewing injury and illness records, is to be proactive in identifying potential ergonomic issues that have gone unnoticed or resulted from environmental and job description changes. Observations of workplace conditions and work processes, ergonomic job analyses, workplace surveys, and worker interviews are common proactive methods for identifying ergonomics-related injury risks.

For more information, knowledge trade and training opportunities, visit Neil Squire to learn more about Assistive Technology Solutions: https://www.neilsquire.ca/individual-programs-services/solutions/

https://www.youtube.com/embed/W5eiYH54efc?feature=oembed

What resources are out there to help me?

Whether you're searching for new software to support your employees or want to design and enhance your overall assistive technology strategy, there are plenty of resources out there to support you.

Business Disability International

The Global Taskforce Programme: The Charter

Business Disability International and their business task force on accessibility technology is a fitting starting point for organizations looking to up their investment in assistive technology. They have developed a charter that any Canadian business can adopt, focusing on the commitment to accessible information and communication technology. Follow this link: https://businessdisabilityforum.org.uk/networks-and-taskforces/technology-taskforce/ to the charter and other resources from the Business Taskforce on Accessible Technology.

The Global Taskforce Programme: The Accessibility Maturity Model

The Accessibility Maturity Model (AMM) is one of the key tools designed and used by the Technology Taskforce. It is a self-assessment tool which enables organizations to drill down to get more information on different levels of IT accessibility. The tool is designed to be informative, and action orientated - allowing you to see your organization's current IT accessibility performance and support you in making decisions about future focus areas.

The 10 areas of the AMM are the same as the 10 Accessible Technology Charter points, so the Charter is about making the commitment, the AMM is measuring how you are doing and identifying areas for improvement.

The AMM, as well as resources and suggestions for how the model can be used in your organization, can be found on the business disability forum website.

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Assistive Technology Programs and Funding

Hire For Talent: Programs and Funding

Hire for Talent is a national project that delivers a Canada-wide awareness campaign aimed at increasing the confidence of employers when hiring people with disabilities. The awareness campaign also aims to increase employer awareness about how people with disabilities a talented part of is the workforce, and will provide resources to help employers tap into this talent pool during their search for skilled workers.

Access Assistive Technology Canada

Access Assistive Technology Canada aims are to examine how assistive technology are accessed by Canadians to identify funding and service gaps; and to explore ethical issues on equity of access to assistive technology. We are working with assistive technology users, caregivers, care providers, policymakers, and other stakeholders to support the development of strategies and policies that can improve access in a fair way.

On Access Assistive Technology Canada's website, users can search for which government and charity programs offer assistive technology funding and services in Canada and its provinces and territories. Results can be sorted according to geographical locations, and types of assistive technology that best suit your needs.

REFERENCES

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